



Pathology Laboratory
Specimen Collection Guide

Version 20

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Collection Information

For Sidra staff, more information regarding the collection of specimens refer to the following documents.

Document Name	Location
PRO – O – Collection, Labelling, Handling and Transport of Biological Specimens for Internal Laboratory Testing	PRO Collection, Labelling, Handling and Transport of Biological Specimens for Internal Laboratory Testing

Tests not performed by the Pathology Laboratory at Sidra are identified by ***EX*** after the test name.

HMC = Hamad Medical Corporation, Qatar

Mayo = Mayo Clinic Laboratories, US

The **\$** sign in this laboratory handbook relates to the approximate price for each send out test (currently only for non-HMC).

\$ = any test with a price of <100\$

\$\$ = any test with a price of >100 - <300\$

\$\$\$ = any test with a price of >300\$ - <1000\$

\$\$\$\$ = any test with a price of >1000\$

For requests from outside Sidra Medicine, please contact the Pathology Department on 4003 3000 for further enquiries.



Division of Anatomical Pathology



Histopathology and Morgue

Test Name	Pathology Morgue Deceased Patient Request
Order Schedule	<p>AP Laboratory opening hours: 07:30-15:30 Sunday to Thursday (H2M-24000)</p> <p>Morgue opening hours 07:30-15:30 Sunday - Thursday (HM-33013)</p> <p>AP On-call (24/7): +974 3136 1305</p>
Order Information	<p>After death of liveborn, child or adult</p> <p>Ensure death notification or forensic case, legal documents, consideration of autopsy examination, and identification have been completed as on the ward checklist.</p> <p>Information required at the time of order:</p> <ul style="list-style-type: none"> Collection date and time Clinical information CallBack Number Deceased Date/Time Infection Category Radioactive/Cytotoxic Medical/Police(Forensic) Location of Death Autopsy Consent Autopsy Type Reason for Autopsy Social Work contact Ordering Physician Order Date/Time Order Communication Type <p>Orders placed (Duplicate, incorrect, or otherwise), where the body is not received in the Morgue within one (1) month of ordering will be cancelled.</p>
Collection Instructions	<p>Order label (Julian label) printed x2 and attached to appropriate body tag.</p> <p>Infection status needs to be communicated to Morgue prior to transportation.</p> <p>Send to Morgue.</p>
Turnaround Time	<p>If autopsy:</p> <p>Preliminary report 2 working days after examination.</p> <p>Final report under 60 working days after examination.</p>

Test Name	Pathology Morgue Fetal Loss <20 Weeks Request
Order Schedule	<p>AP Laboratory opening hours: 07:30-15:30 Sunday to Thursday (H2M-24000)</p> <p>Morgue opening hours 07:30-15:30 Sunday - Thursday (HM-33013)</p> <p>AP On-call (24/7): +974 3136 1305</p>
Order Information	<p>Fetal loss <20 weeks</p> <p>Ensure consideration of autopsy examination and identification have been completed as on the ward checklist.</p> <p>Information required at the time of order: Collection date and time Clinical information (gestational age) CallBack Number Infection Category Medical/Police(Forensic) Autopsy Consent Autopsy Type Social Work contact Gestational age Order of Delivery Ordering Physician Order Date/Time Order Communication Type</p> <p>Orders placed (Duplicate, incorrect, or otherwise), where the body is not received in the Morgue within one (1) month of ordering will be cancelled.</p>
Collection Instructions	<p>Place in appropriate size container with Julian labels attached. Send fresh to Morgue as soon as possible.</p>
Turnaround Time	<p>If autopsy: Preliminary report 2 working days after examination. Final report under 60 working days after examination.</p>
Fetuses for burial/Disposal only	<p>Fetuses, not requiring pathology examination, should be sent to the Department of Pathology and accompanied by a Pathology Morgue Fetal Loss <20 Weeks Request. The order should clearly state 'No examination required, for disposal only'. These will receive a group burial, unless other arrangements are made.</p>

Test Name	Pathology Morgue Still Birth Request
Order Schedule	<p>AP Laboratory opening hours: 07:30-15:30 Sunday to Thursday (H2M-24000)</p> <p>Morgue opening hours 07:30-15:30 Sunday - Thursday (HM-33013)</p> <p>AP On-call (24/7): +974 3136 1305</p>
Order Information	<p>Fetal loss >/=20 weeks</p> <p>Ensure fetal death notification, consideration of autopsy examination, and identification have been completed as on the ward checklist.</p> <p>Information required at the time of order: Collection date and time Clinical information (gestational age) CallBack Number Infection Category Medical/Police(Forensic) Autopsy Consent Autopsy Type Social Work contact Gestational age Order of delivery Ordering Physician Order Date/Time Order Communication Type</p> <p>Orders placed (Duplicate, incorrect, or otherwise), where the body is not received in the Morgue within one (1) month of ordering will be cancelled.</p>
Collection Instructions	<p>Order label (Julian label) printed x2 and attached to appropriate body tag.</p> <p>Infection status needs to be communicated to Morgue prior to transportation.</p> <p>Send to Morgue.</p>
Turnaround Time	<p>If autopsy: Preliminary report 2 working days after examination. Final report under 60 working days after examination.</p>

Test Name	Pathology Tissue Request
<p>Order Schedule</p>	<p>Tumors, frozen sections, IR liver biopsies, IR renal biopsies, Muscle biopsies and HD pull-throughs must be scheduled with the AP laboratory at least 24 hours in advance. AP Laboratory opening hours: 07:30-15:30 Sunday to Thursday (H2M-24000) Morgue opening hours 07:30-15:30 Sunday - Thursday (HM-33013) AP On-call (24/7): +974 3136 1305</p>
<p>Order Information</p>	<p>Information required at the time of order: Frozen Section: Y/N Danger of Infection / High Risk: Y/N Specimen Description: Site (and laterality, if required) Pre-operative diagnosis Clinical Information: Provide all relevant information CallBack Number: Physician’s mobile number, in case of queries</p> <p>Orders placed (Duplicate, incorrect, or otherwise), where the specimen is not received in the laboratory within one (1) month of ordering will be cancelled.</p> <p>Please note that some pathology tissue requests require that additional testing (such as immunohistochemistry or genetic testing) be performed in order to complete the diagnosis: for example, to confirm malignancy or other significant diagnosis. In these cases, the pathologist will add the required additional tests only in cases where it is clinically necessary. Patients who pay ahead of time for routine pathological analysis may therefore encounter additional charges which are only applied later.</p>
<p>Collection Instructions</p>	<p>1 Order = 1 Specimen site = 1 Pot</p> <p>Each pot must have a unique Julian Number/Label</p> <p>All specimens must include the (handwritten) date/time specimen was placed into pot.</p> <p>Cerner WILL NOT ALLOW a specimen to be processed until the order is fully and correctly completed, i.e. ALL errors have been corrected.</p> <p>It is the Doctor’s responsibility to correct or cancel incorrect orders. Failure to do so initiates the lost specimen procedure involving Datix and escalation to Line Manager. Per policy, AP staff are not allowed to re-label specimens. Once received, to maintain chain of custody, specimens CANNOT be returned to their originating source for correction.</p> <p>See table below for specific specimen requirements.</p>

Turnaround Time	<p><u>Routine</u>: 7 calendar days <u>Complex</u>: may take longer than 7 days <u>Urgent</u>: As soon as possible depending on the histological techniques the tissue sample need to be subjected to. <u>Frozen Section</u>: 30 minutes</p>
Tissue for disposal only	<p>Tissues not requiring pathology examination (e.g. Non-medical circumcision, routine placentas) should be disposed in surgical waste.</p> <p>Large amputations, not requiring pathology examination, should be sent to the Department of Pathology and accompanied by a Pathology Tissue Request. The order should clearly state 'No examination required, for disposal only'. These will receive a group burial, unless other arrangements are made.</p> <p>NOTE: Fetuses should be sent with a Pathology Morgue Fetal Loss <20 Weeks Request.</p>

Test Name	Pathology Tissue Request-Upper GI Pathology Tissue Request - Lower GI Pathology Tissue Request - GI-U and L
Order Schedule	AP Laboratory opening hours: 07:30-15:30 Sunday to Thursday (H2M-24000) Morgue opening hours 07:30-15:30 Sunday - Thursday (HM-33013) AP On-call (24/7): +974 3136 1305
Order Information	<p>Tick the boxes of the specimens to be collected. The first box must be checked; Modify the specimen description of subsequent specimens, if necessary.</p> <p>Orders placed (Duplicate, incorrect, or otherwise), where the specimen is not received in the laboratory within one (1) month of ordering will be cancelled.</p> <p>Please note that some pathology tissue requests require that additional testing (such as immunohistochemistry or genetic testing) be performed in order to complete the diagnosis: for example, to confirm malignancy or other significant diagnosis. In these cases, the pathologist will add the required additional tests only in cases where it is clinically necessary. Patients who pay ahead of time for routine pathological analysis may therefore encounter additional charges which are only applied later.</p>
Collection Instructions	<p>Additional training is required before usage, contact PEARL Team.</p> <p>1 Order = 1 Specimen site = 1 Pot</p> <p>Each pot must have a unique Julian Number/Label</p> <p>All specimens must include the (handwritten) date/time specimen was placed into pot.</p> <p>Cerner WILL NOT ALLOW a specimen to be processed until the order is fully, and correctly completed i.e. ALL errors have been corrected.</p> <p>It is the Doctor's responsibility to correct, or cancel incorrect orders. Failure to do so initiates the lost specimen procedure, involving Datix, and escalation to Line Manager. Per policy, AP staff are not allowed to re-label specimens. Once received, to maintain chain of custody, specimens CANNOT be returned to their originating source for correction.</p> <p>See table below for specific specimen requirements.</p>
Turnaround Time	<u>Routine</u> : 7 calendar days <u>Complex</u> : may take longer than 7 days

	<p><u>Urgent</u>: As soon as possible depending on the histological techniques the tissue sample need to be subjected to.</p> <p><u>Frozen Section</u>: 30 minutes</p>
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Test Name	Pathology Tissue Request - Multiple Samples
<p>Order Schedule</p>	<p>Tumors, frozen sections, IR liver biopsies, IR renal biopsies, muscle biopsies and HD pull-throughs must be scheduled with the AP laboratory at least 24 hours in advance. AP Laboratory opening hours: 07:30-15:30 Sunday to Thursday (H2M-24000) Morgue opening hours 07:30-15:30 Sunday - Thursday (HM-33013) AP On-call (24/7): +974 3136 1305</p>
<p>Order Information</p>	<p>Tick the boxes of the specimens to be collected. The first box must be checked; Modify the specimen description of subsequent specimens, if necessary.</p> <p>Orders placed (Duplicate, incorrect, or otherwise), where the specimen is not received in the laboratory within one (1) month of ordering will be cancelled.</p> <p>Please note that some pathology tissue requests require that additional testing (such as immunohistochemistry or genetic testing) be performed in order to complete the diagnosis: for example, to confirm malignancy or other significant diagnosis. In these cases, the pathologist will add the required additional tests only in cases where it is clinically necessary. Patients who pay ahead of time for routine pathological analysis may therefore encounter additional charges which are only applied later.</p>
<p>Collection Instructions</p>	<p>Additional training is required before usage, contact PEARL Team.</p> <p>1 Order = 1 Specimen site = 1 Pot</p> <p>Each pot must have a unique Julian Number/Label</p> <p>All specimens must include the (handwritten) date/time specimen was placed into pot.</p> <p>Cerner WILL NOT ALLOW a specimen to be processed until the order is fully, and correctly completed i.e. ALL errors have been corrected.</p> <p>It is the Doctor's responsibility to correct, or cancel incorrect orders. Failure to do so initiates the lost specimen procedure, involving Datix, and escalation to Line Manager. Per policy, AP staff are not allowed to re-label specimens. Once received, to maintain chain of custody, specimens CANNOT be returned to their originating source for correction.</p> <p>See table below for specific specimen requirements.</p>
<p>Turnaround Time</p>	<p><u>Routine</u>: 7 calendar days <u>Complex</u>: may take longer than 7 days</p>

	<p><u>Urgent</u>: As soon as possible depending on the histological techniques the tissue sample need to be subjected to.</p> <p><u>Frozen Section</u>: 30 minutes</p>
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Specimen	Container	When	Where
Routine small specimens	Formalin	ASAP or Batches	<p><u>During working hours:</u> AP Specimen Reception (H2M-24100) OR Pathology Main Specimen Reception (H2M-24068)</p> <p><u>Overnight/Weekend (AP Closed):</u> Pathology Main Specimen Reception (H2M-24068)</p>
Tumour Liver Bx Renal Bx (Via IR) Muscle Biopsies HD Pull-through Frozen Section	Fresh	<p><u>During working hours:</u> Immediately (24hrs notice required)</p> <p><u>Overnight/Weekend:</u> Not acceptable unless prior arrangements made (AP is not 24/7)</p>	
Ancillary Testing e.g. - Infectious - Molecular - Lymph Node - Flow Cytometry - Virology - Shared Specimen	Fresh	<p><u>During working hours:</u> ASAP</p> <p><u>Overnight/Weekend:</u> Not acceptable unless prior arrangements made (AP is not 24/7)</p>	
Large specimens e.g. - Placenta - Bowel - Kidney - Liver - POC	Fresh	<p><u>During working hours:</u> ASAP</p> <p><u>Overnight/Weekend:</u> ASAP</p>	



Division of Clinical Biochemistry



Clinical Biochemistry

aTest Orderable	17 Hydroxyprogesterone *EX*
Synonym(s)	17OHP, 17 – d Hydroxyprogesterone
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	Send to lab within one hour
Routine Turnaround Time	Sendaway: 2-4 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	5 Aminolevulinic Acid Urine *EX*
Synonym(s)	ALA
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	5 mL
Special Handling Requirements	Sample to be frozen on receipt by Laboratory staff
Routine Turnaround Time	Sendaway: up to 1 week
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	5 HIAA 24 Hour Urine *EX*
Synonym(s)	5-hydroxyindoleacetic acid 24 Hr Urine
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: 24 Hr Urine Container
Volume (recommended)	24 Hr Urine volume
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	5-Hydroxyindoleacetic Acid Urine (Spot urine) *EX*
Synonym(s)	5 HIAA Urine
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	5 mL
Special Handling Requirements	
Routine Turnaround Time	
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	6 Thioguanine *EX* \$\$
Synonym(s)	6-TGN, TGN
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: EDTA
Volume (recommended)	5 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: 2-4 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Acetaminophen Level
Synonym(s)	Paracetamol Level
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	Sidra
Routine Turnaround Time	4 Hours
Urgent Turnaround Time	1 Hours
STAT Turnaround Time	1 Hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
N/A for Acetaminophen							10

For known acetaminophen exposure, a sample should be taken at 4 hours from ingestion of any suspected overdose. If the patient presents later than 4 hours then take the sample immediately. As a screening test for unknown ingestions or ingestions with intent of self-harm, a screening acetaminophen assay may be taken immediately.

Test Orderable		Adrenocorticotrophic Hormone *EX*
Synonym(s)	ACTH	
Testing Location (if not Sidra)	HMC	
Specimen Type(s)	Blood	
Container(s)	0-2y: Map EDTA 2y-150y: EDTA	
Volume (recommended)	Microtainer: 0.5 mL EDTA: 1.0 mL	
Special Handling Requirements	Keep On Ice	
Routine Turnaround Time	Sendaway: up to 1 week	
Urgent Turnaround Time		
STAT Turnaround Time		

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Alanine Aminotransferase
Synonym(s)	ALT
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	<1 year	Both	6	33	IU/L		>360
1 year	< 13 years	Both	10	25	IU/L		>360
13 years	< 19 years	Female	9	22	IU/L		>360
13 years	< 19 years	Male	10	24	IU/L		>360
19 years	150 years	Male		<50	IU/L		>360
19 years	150 years	Female		<35	IU/L		>360

Test Orderable	Albumin Level
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	< 15 days	Both	31	43	g/L		
15 days	< 1 year	Both	28	48	g/L		
1 year	< 8 years	Both	38	47	g/L		
8 years	< 15 years	Both	39	49	g/L		
15 years	< 19 years	Male	40	52	g/L		
15 years	< 19 years	Female	38	51	g/L		
19 years	150 years	Both	35	52	g/L		

Test Orderable	Albumin Level 24 Hour Urine
Synonym(s)	24 Hour Urine Albumin Level, 24hr Urine Microalbumin
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: 24 Hr Urine Container
Volume (recommended)	24 Hr Urine volume
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	N/A

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both	0	30	mg/24hrs		

Test Orderable	Albumin Level Urine
Synonym(s)	Urine Albumin
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	5 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	N/A

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both	See below	See below	mg/L		

Note: There should be no/minimal albumin in urine. Results should be interpreted in the clinical context.

Test Orderable	Microalbumin (Spot Urine)
Synonym(s)	Urine albumin, albumin:creatinine ratio, ACR
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	5 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	N/A

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both	0	3	mg/mmol		

Test Orderable	Aldolase *EX* \$
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Volume (recommended)	2 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Aldosterone *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Blood
Container(s)	0-2y: Map EDTA 2y-150y: EDTA
Volume (recommended)	Microtainer: 0.5 mL EDTA: 1.0 mL
Special Handling Requirements	Send to lab within one hour of collection
Routine Turnaround Time	Sendaway: up to 1 week
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Alkaline Phosphatase
Synonym(s)	ALP
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	< 15 days	Both	91	281	IU/L		
15 days	< 1 year	Both	137	535	IU/L		
1 year	< 10 years	Both	160	381	IU/L		
10 years	< 13 years	Both	144	475	IU/L		
13 years	< 15 years	Female	62	288	IU/L		
13 years	< 15 years	Male	130	534	IU/L		
15 years	< 17 years	Female	54	131	IU/L		
15 years	< 17 years	Male	90	377	IU/L		
17 years	< 19 years	Female	48	96	IU/L		
17 years	< 19 years	Male	59	168	IU/L		
19 years	150 years	Male	43	115	IU/L		
19 years	< 50 years	Female	33	98	IU/L		
50 years	150 years	Female	43	115	IU/L		

Test Orderable	Alkaline Phosphatase Isoenzymes *EX*
Synonym(s)	ALPI
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Volume (recommended)	1.0 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Alpha 1 Acid Glycoprotein *EX* \$
Synonym(s)	Orosomucoid
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Volume (recommended)	2 mL
Special Handling Requirements	Overnight fast preferable
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

The preferred sample is collected following an overnight fast.

Test Orderable	Alpha Fetoprotein Tumour Marker
Synonym(s)	AFP
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 Hours
STAT Turnaround Time	2 hours

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	<4 months	Both	28	>2478	kIU/L		
4 months	<9 months	Both	1	94	kIU/L		
9 months	<2.5 years	Both	1	33	kIU/L		
2.5 months	<19 years	Both	0	4	kIU/L		
19 years	150 years	Female	0	6	kIU/L		
19 years	150 years	Male	1	7	kIU/L		

Note that no upper reference limit is quoted for AFP in the 0-4 month age group.

This assay is performed using an immunoassay manufactured by Beckman Coulter, and results may not be comparable to those obtained from other manufacturer's methods.

Test Orderable	Alpha-Fetoprotein, Cerebrospinal Fluid *EX* \$
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	CSF
Container(s)	0-150 years: Sterile vial
Volume (recommended)	1mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Alpha-1-Antitrypsin *EX*
Synonym(s)	A1AT, AAT
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Blood
Container(s)	0-150 years: SST
Volume (recommended)	2mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Alpha-1-Antitrypsin Phenotype *EX* \$\$\$
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: SST
Volume (recommended)	2.5 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Aluminium Level *EX* \$\$
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: Metal Free
Volume (recommended)	2 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Amikacin Level (Once Daily Dosing Pre-Dose)
Synonym(s)	Amikin Lvl OD
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Target level							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both		<3	mg/L		>5

Sample to be taken pre-dose

- Children's and Adult Antibiotic Guidelines: [Sidra Portal - Clinical Guidelines](#),
- [Lexicomp](#)

Test Orderable	Amikacin Level Peak
Synonym(s)	Amikin Lvl Peak
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Target level							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both	20	35	mg/L		> 35

Measurement of peak concentrations is not routinely recommended. If necessary this is taken 1 hour post-dose.

Test Orderable	Amikacin Level Random
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hours
STAT Turnaround Time	1 hour

Target level							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both			mg/L		

Note that all random values will be communicated.

Test Orderable	Amikacin Level Trough
Synonym(s)	Amikin Lvl Trough
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Target level							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both	2.5	10	mg/L		> 10

Sample to be collected pre-dose (trough).

Test Orderable	Amino Acids (Plasma, Quantitative) *EX*
Synonym(s)	Plasma Amino Acids
Testing Location	HMC
Specimen Type(s)	Whole Blood
Container(s)	0-2 years: MAP EDTA 2 – 150 years: EDTA
Volume (minimum)	MAP EDTA: 0.5 mL EDTA Tube: 1.0 mL
Patient Preparation	Fasting (overnight preferred, 4 hours minimum). Infants should be drawn just before next feeding (2-3 hours without total parenteral nutrition, if possible).
Special Handling Requirements	Transport immediately to the laboratory.
Routine Turnaround Time	
Urgent Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Amino Acids Quantitative Urine *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Amiodarone Level *EX* \$\$
Synonym(s)	Cordarone Lvl
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Volume (recommended)	3 mL
Special Handling Requirements	Sample must be collected at least 12 hours post-dose
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Amitriptyline and Nortriptyline Levels *EX*
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Volume (recommended)	1.0 mL
Special Handling Requirements	Sample must be collected at least 12 hours post-dose. Laboratory staff must centrifuge and separate serum within within 2 hours of receipt.
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Ammonia Level
Synonym(s)	NH3+ Level
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep 2y-150y: Li Heparin
Volume (recommended)	Li Heparin Microtainer: 0.5 mL Li Heparin: 1.0 mL
Special Handling Requirements	Transport to the laboratory immediately following venepuncture, and on ice if available.
Routine Turnaround Time	1 hour
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	<1 month	Both	<10	99	µmol/L		>149
1 month	< 17 years	Both	<10	49	µmol/L		>149
17 years	150 years	Both	<10	72	µmol/L		>149

Test Orderable	Amphetamine Screen Urine *EX*
Synonym(s)	Urine Amphetamine Screen
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 1 week
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Amylase Level
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-1/2y: Micro Li Hep Gel 1/2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	< 15 days	Both	0	6	U/L		>29
15 days	< 13 weeks	Both	0	17	U/L		>84
13 weeks	< 1 year	Both	0	43	U/L		>214
1 year	< 19 years	Both	20	90	U/L		>449
19 years	150 years	Both	22	80	U/L		>399

Test Orderable	Amylase Level 24 Hour Urine *EX*
Synonym(s)	24 Hour Urine Amylase Level, Urine 24 Hour Amylase Level
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: 24 Hr Urine Container
Volume (recommended)	24 Hr Urine volume
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 1 week
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Amylase Level Urine *EX*
Synonym(s)	Urine Amylase Level
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	2 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 1 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Androstenedione *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Plain 2y-150y: Plain
Volume (recommended)	Microtainer: 0.5 mL Plain: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMaC Lab Guide							

Test Orderable	Angiotensin Converting Enzyme *EX* \$
Synonym(s)	ACE
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: Micro SST or SST
Volume (recommended)	2 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Anti-Mullerian Hormone
Synonym(s)	AMH
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	Send to laboratory within one hour of collection.
Routine Turnaround Time	Assay performed every Sunday and Wednesday. Please contact the on-call Biochemistry Consultant (via AMION) if urgent analysis is clinically indicated.
Urgent Turnaround Time	N/A
STAT Turnaround Time	N/A

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0 Minutes	3 Days	Male	72.7	628.5	pmol/L		
3 Days	8 Days	Male	119.3	1112.1	pmol/L		
8 Days	11 Days	Male	193.2	1074.2	pmol/L		
11 Days	21 Days	Male	211.2	987.5	pmol/L		
21 Days	29 Days	Male	201.1	1055.4	pmol/L		
29 Days	1 Years	Male	288.0	1242.4	pmol/L		
1 Years	5 Years	Male	282.1	1525.9	pmol/L		
5 Years	9 Years	Male	221.2	1062.7	pmol/L		
9 Years	12 Years	Male	84.3	1109.5	pmol/L		
12 Years	15 Years	Male	3.6	444.5			
15 Years	18 Years	Male	16.1	120.4			
18 Years	150 Years	Male	5.2	114.6			
0 Minutes	29 Days	Female	0.0	4.1			
29 Days	1 Years	Female	0.1	38.6			
1 Years	5 Years	Female	1.3	50.8			
5 Years	8 Years	Female	0.8	51.4			
8 Years	12 Years	Female	2.3	68.2			
12 Years	15 Years	Female	3.2	55.4			
15 Years	18 Years	Female	2.4	74.4			
18 Years	26 Years	Female	6.8	95.2			
26 Years	31 Years	Female	1.2	52.7			
31 Years	36 Years	Female	0.5	52.5			
36 Years	41 Years	Female	0.2	51.0			
41 Years	46 Years	Female	0.0	23.4			
46 Years	150 Years	Female	0.0	8.2			

Test Orderable	Aspartate Aminotransferase
Synonym(s)	AST
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	< 15 days	Both	34	166	IU/L		>450
15 days	< 1 year	Both	22	70	IU/L		>450
1 year	< 7 years	Both	23	46	IU/L		>450
7 years	< 12 years	Both	20	38	IU/L		>450
12 years	< 19 years	Female	15	28	IU/L		>450
12 years	< 19 years	Male	16	37	IU/L		>450
19 years	150 years	Male		<50	IU/L		>450
19 years	150 years	Female		<35	IU/L		>450

Test Orderable	Basic Metabolic Panel – with Glucose
Synonym(s)	BMP
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel and Micro Fluoride Oxalate 2y-150y: SST and Fluoride Oxalate
Volume (recommended)	Microtainer: 1.5 mL in each tube SST: 1.0 mL in each tube Fluoride Oxalate 1.0 ml
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Panel includes the following analytes:

Sodium, Chloride, Potassium, Total CO₂ (bicarbonate), Urea, Creatinine, eGFR (if appropriate) and Calcium. Albumin will be added by default at the ordering stage (on Cerner), but may also be omitted by the ordering Physician if adjusted calcium is not required.

Please note: If a Fluoride Oxalate sample is not received, Glucose will only be performed if the SST is received within 6 hours of sample collection.

Please refer to individual analytes for reference intervals

Test Orderable	Benzodiazepine Screen Urine *EX*
Synonym(s)	Urine Benzodiazepine Screen
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 1 week
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Beta 2 Microglobulin Urine *EX* \$
Synonym(s)	B2M
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Beta hCG Quantitative
Synonym(s)	hCG, human chorionic gonadotrophin
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Lithium Heparin 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0 years	150 years	Female	0	5	IU/L	N/A	N/A

This test has only been validated for use in pregnancy

Test Orderable	Beta-hydroxybutyrate Level
Synonym(s)	BOHB, Ketone
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep 2y-150y: Li Heparin
Volume (recommended)	Microtainer: 0.5 mL Li Heparin: 1.0 mL
Special Handling Requirements	Transport to Lab urgently (<60 mins) <u>DO NOT CENTRIFUGE</u>
Routine Turnaround Time	1 hour
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Blood Ketones mmol/L	Classification	Critical Values
<0.6 mmol/L	<i>Normal</i>	
0.6 – 1.4 mmol/L	Mild ketonemia	
1.5 – 2.9 mmol/L	Moderate ketonemia	
≥3.0 mmol/L	<i>Severe ketonemia</i>	≥3.0 mmol/L

Test Orderable	Bile Acids Total
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST, alternate container: Micro Lithium heparin 2y-150y: SST, alternate container: Lithium heparin
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hrs
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

No reference range is available, but all results >10 µmol/L will be telephoned to the ordering physician.

Test Orderable	Bilirubin Total
Synonym(s)	TBIL
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	<2 days	Both	4	267	μmol/L		>179
2 days	<3 days	Both	4	267	μmol/L		>239
3 days	<5 days	Both	4	267	μmol/L		>299
5 days	<15 days	Both	4	267	μmol/L		>319
15 days	<150 years	Both	5	21	μmol/L		>319

Test Orderable	Biotinidase Level *EX* \$\$
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: SST
Volume (recommended)	1.0 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: 2-4 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Name	Body Fluid Crystal Analysis *EX*
Synonym(s)	Crystal Exam Body Fluid
Testing Status	Sendaway
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Fluid
Container(s)	0-150 years: Sterile Container
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Orderable	Bone Profile
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Panel includes the following analytes:

Total Calcium, Albumin, Adjusted Calcium, Phosphate, Alkaline Phosphatase.

Please refer to individual analytes for reference intervals.

Test Orderable	C1 Esterase Inhibitor *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Volume (recommended)	5 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Name	C3/C4 Complement
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Whole blood
Container(s)	0-2 years: Lithium heparin 2-150 years: SST
Volume (recommended)	0-2 years: 0.5 mL 2-150 years: 1 mL
Special Handling Requirements	
Routine Turnaround Time	3 days
Urgent Turnaround Time	
STAT Turnaround Time	
Clinical Information	

Reference Intervals C3							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0 days	<15 days	Both	0.57	1.16	g/L	N/A	N/A
15 days	<1 year	Both	0.58	1.49	g/L	N/A	N/A
1 year	<19 years	Both	0.85	1.42	g/L	N/A	N/A
19 years	150 years	Both	0.9	1.8	g/L	N/A	N/A

Reference Intervals C4							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0 days	<1 years	Both	0.05	0.33	g/L	N/A	N/A
1 years	<19 years	Both	0.12	0.41	g/L	N/A	N/A
19 years	150 years	Both	0.1	0.4	g/L	N/A	N/A

Test Orderable	CA 125
Synonym(s)	Cancer Antigen 125 (OV 125)
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	N/A

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Female	0	35	kU/L	N/A	N/A

This assay is performed using an immunoassay manufactured by Beckman Coulter, and results may not be comparable to those obtained from other manufacturer's methods.

Test Orderable	CA 15-3 *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: Li Heparin
Volume (recommended)	Microtainer: 0.5 mL Li Heparin: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 1 week
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

This assay is performed using an immunoassay manufactured by Roche Diagnostics, and results may not be comparable to those obtained from other manufacturer's methods.

Test Orderable	CA 19-9 *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 1 week
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

This assay is performed using an immunoassay manufactured by Roche Diagnostics, and results may not be comparable to those obtained from other manufacturer's methods.

Test Orderable	Calcitonin Level *EX* \$
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: SST
Volume (recommended)	1.0 mL
Special Handling Requirements	Transport to the Laboratory immediately following collection, on ice if available.
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Calcium Level 24 Hour Urine
Synonym(s)	24 Hour Urine Calcium Level, Urine 24 Hour Calcium Level
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: 24 Hr Urine Container
Volume (recommended)	24 Hr Urine volume
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	N/A

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	18 years	Both	0	0.1	mmol/kg/24 hrs		
19years	150 years	Both	2.50	7.50	mmol/24 hrs		

Note pediatric reference values are per kilogram of patient weight.

Test Orderable	Calcium Level Total
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	<1 year	Both	2.17	2.74	mmol/L	< 1.80	>2.99
1	<19 years	Both	2.32	2.64	mmol/L	< 1.80	>2.99
19 years	150 years	Both	2.23	2.58	mmol/L	< 1.80	>2.99

Test Orderable	Calcium Level Adjusted
Synonym(s)	Adjusted Calcium, Corrected Calcium
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2 y: Micro Li Hep Gel 2 y -150 y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	<4 weeks	Both	2.3	2.9	mmol/L	< 1.80	>2.99
4 weeks	<1 year	Both	2.3	2.8	mmol/L	< 1.80	>2.99
1 year	150 years	Both	2.2	2.6	mmol/L	< 1.80	>2.99

Test Orderable	Calcium Level Urine (Spot sample)
Synonym(s)	Urine Calcium Level
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
			N/A	N/A			

Test Orderable	Calcium Creatinine Ratio – Urine (spot sample)
Synonym(s)	Urine calcium:creatinine ratio, CCR
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	5 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	N/A

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	< 1 year	Both	0	1.49	mmol/mmol		
1 year	< 2 years	Both	0	1.24	mmol/mmol		
2 years	<5 years	Both	0	0.99	mmol/mmol		
5 years	<10 years	Both	0	0.69	mmol/mmol		
10 years	<18 years	Both	0	0.59	mmol/mmol		
18 years	150 years	Both	0	0.39	mmol/mmol		

Test Orderable	Cannabinoid Screen Urine *EX*
Synonym(s)	Urine Cannabinoid Screen
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 1 week
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Carbamazepine Level
Synonym(s)	Tegretol Lvl
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	1 hour

Target Range							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both	4	12	mg/L		>20

In routine monitoring, ideally collect the sample pre-dose.

Test Orderable	Carcinoembryonic Antigen *EX*
Synonym(s)	CEA
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 1 week
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

This assay is performed using an immunoassay manufactured by Roche Diagnostics, and results may not be comparable to those obtained from other manufacturer's methods.

Test Orderable	Catecholamines Fractionated *EX* \$
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Urine
Container(s)	0-2y: Spot Urine 24 hour Urine Collection
Volume (recommended)	
Special Handling Requirements	
Routine Turnaround Time	Sendaway: Up to 2 Weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Catecholamines Fractionated 24 Hour Urine *EX*
Synonym(s)	24 Hour Urine Catecholamines Fractionated, Urine 24 Hour Catecholamines Fractionated
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: 24 Hr Urine Container
Volume (recommended)	24 Hr Urine volume
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 1 week
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Catecholamines Fractionated Urine (Spot urine) *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 1 week
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Ceruloplasmin *EX*
Synonym(s)	Caeruloplasmin
Testing Location (if not Sidra)	Mayo HMC
Specimen Type(s)	Blood
Container(s)	0-150 years: SST
Volume (recommended)	2 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Chloride Level
Synonym(s)	Cl Lvl
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	<19 years	Both	95	108	mmol/L		
19 years	150 years	Both	95	108	mmol/L		

Test Orderable	Chloride Level 24 Hour Urine
Synonym(s)	24 Hour Urine Chloride Level, Cl Level 24 Hour Urine, Urine 24 Hour Chloride Level
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: 24 Hr Urine Container
Volume (recommended)	24 Hr Urine volume
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0 years	1 year	Both	2	10	mmol/24hrs		
>1 year	5 years	Both	15	40	mmol/24hrs		
>5 years	10 years	Both	20	110	mmol/24hrs		
>10 years	19 years	Both	35	175	mmol/24hrs		
>19 years	150 years	Both	110	250	mmol/24hrs		

Test Orderable	Chloride Level Urine
Synonym(s)	Cl Level Urine, Urine Chloride Level
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
NA							

Test Orderable	Cholesterol Total
Synonym(s)	Total Chol
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	< 15 days	Male	0.9	3.2	mmol/L		
0	< 15 days	Female	1.2	3.4	mmol/L		
15 days	< 1year	Both	1.7	6.7	mmol/L		
> 1 year	< 19 years	Both	3.1	5.9	mmol/L		

Note that adult reference values are not provided, as the results should form part of a cardiovascular risk assessment, which includes other risk factors.

Test Orderable	Citrate Level 24 Hour Urine *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: 24 Hr Urine Container
Volume (recommended)	24 Hr Urine volume
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Citrate Level Urine *EX* \$\$
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Clozapine Level *EX* \$\$\$
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Volume (recommended)	2mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Target level							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Cocaine Screen Urine *EX*
Synonym(s)	Urine Cocaine Screen
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 1 week
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

The comprehensive metabolic panel (CMP) was inactivated January 14, 2026. In order sets, the CMP has been replaced by the basic metabolic panel (BMP) and the liver function panel (LFT). Future orders can be placed as BMP, LFT, or individual tests.

Test Orderable	Conjugated Bilirubin
Synonym(s)	Direct Bilirubin, DBIL
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2 y: Micro Li Hep Gel 2 y-150 y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	< 15 days	Both	4	9	µmol/L		
15 d	< 1 year	Both	0	4	µmol/L		
1 year	< 9 years	Both	0	2	µmol/L		
9 years	< 13 years	Both	0	3	µmol/L		
13 years	< 19 years	Both	1	5	µmol/L		
19 years	150 years	Both	0	3	µmol/L		

Test Orderable	Copper Level
Synonym(s)	Cu level
Testing Location (if not Sidra)	
Specimen Type(s)	Serum
Container(s)	0-150 years: Trace Elements Serum tube (royal blue cap – Red line)
Volume (minimum)	0.5 mL
Special Handling Requirements	Samples received in any other container than the trace elements tube will be rejected.
Routine Turnaround Time	Up to 1 week
Urgent Turnaround Time	N/A
STAT Turnaround Time	N/A

Target Range							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	<3 months	Both	1.5	7.0	µmol/L	N/A	N/A
3 months	<6 months	Both	4.0	17.0	µmol/L	N/A	N/A
6 months	<1 year	Both	8.0	20.5	µmol/L	N/A	N/A
1 year	<6 years	Both	12.5	23.5	µmol/L	N/A	N/A
6 years	<10 years	Both	13.0	21.5	µmol/L	N/A	N/A
10 years	<14 years	Both	12.5	19.0	µmol/L	N/A	N/A
14 years	150 years	Both	13.0	26.0	µmol/L	N/A	N/A
Pregnancy			27.0	40.0	µmol/L	N/A	N/A

Paediatric reference ranges adapted from:

Lockitch G. Trace elements in Pediatrics. J Internat Fed Clin Chem 1996;9(2):46-8, 50-1.
 Heitland et al. J Trace Elements in Medicine and Biology v20 (2006) p253-262.

Pregnancy reference ranges adopted from:

SAS Trace Element Laboratories Handbook (Guildford, UK) 1998.

Test Orderable	Cortisol Free 24 Hour Urine *EX* \$
Synonym(s)	Urine Cortisol 24 Hour
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: 24 Hr Urine Container
Volume (recommended)	24 Hr Urine volume
Special Handling Requirements	Refrigerate during collection and send to the Laboratory within 24 hours.
Routine Turnaround Time	Sendaway: up to 1 week
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Cortisol Level
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0 months	<3 months	Both (Random)	31	519	nmol/L	N/A	N/A
3 months	<1 year	Both (Random)	73	634	nmol/L	N/A	N/A
1 year	<13 years	Both (Random)	60	353	nmol/L	N/A	N/A
13 years	<16 years	Both (Random)	84	472	nmol/L	N/A	N/A
16 years	<19 years	Both (Random)	104	535	nmol/L	N/A	N/A
19 years	150 years	Both (Random)	50	624	nmol/L	N/A	N/A
19 years	150 years	Both (AM)	185	624	nmol/L	N/A	N/A
19 years	150 years	Both (PM)	50	276	nmol/L	N/A	N/A

Cortisol AM sample: 185 - 624 nmol/L

Cortisol PM sample: 50 - 276 nmol/L

Test Orderable	C-Peptide
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	Urgent TAT: N/A
STAT Turnaround Time	STAT TAT: N/A

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	< 10 years	Both	83	1311	pmol/L		
10 years	< 15 years	Both	132	2711	pmol/L		
15 years	< 20 years	Male	181	1728	pmol/L		
15 years	< 20 years	Female	181	2269	pmol/L		
20 years	150 years	Both	230	1041	pmol/L		

Test Orderable	C-Reactive Protein
Synonym(s)	CRP
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both	0	<7.5	mg/L		

Test Orderable	Creatine Kinase
Synonym(s)	CK, CPK
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	<1 year	Both	-				>4999
1 year	<5 years	Male	45	302	IU/L		>4999
1 year	<5 years	Female	38	223	IU/L		>4999
5 years	<10 years	Male	60	293	IU/L		>4999
5 years	<10 years	Female	49	206	IU/L		>4999
10 years	<15 years	Male	42	278	IU/L		>4999
10 years	<15 years	Female	31	186	IU/L		>4999
15 years	150 years	Male		≤ 187	IU/L		>4999
15 years	150 years	Female		≤ 158	IU/L		>4999

Note that no reference intervals for children <1 year have been obtained for this assay.

Test Orderable	Creatinine 24 Hour Urine
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: 24 Hr Urine Container
Volume (recommended)	24 Hr Urine volume
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	<4 years	Male	0.09	0.18	mmol/kg/ 24hrs		
4	<6 years		0.10	0.20			
6 years	<9 years		0.12	0.22			
9 years	<14 years		0.11	0.25			
14 years	<19 years		0.12	0.29			
0	<4 years	Female	0.08	0.18			
4	<6 years		0.09	0.19			
6 years	<9 years		0.10	0.22			
9 years	<14 years		0.10	0.24			
14 years	<19 years		0.13	0.24			
19 years	150 years	Male	5	16	mmol/ 24hrs		
19 years	150 years	Female	9	18			

Note pediatric reference values are per kilogram of patient weight.

Test Orderable	Creatinine Level
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	< 14 days	Both	32	85	µmol/L		>199
15 days	< 2 years	Both	13	35	µmol/L		>199
2 years	< 5 years	Both	22	41	µmol/L		>199
5 years	< 12 years	Both	30	57	µmol/L		>199
12 years	< 15 years	Both	43	75	µmol/L		>199
15 years	< 19 years	Male	58	99	µmol/L		>199
15 years	< 19 years	Female	46	77	µmol/L		>199
19 years	< 150 years	Male	59	104	µmol/L		> 349
19 years	< 150 years	Female	45	85	µmol/L		> 349

Test Orderable	Creatinine Level Urine
Synonym(s)	Urine Creatinine
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
			None stated				

Test Orderable	CSF Glucose
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	CSF
Container(s)	Sterile Container
Volume (recommended)	0.5 mL
Special Handling Requirements	
Routine Turnaround Time	
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals CSF Glucose							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	<1 month	Both	1.9	5.5	mmol/L	<1.6	
1 month	<2 months	Both	1.7	5.1	mmol/L	<1.6	
2 months	<6 months	Both	1.9	4.9	mmol/L	<1.6	
6 months	<12 months	Both	2.4	4.3	mmol/L	<1.6	
1 year	<18 years	Both	2.5	4.2	mmol/L	<1.6	
18 years	150 years	Both	2.8	4.4	mmol/L	<1.6	

Note that all CSF glucose results are communicated.

Reference Intervals CSF : Plasma Glucose Ratio							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	<1 month	Both	0.42	1.1			
1 month	<2 months	Both	0.36	1.2			
2 months	<6 months	Both	0.39	1.1			
6 months	<12 months	Both	0.44	1.05			
1 year	<18 years	Both	0.45	0.85			
18 years	150 years	Both	0.46	0.88			

Test Orderable		Cyclosporine Level
Synonym(s)	Ciclosporine, Cyclosporin, CycA	
Testing Location (if not Sidra)		
Specimen Type(s)	Blood	
Container(s)	EDTA	
Volume (recommended)	0.5 mL	
Special Handling Requirements		
Routine Turnaround Time	48 – 72 Hours The assay is performed on Sundays, Tuesdays, and Thursdays. To ensure inclusion in the analytical run for a given day, specimens must be received in the laboratory no later than 11:00 AM. Results are released by 2:30 PM on the day of analysis	
Urgent Turnaround Time	Contact the On-call Biochemistry Consultant (via AMION). Approval and scheduling will also depend on staff availability.	
STAT Turnaround Time		

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
All ages male and female							>399
<p>Cyclosporine trough target range: 100 – 300 mcg/L Toxic effects have been recorded at concentrations of 400 mcg/L and above.</p> <p>The ranges above are provided as only a rough guideline. Target concentrations depend on the drug regimen used, the type of transplant, time post transplantation, and other clinical factors such as renal function, rejection status and are subject to interpretation.</p> <p>If monitoring blood levels of immunosuppressant drugs (tacrolimus, cyclosporine, sirolimus, everolimus), it is advisable to collect blood specimens immediately prior to administration of the next dose i.e. a trough level. However, if analysis is indicated due to suspected toxicity, the sample may be collected at any time.</p> <p>Sample analyzed using Tandem Mass Spectrometry (LC-MS/MS)</p>							

Test Orderable	Cystatin C *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Volume (recommended)	2 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Cystine 24 Hour Urine *EX* \$
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container (24 hour urine container)
Volume (recommended)	24 Hr Urine volume
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 1 week
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Cystine Urine *EX* \$
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 1 week
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Dehydroepiandrosterone Sulphate
Synonym(s)	DHEAS
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Day 0	<15 days	Both	3.3	N/A	µmol/L		
Day 15	<6 months	Both	0.1	8.7	µmol/L		
6 months	<1 year	Both	0.1	1.2	µmol/L		
1 year	<6 years	Both	0.1	1	µmol/L		
6 years	<9 years	Both	0.1	2.6	µmol/L		
9 years	<13 years	Both	0.4	5.6	µmol/L		
13 years	<16 years	Female	1	9.1	µmol/L		
13 years	<16 years	Male	1.8	11.3	µmol/L		
16 years	<19 years	Female	2	16.1	µmol/L		
16 years	<19 years	Male	3.1	16.6	µmol/L		
19 years	<21 years	Female	1.4	8.7	µmol/L		
16 years	<21 years	Male	0.7	14.6	µmol/L		
21 years	<31 years	Female	0.5	10.6	µmol/L		
21 years	<31 years	Male	2.3	18.7	µmol/L		
31 years	<41 years	Female	0.6	7.2	µmol/L		
31 years	<41 years	Male	2.9	12.6	µmol/L		
41 years	<51 years	Female	0.5	6.3	µmol/L		
41 years	<51 years	Male	1.9	13.4	µmol/L		
51 years	<61 years	Female	0.2	5.1	µmol/L		
51 years	<61 years	Male	1	8.5	µmol/L		
61 years	<71 years	Female	0.3	3.6	µmol/L		
61 years	<71 years	Male	0.7	6.6	µmol/L		
71 years	150 years	Female	0.2	4.8	µmol/L		

71 years	150 years	Male	0.1	6.9	$\mu\text{mol/L}$		
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Test Orderable	Digoxin Level *EX*
Synonym(s)	Dig Level
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 1 week
Urgent Turnaround Time	
STAT Turnaround Time	

Target level							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Dihydrotestosterone *EX* \$
Synonym(s)	DHT
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: 2-4 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	eGFR (Schwartz Paed)
Synonym(s)	Estimated glomerular filtration rate
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	16 years						

eGFR (Schwartz Paed) estimates the eGFR using the bedside Schwartz equation of 2009.

$eGFR \text{ mL/min} = 0.41 \times (\text{Height in cm}) \times 88.4 / \text{Serum Creatinine in } \mu\text{mol/L}$

$eGFR \text{ mL/min} = 36.2 \times (\text{Height in cm}) / \text{Serum Creatinine } \mu\text{mol/L}$

J Am Soc Nephrol 2009; 20: 629.

Applicable to children under 18 years of age (refer to eGFR CKD-Epi for adults aged 18 years and older).

Test Orderable	eGFR (CKD_Epi)
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

eGFR_{cr} is calculated using the 2009 CKD-EPI eGFR_{cr} equations with race coefficients equal to zero and using an IDMS-traceable serum creatinine method.

eGFR (CKD-Epi) is automatically included with orders that contain creatinine for patients aged 18 years and older.

Test Orderable	Electrolytes and Renal Profile
Synonym(s)	Lytes, Urea and Electrolytes
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Panel includes the following analytes:

Sodium, Chloride, Potassium, Total CO₂, Urea, Creatinine, eGFR (if appropriate),

Please refer to individual analytes for reference intervals.

Test Orderable	Estradiol Level (Sensitive)
Synonym(s)	Oestradiol, High Sensitivity Estradiol
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	2 hours

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0 year	<1 year	Both	0	140	pmol/L		
1 year	<12 years	Female	0	59	pmol/L		
1 year	<12 years	Male	0	55	pmol/L		
12 years	<19 years	Female	0	720	pmol/L		
12 years	<19 years	Male	0	128	pmol/L		
19 years	150 years	Female	92	422	pmol/L		
19 years	150 years	Male	0	116	pmol/L		

The estradiol reference interval for females 12 to <19 years also includes ovulating women, at all stages of the menstrual cycle.

The estradiol reference interval for females > 19 years applies to the mid-follicular phase only.

Please note: The estradiol assay is susceptible to interference from some synthetic estrogen medications, the direction (falsely high or low) or extent of which is not easy to predict. As with all laboratory assays, if the result obtained does not fit the clinical picture, please contact the on-call Biochemist (via AMION) at the very earliest opportunity

Test Orderable	Ethanol Level
Synonym(s)	Alcohol Level, Alcohol Lvl, EtOH Level
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-150 years: Fluoride Oxalate
Volume (recommended)	1 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
					mg/L		>2500

Take special note of the reporting units

Test Orderable	Ethosuximide *EX* \$
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: SST
Volume (recommended)	1.0 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Fatty Acid Profile *EX* \$\$
Synonym(s)	Free Fatty Acids, FFA
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Volume (recommended)	1.0 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: 2-4 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Fecal alpha-1-antitrypsin *EX* \$
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Stool
Container(s)	0-150 years: Sterile Container
Volume (recommended)	1.0 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Fecal Chymotrypsin *EX* \$\$
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Stool
Container(s)	0-150 years: Sterile Container
Volume (recommended)	1.0 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: 2-4 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Fecal Elastase *EX*
Synonym(s)	Faecal Elastase, Stool Elastase
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Stool
Container(s)	0-150 years: Sterile Container
Volume (recommended)	1.0 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Fecal Fat Quantitative *EX*
Synonym(s)	Faecal Fat Quantitative
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Stool
Container(s)	0-150 years: Sterile Container
Volume (recommended)	1.0 mL
Special Handling Requirements	
Routine Turnaround Time	2 Weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Ferritin Level
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	2 hours

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0 days	<15 days	Both	40	540	ug/L	N/A	N/A
15 days	<6 months	Both	15	375	ug/L	N/A	N/A
6 months	<1 years	Both	13	192	ug/L	N/A	N/A
1 years	<5 years	Both	12	56	ug/L	N/A	N/A
5 years	<16 years	Both	15	56	ug/L	N/A	N/A
16 years	<19 years	Female	15	75	ug/L	N/A	N/A
16 years	<19 years	Male	19	102	ug/L	N/A	N/A
19 years	150 years	Female	15	307	ug/L	N/A	N/A
19 years	150 years	Male	24	336	ug/L	N/A	N/A

Test Orderable	Folate Level
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	2 hours

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0 year	150 years	Both	See comment		nmol/L		

Folate deficiency is associated with a serum concentration <6.8 nmol/L. Between 6.8 and 10nmol/L is an indeterminate range.

Test Orderable	Free Androgen Index
Synonym(s)	FAI, Free Testosterone
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	N/A
STAT Turnaround Time	N/A

Panel includes the following analytes:

Testosterone and sex hormone binding globulin (SHBG), from which the index will be calculated using the following formula:

$$\text{FAI} = \text{Testosterone} / \text{SHBG} \times 100$$

Please refer to individual analytes for specific reference ranges, but for FAI see the following:

Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	<1 year	Both	0	6.6	%		
1 year	<12 years	Both	0	1.2	%		
12 years	<15 years	Male	0.6	47.0	%		
15 years	<19 years	Male	7.8	81.2	%		
19 years	<50 years	Male	24.3	110.2	%		
50 years	150 years	Male	None available				
12 years	<15 years	Female	0.5	7.0	%		
15 years	<19 years	Female	1.3	11.5	%		
19 years	<47 years	Female	0.7	10.9	%		
47 years	<92 years	Female	0.2	6.8	%		
92 years	150 years	Female	None available		%		

Test Orderable	Free T3
Synonym(s)	Free Triiodothyronine, FT3
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	2 hours

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0 years	1 year	Both	4.3	6.9	pmol/L		
1 year	15 years	Both	4.0	6.2	pmol/L		
15 years	19 years	Female	3.5	5.3	pmol/L		
15 years	19 years	Male	3.8	5.7	pmol/L		
19 years	150 years	Both	3.8	6.0	pmol/L		

Test Orderable	Free T4
Synonym(s)	Free Thyroxine, FT4
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	2 hours

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Day 0 (Birth Day)	<Day 7 (1 Week)	Both	12.1	56.5	pmol/L		
Day 7 (1 Week)	<1 Month	Both	12.1	52.5	pmol/L	N/A	N/A
1 Month	<3 years	Both	9.5	17.8	pmol/L	N/A	N/A
3 years	<19 years	Both	8.1	14.9	pmol/L	N/A	N/A
19 years	150 years	Both	8.4	19.1	pmol/L	N/A	N/A

Pregnancy Related Reference Intervals					
Trimester	Lower Limit	Upper Limit	Units	Critical Low	Critical High
1 st Trimester	6.7	14.1	pmol/L		
2 nd Trimester	5.8	12.7	pmol/L		
3 rd Trimester	6.1	12.2	pmol/L		

Test Orderable	Fructosamine *EX*
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: SST
Volume (recommended)	2 mL
Special Handling Requirements	Separate serum within 2 hours of collection.
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	FSH Level
Synonym(s)	Follicle Stimulating Hormone Level, Follitropin
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	2 hours

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0 year	<1 year	Female	0.2	15.7	IU/L		
0 year	<1 year	Male	0.1	4.0	IU/L		
1 year	<9 years	Female	0.6	6.4	IU/L		
1 year	<9 years	Male	0.2	2.3	IU/L		
9 years	<12 years	Female	0.9	7.8	IU/L		
9 years	<12 years	Male	0.6	5.0	IU/L		
12 years	<19 years	Female	0.6	10.2	IU/L		
12 years	<19 years	Male	1.3	7.4	IU/L		
19 years	150 years	Male	1.3	19.3	IU/L		
19 years	150 years	Female	3.85	8.78	IU/L		

FSH reference interval for females >19 years applies to the mid-follicular phase only.

Test Orderable	Gamma Glutamyl Transferase
Synonym(s)	GGT, GammaGT
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	<15 days	Both	20	195	IU/L		
15 days	<1 year	Both	7	113	IU/L		
1 year	<11 years	Both	5	14	IU/L		
11 years	<19 years	Both	6	18	IU/L		
19 years	< 150 years	Male		<55	IU/L		
19 years	< 150 years	Female		<38			

Test Orderable	Gastrin Level *EX* \$\$
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: SST
Volume (recommended)	2 mL
Special Handling Requirements	Ideally fasting
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Gentamicin Level (Once Daily Dosing Pre-dose)
Synonym(s)	Gentamycin Lvl Once Daily Pre
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Target level							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both		1	mg/L		> 1

Sample to be collected pre-dose (trough sample).

- Children's and Adult Antibiotic Guidelines: [Sidra Portal - Clinical Guidelines](#)
- [Lexicomp](#)

Test Orderable	Gentamicin Level Peak
Synonym(s)	Garamycin Lvl Peak
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Target level							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both	5	10	mg/L		> 10

Measurement of peak concentrations is not routinely recommended. If necessary this is taken 1 hour post-dose.

- Children's and Adult Antibiotic Guidelines: [Sidra Portal - Clinical Guidelines](#)
- [Lexicomp](#)

Test Orderable	Gentamicin Level Trough
Synonym(s)	Garamycin Lvl Trough
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Target level							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both	0.6	2	mg/L		> 2

Sample to be taken pre-dose

- Children's and Adult Antibiotic Guidelines: [Sidra Portal - Clinical Guidelines](#)
- [Lexicomp](#)

Test Orderable	Gentamicin Level Random
Synonym(s)	Gentamycin Lvl
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Target level							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both			mg/L		

Test Orderable	Glucose Fasting
Synonym(s)	Fasting Glucose
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Fluoride 2y-150y: Fluoride Oxalate
Volume (recommended)	Microtainer: 0.5 mL Fluoride Oxalate: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	<6 months	Both	3.9	6.0	mmol/L	2.6	14.9
6 months	<16 years	Both	3.9	6.0	mmol/L	2.6	14.9
16 years	150 years	Both	3.9	6.0	mmol/L	2.6	19.9

Test Orderable	Glucose Random
Synonym(s)	Random Glucose
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Fluoride 2y-150y: Fluoride Oxalate
Volume (recommended)	Microtainer: 0.5 mL Fluoride Oxalate: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	<16 years	Both			mmol/L	2.6	19.9
16 years	150 years	Both			mmol/L	2.6	19.9

Test Orderable	Growth Hormone Level
Synonym(s)	GH, somatotrophin
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	Send to lab within one hour
Routine Turnaround Time	4 hours
Urgent Turnaround Time	Urgent TAT: N/A
STAT Turnaround Time	STAT TAT: N/A

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0 year	<3 months	Both	0.8	33.54	µg/L		
3 months	<2 years	Both	0.14	6.27	µg/L		
2 years	<7 years	Both	0.05	5.11	µg/L		
7 years	<12 years	Both	0.02	4.76	µg/L		
12 years	<14 years	Both	0.01	6.2	µg/L		
14 years	<19 years	Female	0.03	5.22	µg/L		
14 years	<19 years	Male	0.02	3.81	µg/L		
19 years	150 years	Female	0.01	3.61	µg/L		
19 years	150 years	Male	0.01	0.97	µg/L		

Test Orderable	Haptoglobin *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Blood
Container(s)	0-150 years: SST
Volume (recommended)	2 mL
Special Handling Requirements	HMC
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Hemoglobin A1c
Synonym(s)	Glycated Hemoglobin, HbA1c, HgbA1C
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: MAP / Microtainer EDTA 2y-150y: EDTA
Volume (recommended)	Microtainer: 0.5 mL EDTA: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	72 hours
Urgent Turnaround Time	N/A
STAT Turnaround Time	N/A

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High

None provided, as different thresholds are used for diagnosis and monitoring purposes.

HbA1c values >13% (120mmol/mol), in the absence of a documented diagnosis of diabetes mellitus or previous results, will be telephoned to the clinical area / ordering Physician.

Test Orderable	Homocysteine Total
Synonym(s)	HCTX
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: MAP / Microtainer EDTA 2y-150y: EDTA
Volume (recommended)	Microtainer: 0.4 mL EDTA: 2.0 mL
Special Handling Requirements	Send to the laboratory immediately post vene-puncture, on ice if available.
Routine Turnaround Time	3 hours
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	<70 years	Both	3	15	μmol/L	N/A	N/A
70 years	150 years	Both	3	20	μmol/L	N/A	N/A

Test Orderable	Homovanillic Acid 24 Hour Urine *EX*
Synonym(s)	HVA
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: 24 Hr Urine Container
Volume (recommended)	24 Hr Urine volume
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Homovanillic Acid Urine *EX*
Synonym(s)	HVA
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	IGF Binding Protein-3 *EX* \$
Synonym(s)	Insulin Like Growth Factor Binding Protein 3
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	Send to lab within one hour of collection
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Name	Immunoglobulins Total	
Synonym(s)	IgA, IgG, IgM	
Testing Location (if not Sidra)		
Routine TAT	3 days	
Urgent TAT	8 hours	
STAT TAT	N/A	
Specimen Type(s)	Whole blood	
Container(s)	0-2 years: Lithium heparin	2-150 years: SST
Collection minimum volume	0-2 years: 0.5 mL	2-150 years: 1 mL
Special Handling		
Clinical Information		

Reference Intervals IgA							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0 days	<1 year	Both	0.01	0.3	g/L		
1 year	<3 years	Both	0.01	0.9	g/L		
3 years	<6 years	Both	0.3	1.5	g/L		
6 years	<14 years	Both	0.5	2.3	g/L		
14 years	<19 years	Both	0.5	3	g/L		
19 years	150 years	Both	0.7	4	g/L		

Reference Intervals IgG							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Day 0	<15 days	Both	3	13	g/L		
15 days	<1 year	Both	1.1	6.5	g/L		
1 year	<4 years	Both	3	10	g/L		
4 years	<10 years	Both	5.1	12.6	g/L		
10 years	<19 years	Both	6.2	14.2	g/L		
19 years	150 years	Both	7	16	g/L		

Reference Intervals IgM							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Day 0	<15 days	Both	0.2	0.4	g/L		
15 days	<13 weeks	Both	0.2	0.7	g/L		
13 weeks	<1 year	Both	0.3	0.9	g/L		
1 year	<19 years	Female	0.5	1.7	g/L		
1 year	<19 years	Male	0.4	1.3	g/L		
19 years	150 years	Both	0.4	2.3	g/L		

Test Orderable	Insulin Level
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	Send to lab within one hour
Routine Turnaround Time	4 Hours
Urgent Turnaround Time	2 Hours
STAT Turnaround Time	2 Hours

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	<2 years	Both	6	216	pmol/L		
2 years	<10 years	Both	11	220	pmol/L		
10 years	<19 years	Both	20	571	pmol/L		
19 years	150 years	Both	13	161	pmol/L		

Test Orderable	Iron Total
Synonym(s)	Iron Level
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0 years	< 14 years	Both	2.9	23.1	µmol/L		
14 years	< 19 years	Male	6.2	30.3	µmol/L		
14 years	< 19 years	Female	3.6	29.3	µmol/L		
19 years	150 years	Male	12.5	32.2	µmol/L	µmol/L	
19 years	150 years	Female	10.7	32.2	µmol/L		

Test Orderable	Iron Profile
Synonym(s)	Iron Fe, Transferrin
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	1 hour

Reference Intervals - Iron							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0 years	< 14 years	Both	3.1	23.1	µmol/L		
14 years	< 19 years	Male	5.8	30.2	µmol/L		
14 years	< 19 years	Female	3.8	29.2	µmol/L		
19 years	150 years	Male	8.1	32.6	µmol/L		
19 years	150 years	Female	5	30.4	µmol/L		

Reference Intervals - Transferrin							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	< 9 weeks	Both	1.12	2.3	g/L		
9 weeks	< 1 year	Both	1.15	3.28	g/L		
1 year	< 19 years	Both	2.26	3.41	g/L		
19 years	150 years	Male	1.8	3.3	g/L		
19 years	150 years	Female	1.9	3.8	g/L		

Test Orderable	Kappa Lambda, Free Light Chains Blood *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Kappa Lambda, Free Light Chains Urine *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Kidney Stone Analysis *EX*
Synonym(s)	
Testing Location (if not Sidra)	Mayo HMC
Specimen Type(s)	Stone
Container(s)	0-150 years: Sterile Container
Volume (recommended)	
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Lactate Dehydrogenase
Synonym(s)	LDH
Testing Location (if not Sidra)	
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Specimen Type(s)	Blood
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
	< 15 days	Both	321	1264	IU/L		
15 d	< 1 year	Both	170	468	IU/L		
1 year	< 10 years	Both	200	333	IU/L		
10 years	< 15 years	Male	177	294	IU/L		
10 years	< 15 years	Female	163	282	IU/L		
15 years	< 19 years	Both	136	260	IU/L		
19 years	150 years	Both	0	<310	IU/L		

Test Orderable	Lactate Dehydrogenase Body Fluid
Synonym(s)	Body Fluid Lactate Dehydrogenase, LDH Body Fluid
Testing Location (if not Sidra)	
Specimen Type(s)	Ascites Fluid, Pancreatic Fluid, Pleural Fluid, Peritoneal Fluid, Pericardial Fluid, Other (Enter as Order Comment), Bile Fluid, Bronchial Lavage Upper Lobe, Bronchial Lavage Lower Lobe, JP Abdomen Fluid, Peritoneal Dialysis Fluid, Synovial Fluid Right Side, Synovial Fluid Left Side, Thoracentesis Fluid, Wound Drain
Container(s)	0-150 years: Sterile Container
Volume (recommended)	1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
N/A							

Test Orderable	LACTATE CSF
Synonym(s)	CSF Lactate
Testing Location (if not Sidra)	
Specimen Type(s)	CSF
Container(s)	Sterile container
Volume (recommended)	1.0 mL
Special Handling Requirements	
Routine Turnaround Time	
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	<1 month	Both	0.9	2.5	mmol/L		
1 month	<18 years	Both	1.1	2.1	mmol/L		
18 years	150 years	Both	1.2	2.2	mmol/L		

Test Orderable	Lactic Acid Level
Synonym(s)	Lactate Level
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-150 years: Fluoride Oxalate
Volume (recommended)	2.0 mL
Special Handling Requirements	Send to lab immediately
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both	0.5	2.2	mmol/L		> 4.0

Test Orderable	Lead Level *EX*
Synonym(s)	Pb Level
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Blood
Container(s)	0-150 years: Trace Element EDTA tube (Navy Blue top – Purple line)
Volume (recommended)	6mL
Special Handling Requirements	HMC
Routine Turnaround Time	Sendaway: up to 1 week
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Lipase Level
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hrs
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	<1 year	Both	0	8	IU/L		40
1 year	9 years	Both	5	31	IU/L		155
10 years	19 years	Both	7	39	IU/L		195
19 years	150 years	Both		<67	IU/L		330

Test Orderable	Lipid Profile - Pediatric
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	Fasting is not required, but it is permitted.
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	N/A

Panel includes the following analytes: Total Cholesterol, Triglycerides, HDL Cholesterol, LDL Cholesterol,, Non-HDL Cholesterol

For specific reference ranges, please consult the individual analyte information for Total Cholesterol and Triglycerides. Reference values for the remaining parameters are not provided, as results should be interpreted using clinical decision thresholds within cardiovascular risk assessment that incorporate risk factors and lipid levels.

LDL-cholesterol levels are calculated using the Martin-Hopkins equation.

Test Orderable	Lipid Profile- Adult
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	SST
Volume (recommended)	SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	N/A

Panel includes the following analytes: Total Cholesterol, Triglycerides, HDL Cholesterol, LDL Cholesterol, Cholesterol:HDL ratio, Non-HDL Cholesterol

For specific reference ranges, please consult the individual analyte information for Total Cholesterol and Triglycerides. Reference values for the remaining parameters are not provided, as results should be interpreted using clinical decision thresholds within cardiovascular risk assessment that incorporate risk factors and lipid levels.

LDL-cholesterol levels are calculated using the Martin-Hopkins equation.

Test Orderable	Lithium Level *EX*
Synonym(s)	Li Lvl
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Blood
Container(s)	SST Alternative Container : Plain Red Tube
Volume (recommended)	SST: 4.0 mL Red tube: 4.0mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway : up to 2 working days
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Liver Function Profile
Synonym(s)	LFT
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Panel includes the following analytes:

Total Protein, Albumin, Total Bilirubin, AST, ALT, ALP, GGT

Please refer to individual analytes for reference ranges.

Test Orderable	Luteinizing Hormone
Synonym(s)	LH
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	N/A

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0 year	<1 year	Female	0.0	3.3	IU/L		
0 year	<1 year	Male	0.1	6.8	IU/L		
1 year	<5 years	Both	0.0	2.1	IU/L		
5 years	<10 years	Both	0.0	1.7	IU/L		
10 years	<14 years	Female	0.0	8.1	IU/L		
10 years	<14 years	Male	0.0	3.3	IU/L		
14 years	<19 years	Female	1.6	19.0	IU/L		
14 years	<19 years	Male	0.8	9.0	IU/L		
19 years	150 years	Male	1.2	8.6	IU/L		
19 years	150 years	Female	2.1	10.9	IU/L		

LH reference interval for females > 19 years applies to mid-follicular phase only.

Test Orderable	Lysosomal and Peroxisomal Storage Disorders Screen *EX*\$\$
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood Spot
Container(s)	0-150 years: Bloodspot Card
Volume (recommended)	N/A
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Magnesium Level
Synonym(s)	Mg Level
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	< 15 days	Both	0.79	1.56	mmol/L	< 0.5	>2.0
15 days	< 1 year	Both	0.78	1.22	mmol/L	< 0.5	>3.0
1 year	< 19 years	Both	0.83	1.13	mmol/L	< 0.5	>3.0
19 years	< 150 years	Male	0.73	1.06	mmol/L	< 0.5	>3.0
19 years	< 150 years	Female	0.77	1.03	mmol/L	< 0.5	>3.0

Test Orderable	Magnesium Level Urine (spot sample)
Synonym(s)	Urine Mg Level
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	5 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	1 hour

Test Orderable	Manganese Level *EX* \$\$
Synonym(s)	Mn
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: Trace element tube (metal free (no additive) or metal free (EDTA)).
Volume (recommended)	2 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	Mayo
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Metanephrines *EX* \$
Synonym(s)	Plasma Metanephrines
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-2y: Map EDTA 2y-150y: EDTA
Volume (recommended)	Microtainer: 0.5 mL EDTA: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Metanephrines 24 Hour Urine *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: 24 Hr Urine Container
Volume (recommended)	24 Hr Urine volume
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Metanephrines Urine (Spot sample) *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Methemoglobin *EX*
Synonym(s)	Methaemoglobin
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Blood
Container(s)	0-1/2y: Map EDTA 1/2y-150y: EDTA
Volume (recommended)	Microtainer: 0.5 mL EDTA: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 1 week
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Methotrexate level
Synonym(s)	MTX
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hour
STAT Turnaround Time	2 hour

Target Range							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High

Click on the link provided below to access the protocol on Sidra’s Internal Portal. For external customers, please be in contact with the Pathology Department for assistance in regards to this Guideline.

- [Sidra Portal - Clinical Guidelines](#)
- [Lexicomp](#)
- [Portal Oncology Link](#)

Test Orderable	Miscellaneous Body Fluid
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Ascites Fluid, Pancreatic Fluid, Pleural Fluid, Peritoneal Fluid, Pericardial Fluid, Other (Enter as Order Comment), Bile Fluid, Bronchial Lavage Upper Lobe, Bronchial Lavage Lower Lobe, JP Abdomen Fluid, Peritoneal Dialysis Fluid, Synovial Fluid Right Side, Synovial Fluid Left Side, Thoracentesis Fluid, Wound Drain
Container(s)	0-150 years: Sterile Container
Volume (recommended)	1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
			N/A				

Test Orderable	Mycophenolic Acid Level *EX*
Synonym(s)	MPA
Testing Location (if not Sidra)	Mayo HMC
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Volume (recommended)	1.0 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Myoglobin *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Volume (recommended)	3 mL
Special Handling Requirements	HMC
Routine Turnaround Time	Sendaway: up to 1 week
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Neonatal Screening Test Screen*EX*
Synonym(s)	Newborn Screen (NBS)
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Whole blood dried on filter paper
Container(s)	Whatman 903 filter paper
Volume (recommended)	Collect the required number of uniform blood spots: Five(5) circles on the first card and one (1) on the second card
Special Handling Requirements	Blood spot collection should be completed between 24 hours and 72 hours after birth.
Routine Turnaround Time	Sendaway: up to 3 days
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	NT-pro B-type Natriuretic Peptide *EX*
Synonym(s)	NT-proBNP, BNP
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Blood
Container(s)	0-150 years: SST
Volume (recommended)	2 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 1 week
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Opiate Screen Urine *EX*
Synonym(s)	Urine Opiate Screen
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 1 week
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Organic Acids Urine *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Osmolality Serum
Synonym(s)	Serum Osmolality
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	8 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both	275	300	mOsm/kg H ₂ O		

Test Orderable	Osmolality Urine
Synonym(s)	Urine Osmolality
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	8 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both	50	1400	mOsm/kg H ₂ O		

Test Orderable	Osteocalcin *EX* \$\$
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Volume (recommended)	2 mL
Special Handling Requirements	Patient requires to be fasting
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Oxalate 24 Hour Urine *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: 24 Hr Urine Container
Volume (recommended)	24 Hr Urine volume
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Oxalate Urine (Spot sample) *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Pancreatic Polypeptide *EX* \$\$
Synonym(s)	PP
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: ECZ EDTA
Volume (recommended)	3 mL
Special Handling Requirements	Patient must be fasted (12 hours). Send to the laboratory immediately following venepuncture, on ice if available.
Routine Turnaround Time	Sendaway: up to 4 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Parathyroid hormone Intact
Synonym(s)	PTH, Intact PTH
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	N/A

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0 year	<1 year	Both	0.8	6.1	pmol/L		
1 year	<8 years	Both	1.3	5.8	pmol/L		
8 years	<19 years	Both	1.3	7.5	pmol/L		
19 years	150 years	Both	1.3	9.3	pmol/L		

Test Orderable	Phenobarbital Level
Synonym(s)	Phenobarbitone, Luminal
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Plain 2y-150y: Plain
Volume (recommended)	0-2y: Micro Li Hep Gel 2y-150y: SST
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Target level							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both	10	40	mg/L		>60

For routine monitoring, a pre-dose (trough) level is recommended.

Test Orderable	Phenytoin Level
Synonym(s)	Dilantin Level
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Target level							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both	5	20	mg/L		>24

In routine monitoring, a pre-dose (trough) level up to 1 hour before is preferred.

Test Orderable	Phosphate Level
Synonym(s)	PO4 Level
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	< 15 days	Both	1.87	3.74	mmol/L	<0.7	>4.0
15 days	< 1 year	Both	1.52	2.92	mmol/L	<0.7	>4.0
1 year	< 5 years	Both	1.40	2.33	mmol/L	<0.7	>4.0
5 years	< 13 years	Both	1.28	1.98	mmol/L	<0.7	>4.0
13 years	< 16 years	Both	0.93	1.87	mmol/L	<0.7	>4.0
16 years	< 19 years	Both	0.93	1.63	mmol/L	<0.7	>4.0
19 years	150 years	Both	0.81	1.45	mmol/L	<0.7	>4.0

Test Orderable	Phosphate Level 24 Hour Urine
Synonym(s)	24 Hour Urine Phosphate Level, Urine 24 Hour Phosphate Level
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: 24 Hr Urine Container
Volume (recommended)	24 Hr Urine volume
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Age From	Age To	Sex	Lower Limit	Upper Limit	Units
0	<2 years	Male			mmol/kg/24hrs
2	<7 years	Male	0.3	1.0	mmol/kg/24hrs
7	<11 years	Male	0.25	0.9	mmol/kg/24hrs
11	<15 years	Male	0.2	0.8	mmol/kg/24hrs
15	<19 years	Male	0.15	0.7	mmol/kg/24hrs
0	<2 years	Female			mmol/kg/24hrs
2	<7 years	Female	0.3	1.1	mmol/kg/24hrs
7	<11 years	Female	0.25	1.0	mmol/kg/24hrs
11	<15 years	Female	0.2	0.7	mmol/kg/24hrs
15	<19 years	Female	0.15	0.55	mmol/kg/24hrs
19 years	150 years	Both	15	50	mmol/24 hrs

Test Orderable	Phosphate Level Urine
Synonym(s)	Urine Phosphate Level
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High

No reference interval quoted.

Test Orderable	Porphobilinogen Qualitative Urine *EX*
Synonym(s)	PBG
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Porphobilinogen Quantitative Urine *EX*
Synonym(s)	PBG
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Porphyrins Fecal *EX*
Synonym(s)	Faecal Porphyrins, Porphyrins Stool
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Stool
Container(s)	0-150 years: Sterile Container
Volume (recommended)	2 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Porphyrins Urine *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Potassium Level
Synonym(s)	K Level
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	< 3 months	Both	3.3	6.5	mmol/L	<2.6	>6.4
3 months	< 1 year	Both	3.3	6.0	mmol/L	<2.6	>6.4
1 year	< 19 years	Both	3.5	5.2	mmol/L	<2.6	>6.4
19 years	150 years	Both	3.5	5.3	mmol/L	<2.6	>6.4

Test Orderable	Potassium Level 24 Hour Urine
Synonym(s)	24 Hour Urine Potassium Level, K Level 24 Hour Urine, Urine 24 Hour Potassium Level
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: 24 Hr Urine Container
Volume (recommended)	24 Hr Urine volume
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	18 years	Both	0	3	mmol/kg/ 24hrs		
19 years	150 years	Both	25	125	mmol/24 hrs		

Note pediatric reference values are per kilogram of patient weight.

Test Orderable	Potassium Level Urine (Spot sample)
Synonym(s)	K Level Urine, Urine Potassium Level
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High

No reference interval quoted.

Test Orderable	Plasma Free Hemoglobin
Synonym(s)	Plasma Free Haemoglobin
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-150 years: Microtainer EDTA
Volume (recommended)	0.1 mL
Special Handling Requirements	
Routine Turnaround Time	3 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150	All	See Interpretative comment below		g/L		0.1

For patients on ECMO, hemolysis decision points are as follows:

Moderate	plasma free Hb 0.05-0.1 g/L
Critical	plasma free Hb 0.1-0.5 g/L
Emergency	plasma free Hb >0.5 g/L

Test Orderable	Prealbumin *EX* \$
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Volume (recommended)	2 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Progesterone Level
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	N/A

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
4 days	<1 year	Female	0.9	27.6	nmol/L		
4 days	<1 year	Male	0.6	19.2	nmol/L		
1 year	<9 years	Both	0.1	2.7	nmol/L		
9 years	<13 years	Both	0.2	4.5	nmol/L		
13 years	<19 years	Female	0.8	38.5	nmol/L		
13 years	<19 years	Male	0.6	5.2	nmol/L		
19 years	150 years	Male	0.4	6.6	nmol/L		
19 years	150 years	Female	1.0	4.8	nmol/L		

Progesterone reference interval for females 13 to 18 years, derived from sampling throughout the menstrual cycle.

Progesterone reference interval for females > 19 years applies to mid-follicular phase only.

Test Orderable	Prolactin Level
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0 days	<30 days	Both	1080	>4240	mIU/L		
30 days	<1 year	Both	85	1500	mIU/L		
1 year	<19 years	Both	70	390	mIU/L		
19 years	150 years	Male	55	280	mIU/L		
19 years	150 years	Female	See below				

For female adults >19 years:

Pre-menopausal: 70 - 570 mIU/L

Peri- or post-menopausal: 6 - 420 mIU/L

Test Orderable	Prostate Specific Antigen
Synonym(s)	PSA
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-150 years: SST
Volume (recommended)	3.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	Urgent TAT: 2 h
STAT Turnaround Time	STAT TAT: N/A

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Male	0.0	4.0	µg/L		

This assay is performed using an immunoassay manufactured by Beckman Coulter, and results may not be comparable to those obtained from other manufacturer's methods.

Test Orderable	Protein 24 Hour Urine
Synonym(s)	Urine 24 Hour Protein
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: 24 Hr Urine Container
Volume (recommended)	24 Hr Urine volume
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	N/A

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both	0	100	mg/24hrs		

Test Orderable	Protein Body Fluid
Synonym(s)	Body Fluid Protein
Testing Location (if not Sidra)	
Specimen Type(s)	Ascites Fluid, Pancreatic Fluid, Pleural Fluid, Peritoneal Fluid, Pericardial Fluid, Other (Enter as Order Comment), Bile Fluid, Bronchial Lavage Upper Lobe, Bronchial Lavage Lower Lobe, JP Abdomen Fluid, Peritoneal Dialysis Fluid, Synovial Fluid Right Side, Synovial Fluid Left Side, Thoracentesis Fluid, Wound Drain
Container(s)	0-150 years: Sterile Container
Volume (recommended)	1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 Hours
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
			N/A				

Test Orderable	Protein CSF
Synonym(s)	CSF Protein
Testing Location (if not Sidra)	
Specimen Type(s)	CSF
Container(s)	0-150 years: CSF Tube
Volume (recommended)	1.0 mL
Special Handling Requirements	
Routine Turnaround Time	1 hour
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	<2 months	Both	0.17	1.01	g/L		
2 months	<4 months	Both	0.07	0.67	g/L		
4 months	<14 years	Both	0.05	0.29	g/L		
14 years	<18 years	Both	0.14	0.38	g/L		
18 years	150 years	Both	0.15	0.45	g/L		

Note that all CSF Protein results are telephoned.

Test Orderable	Protein Electrophoresis Urine *EX*
Synonym(s)	Urine Protein Electrophoresis
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Protein Creatinine Ratio (Spot sample)
Synonym(s)	Urine Protein:Creatinine Ratio, PCR
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both	0	20	mg/mmol		

Test Orderable	Pseudocholinesterase *EX*
Synonym(s)	
Testing Location (if not Sidra)	Mayo HMC
Specimen Type(s)	Blood
Container(s)	0-150 years: Li Heparin
Volume (recommended)	2 mL
Special Handling Requirements	Separate serum within 2 hours of collection.
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Renin Activity *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Blood
Container(s)	0-2y: MAP / Microtainer EDTA 2y-150y: EDTA
Volume (recommended)	Microtainer: 0.5 mL EDTA: 1.0 mL
Special Handling Requirements	Send to the laboratory within one hour of collection, on ice if available.
Routine Turnaround Time	Sendaway: 2-4 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Name	Rheumatoid Factor
Synonym(s)	RF
Testing Location (if not Sidra)	
Specimen Type(s)	Whole Blood
Container(s)	0-2 years: Lithium heparin 2-150 years: SST
Volume (recommended)	0-2 years: 0.5 mL 2-150 years: 1 mL
Special Handling Requirements	
Routine Turnaround Time	8 hours
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals Rheumatoid Factor							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both		<14	IU/mL		

Test Orderable	Salicylate Level
Synonym(s)	Aspirin Level
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both	100	300	mg/L		>300

Where excess salicylate ingestion is suspected, a sample should be collected as soon as possible. Subsequently, based on clinical findings or the initial salicylate result, analysis should be repeated every 2-4 hours until the level starts to decrease. In toxicity, concentrations may continue to rise for several hours.

Test Orderable	Selenium Level
Synonym(s)	Se Level
Testing Location (if not Sidra)	
Specimen Type(s)	Plasma
Container(s)	0-150 years: Trace Elements K2-EDTA tube (royal blue cap – Purple line)/ Trace Elements serum tube (royal blue cap – Red line)
Volume (minimum)	0.5 mL
Special Handling Requirements	Samples received in any other container than the trace elements tube will be rejected.
Routine Turnaround Time	Up to 1 week
Urgent Turnaround Time	N/A
STAT Turnaround Time	N/A

Target Range							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	<28 days	Female	0.25	0.82	µmol/L	N/A	N/A
0	<28 days	Male	0.18	0.90	µmol/L	N/A	N/A
1 month	<1 year	Female	0.11	0.92	µmol/L	N/A	N/A
1 month	<1 year	Male	0.11	0.76	µmol/L	N/A	N/A
1 year	<5 years	Female	0.26	1.27	µmol/L	N/A	N/A
1 year	<5 years	Male	0.32	1.19	µmol/L	N/A	N/A
5 years	<14 years	Female	0.45	1.24	µmol/L	N/A	N/A
5 years	<14 years	Male	0.43	1.25	µmol/L	N/A	N/A
14 years	150 years	Both	0.80	1.50	µmol/L	N/A	N/A

Ranges adopted from:

Heitland et al. J Trace Elements in Medicine and Biology v20 (2006) p253-262.

Test Orderable	Sex Hormone Binding Globulin
Synonym(s)	SHBG
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	Urgent TAT: N/A
STAT Turnaround Time	STAT TAT: N/A

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0 months	<1 month	Both	12	116	nmol/L		
1 month	<1 year	Both	32	232	nmol/L		
1 year	<8 years	Both	53	174	nmol/L		
8 years	<11 years	Both	45	144	nmol/L		
11 years	<13 years	Both	16	132	nmol/L		
13 years	<19 years	Female	18	96	nmol/L		
13 years	<19 years	Male	10	75	nmol/L		
19 years	50 years	Male	13	90	nmol/L		
19 years	46 years	Female	18	136	nmol/L		
46 years	150 years	Female	17	125	nmol/L		

No reference interval available for males >50 years.

Test Orderable	Sirolimus Level
Synonym(s)	Rapamycin
Testing Location (if not Sidra)	
Specimen Type(s)	Whole Blood
Container(s)	0-150 years: EDTA
Volume (recommended)	0.5 mL
Special Handling Requirements	
Routine Turnaround Time	48 – 72 Hours The assay is performed on Sundays, Tuesdays, and Thursdays. To ensure inclusion in the analytical run for a given day, specimens must be received in the laboratory no later than 11:00 AM. Results are released by 2:30 PM on the day of analysis
Urgent Turnaround Time (suspected toxicity ONLY)	Contact the On-call Biochemistry Consultant (via AMION). Approval and scheduling will also depend on staff availability.
STAT Turnaround Time (suspected toxicity ONLY)	.

Target Range							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
All ages, male and female.							
Trough Sirolimus Target Range:							
4.0 – 20.0 mcg/L (single therapy with Sirolimus)							
The ranges above are provided as only a rough guideline. Target concentrations depend on the drug regimen used, the type of transplant, time post transplantation, and other clinical factors such as renal function, rejection status and are subject to interpretation.							
If monitoring blood levels of immunosuppressant drugs (tacrolimus, cyclosporine, sirolimus, everolimus), it is advisable to collect blood specimens immediately prior to administration of the next dose i.e. a trough level. However, if analysis is indicated due to suspected toxicity, the sample may be collected at any time.							
Analytical method: Liquid chromatography tandem mass spectrometry (LC-MS/MS)							

Test Orderable	Sodium Level
Synonym(s)	Na Level
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	< 7 days	Both	135	147	mmol/L	<126	>154
7 days	< 2 years	Both	135	145	mmol/L	<126	>154
2 years	< 16 years	Both	135	145	mmol/L	<126	>154
16 years	150 years	Both	135	145	mmol/L	< 121	>154

Test Orderable	Sodium Level 24 Hour Urine
Synonym(s)	24 Hour Urine Sodium Level, Na Level 24 Hour Urine, Urine 24 Hour Sodium Level
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: 24 Hr Urine Container
Volume (recommended)	24 Hr Urine volume
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	18 years	Both	0	3	mmol/kg/ 24hrs		
19 years	150 years	Male	40	220	mmol/24 hrs		
19 years	150 years	Female	27	287	mmol/24 hrs		

Note pediatric reference values are per kilogram of patient weight.

Test Orderable	Sodium Level Urine (Spot sample)
Synonym(s)	Na Level Urine, Urine Sodium Level
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	Urgent TAT: 2 h
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High

No reference intervals provided.

Test Orderable	Soluble Transferrin Receptor Level *EX*
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: SST
Volume (recommended)	2 mL
Special Handling Requirements	Separate serum within 2hrs of draw
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Sweat Chloride Test
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Sweat
Container(s)	0-150 years: Coil
Volume (recommended)	15.0 µL
Special Handling Requirements	<p>To increase the likelihood of collecting an adequate sweat specimen, patients should meet the following criteria:</p> <p>For asymptomatic newborns with positive screen or positive pre-natal genetic testing:</p> <ul style="list-style-type: none"> • Greater than 10 days old • Greater than 36 weeks gestation • Weigh > 2kg. <p>For symptomatic newborns (e.g. those with meconium ileus)</p> <ul style="list-style-type: none"> • Can be evaluated as early as 48hrs after birth but maybe inconclusive at this age. • Patients should be normally hydrated and without systemic illness. • Sweat tests should be delayed in subjects who are dehydrated, underweight, and systemically unwell or who have eczema affecting the potential stimulation sites where practicable. <p>Please contact pulmonology clinic to arrange an appointment for this procedure</p>
Routine Turnaround Time	The clinic operates every Thursday, and results are released by the end of the business day.
Urgent Turnaround Time STAT Turnaround Time	Contact the On-call Biochemistry Consultant (via AMION). Approval and scheduling will also depend on staff and booking availability

Age	Normal Range	Intermediate Range	Indicative of CF
Applies to all ages	<30 mmol/L	30 -59 mmol/L	>59 mmol/L

Test Orderable	Tacrolimus Level
Synonym(s)	FK506 Lvl
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-150 years: EDTA
Volume (recommended)	0.5 mL
Special Handling Requirements	
Routine Turnaround Time	48 – 72 Hours The assay is performed on Sundays, Tuesdays, and Thursdays. To ensure inclusion in the analytical run for a given day, specimens must be received in the laboratory no later than 11:00 AM. Results are released by 2:30 PM on the day of analysis
Urgent Turnaround Time (suspected toxicity ONLY)	Contact the On-call Biochemistry Consultant (via AMION). Approval and scheduling will also depend on staff availability.
STAT Turnaround Time (suspected toxicity ONLY)	.

Target Range							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
All ages male and female.							
Trough Tacrolimus Target Range:							
7.0-21.0 mcg/L (0 – 3 months after transplant)							
8.5 – 17.0 mcg/L (>3 months after transplant)							
Up to 20.0 mcg/L (in pancreas and bone marrow transplant)							
The ranges above are provided as only a rough guideline. Target concentrations depend on the drug regimen used, the type of transplant, time post transplantation, and other clinical factors such as renal function, rejection status and are subject to interpretation.							
If monitoring blood levels of immunosuppressant drugs (tacrolimus, cyclosporine, sirolimus, everolimus), it is advisable to collect blood specimens immediately prior to administration of the next dose i.e. a trough level. However, if analysis is indicated due to suspected toxicity, the sample may be collected at any time.							
Sample analyzed using Tandem Mass Spectrometry.							

Test Orderable	Testosterone Level
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0 year	<1.5 years	Female	0.0	2.2	nmol/L		
0 year	<1.5 years	Male	0.0	9.9	nmol/L		
1.5 years	<7 years	Both	0.0	0.4	nmol/L		
7 years	<9 years	Both	0.0	0.6	nmol/L		
9 years	<12 years	Both	0.0	1.6	nmol/L		
12 years	<15 years	Female	0.4	2.3	nmol/L		
12 years	<19 years	Male	0.4	19.6	nmol/L		
15 years	<19 years	Female	0.6	3.0	nmol/L		
19 years	150 years	Male	6.1	27.3	nmol/L		
19 years	150 years	Female	0.4	2.6	nmol/L		

Test Orderable	Theophylline Level *EX*
Synonym(s)	Aminophylline Level
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Blood
Container(s)	0-150 years: SST
Volume (recommended)	2 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 1 week
Urgent Turnaround Time	
STAT Turnaround Time	

Target Range							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Thiopurine Methyltransferase *EX* \$\$
Synonym(s)	TPMT
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: EDTA
Volume (recommended)	4 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Please note, unless a patient undergoes a bone marrow transplant, this test never needs to be repeated in a patient; enzyme activity does not decrease with age, or any other physiological factor.

Test Orderable	Thyroid Peroxidase Antibody (TPO)
Synonym(s)	Thyroid Antimicrosomal Antibody, TPO
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Li Heparin 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	N/A

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
18 years	80 years	Both		<10	kU/L		

No reference interval quoted for children.

Test Orderable	Thyroid Profile
Synonym(s)	TFT, Thyroid Function Test
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	2 hours

Panel includes the following analytes:

Thyroid Stimulating Hormone (TSH), Free T4 (Free Thyroxine).

Refer to individual analytes for reference ranges.

Test Orderable	Tobramycin Level (Once Daily Pre) *EX* \$
Synonym(s)	Nebcin Lvl Once Daily Pre
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: SST
Volume (recommended)	2 mL
Special Handling Requirements	Separate serum within 2hrs of draw
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Target Range							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both		1.0	mg/L		>1

Sample to be collected pre-dose.

Test Orderable	Tobramycin Level Peak *EX* \$
Synonym(s)	Nebcin Lvl Peak
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: SST
Volume (recommended)	2 mL
Special Handling Requirements	Separate serum within 2hrs of draw
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Target Range							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both	5	10	mg/mL		> 10

Measurement of peak concentrations is not routinely recommended. If necessary, this should be collected 1-hour post-dose.

Test Orderable	Tobramycin Level Trough *EX* \$
Synonym(s)	Nebcin Lvl Trough
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: SST
Volume (recommended)	2 mL
Special Handling Requirements	Separate serum within 2 hours of collection.
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Target Range							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both	0.6	2.0	mg/mL		> 2

Sample to be collected pre-dose.

Test Orderable	Total CO2 Level
Synonym(s)	Bicarbonate Level, CO2 Lvl
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	< 3 months	Both	17	27	mmol/L	< 15	> 40
3 months	< 2 years	Both	18	29	mmol/L	< 15	> 40
2 years	< 16 years	Both	21	31	mmol/L	< 15	> 40
16 years	150 years	Both	22	32	mmol/L	< 15	> 40

Test Orderable	Total Protein
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	< 15 days	Both	52	79	g/L		
15 days	< 1 year	Both	43	68	g/L		
1 year	< 6 years	Both	59	72	g/L		
6 years	< 9 years	Both	62	74	g/L		
9 years	< 19 years	Both	63	77	g/L		
19 years	< 150 years	Both	66	83	g/L		

Test Orderable	Transferrin
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	< 9 weeks	Both	1.0	2.2	g/L		
9 weeks	< 1 year	Both	1.0	3.2	g/L		
1 year	< 19 years	Both	2.1	3.3	g/L		
19 years	150 years	Both	2.0	3.6	g/L		

Transferrin Saturation (derived from Iron and Transferrin values)

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	< 1 year	Female	6	29	%		
0	< 1 year	Male	7	32	%		
1 year	< 18 years	Both	8	40	%		
18 years	150 years	Female	10	45	%		
18 years	150 years	Male	11	55	%		

Test Orderable	Triglycerides
Synonym(s)	Trigs
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	N/A

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	< 15 days	Both	1.1	3.3	mmol/L		>20
15 days	< 1 year	Both	0.7	3.3	mmol/L		>20
1 year	< 19 years	Both	0.6	2.5	mmol/L		>20
19 years	150 years	Both	See below	See below	mmol/L		>20

Note that adult reference values are not given, as the results should form part of a cardiovascular risk assessment, which includes other risk factors apart from lipid levels.

Test Orderable	Troponin-I Level (High Sensitivity)
Synonym(s)	High-sensitivity TnI Level, Trop I Level
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	1 hour
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Female	2.3	12	ng/L		12
0	150 years	Male	2.3	20	ng/L		20

Upper reference limit relates to 99th centile of normal, in adults.

Test Orderable	Thyroid Stimulating Hormone
Synonym(s)	TSH
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	2 hours

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	Day 1	Both	2.43	24.03	mIU/L		
Day 1	Day 2	Both	1.90	17.58	mIU/L		
Day 2	Day 3	Both	1.40	13.10	mIU/L		
Day 3	Day 4	Both	0.94	9.65	mIU/L		
Day 4	Day 5	Both	0.6	6.82	mIU/L		
Day 5	1 Week	Both	0.58	5.58	mIU/L		
>1 Week	<12 years	Both	0.76	4.64	mIU/L		
12 years	150 years	Both	0.38	5.33	mIU/L		

Please note: A test called **TSH only** has been created, primarily for patients in whom a thyroid disorder has already been diagnosed, and used to e.g. monitor the appropriateness of the dose of Thyroxine replacement. **The test will not reflex FT3 or FT4**, regardless of TSH result, so it is imperative that clinicians and physicians use this test only when indicated, otherwise there is a risk that a diagnosis of secondary hypothyroidism may be missed.

Pregnancy Related Reference Intervals					
Trimester	Lower Limit	Upper Limit	Units	Critical Low	Critical High
1 st Trimester	0.05	3.7	mIU/L		
2 nd Trimester	0.31	4.35	mIU/L		
3 rd Trimester	0.41	5.18	mIU/L		

Test Orderable	Urea Level
Synonym(s)	Blood Urea Nitrogen, BUN
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	<15 days	Both	1.1	8.2	mmol/L		>14.9
15 days	< 1year	Both	1.3	6	mmol/L		>14.9
1 year	< 10 years	Both	3.2	7.9	mmol/L		>14.9
10 years	< 19 years	Male	2.6	7.5	mmol/L		>14.9
10 years	< 19 years	Female	2.6	6.8	mmol/L		>14.9
19 years	150 years	Both	2.8	7.2	mmol/L		>29.9

Test Orderable	Urea Level 24 Hour Urine
Synonym(s)	24 Hour Urine Urea Nitrogen, Urine 24 Hour Urea Nitrogen
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: 24 Hr Urine Container
Volume (recommended)	24 Hr Urine volume
Special Handling Requirements	
Routine Turnaround Time	2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High

No reference interval quoted.

Test Orderable	Urea Level Urine
Synonym(s)	Urine Urea Nitrogen
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	2 Weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High

No reference interval quoted.

Test Orderable	Uric Acid 24 Hour Urine
Synonym(s)	24 Hour Urine Uric Acid, Urine 24 Hour Uric Acid
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: 24 Hr Urine Container
Volume (recommended)	24 Hr Urine volume
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	18 years	Both	0	0.21	mmol/kg/ 24 hrs		
19 years	150 years	Both	1.5	4.5	mmol/24 hrs		

Note pediatric reference values are per kilogram of patient weight.

Test Orderable	Uric Acid Body Fluid *EX*
Synonym(s)	Body Fluid Uric Acid
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Ascites Fluid, Pancreatic Fluid, Pleural Fluid, Peritoneal Fluid, Pericardial Fluid, Other (Enter as Order Comment), Bile Fluid, Bronchial Lavage Upper Lobe, Bronchial Lavage Lower Lobe, JP Abdomen Fluid, Peritoneal Dialysis Fluid, Synovial Fluid Right Side, Synovial Fluid Left Side, Thoracentesis Fluid, Wound Drain
Container(s)	0-150 years: Sterile Container
Volume (recommended)	1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	N/A

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
			N/A				

Test Orderable	Uric Acid Level
Synonym(s)	Urate
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	< 15 days	Both	164	776	μmol/L		
15 days	< 1 year	Both	91	384	μmol/L		
1 year	< 12 years	Both	104	293	μmol/L		
12 years	< 19 years	Male	155	463	μmol/L		
12 years	< 19 years	Female	152	355	μmol/L		
19 years	150 years	Male	208	428	μmol/L		
19 years	150 years	Female	155	357	μmol/L		

Test Orderable	Uric Acid Urine (Spot urine)
Synonym(s)	Urine Uric Acid
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	N/A

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High

No reference interval provided.

Test Orderable	Urinalysis (-/+ Microscopy)
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	Send to the laboratory Immediately
Routine Turnaround Time	4 hours
Urgent Turnaround Time	Urgent TAT: 2 h
STAT Turnaround Time	1 hour

Urinalysis is undertaken using Dipstick and includes the following analytes:

Color, pH, Specific Gravity, Protein, Glucose, Ketones, Bilirubin, Blood, Nitrite, Urobilinogen, Leukocyte Esterase (presence of white cells)

Expected results	
Color	Clear
Specific Gravity	1.005-1.035
pH	5.0 to 8.0
Protein	Negative, Trace
Glucose	Negative
Ketones	Negative
Bilirubin	Negative
Blood	Negative
Urobilinogen	0-16 UMOL/L
Nitrite	Negative
Leukocyte Esterase	Negative

Test Orderable	Urine Microscopy (Only)
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Urine
Container(s)	0-150 years: Sterile Urine Container
Volume (recommended)	10 mL
Special Handling Requirements	Send to the laboratory Immediately
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	1 hour

Urine microscopy looks for the presence (and Identification) or absence of the following:

White Blood Cells, Red Blood Cells, Epithelial Cells, Bacteria, Casts, Crystals

	Expected results
Leukocyte (WBC)	Male 0 - 2 per high power field (hpf) Female 0 - 5 per hpf
Erythrocytes (RBC)	Male 0 - 2 per hpf Female 0 - 5 per hpf
Squamous Epithelial Cells	0 - 2 per hpf
Transitional epithelial cells or renal epithelial cells	Absent
Bacteria	Absent
Yeast	Absent
Crystals	Absent
Casts	Absent

Test Orderable	Valproate Level
Synonym(s)	Epilim Level
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 1 week
Urgent Turnaround Time	
STAT Turnaround Time	

Target Range							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High

Target range is 50 – 100mg/L, although there is a poor relationship between concentration and effect/adverse effects.

Toxic levels are more common above 150 mg/L.

In routine monitoring, a pre-dose (trough) level up to 1 hour before is preferred.

Test Orderable	Vancomycin Level
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-150 years: SST
Volume (recommended)	1.0 mL
Special Handling Requirements	HMC
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Target Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both			mg/L		>40

- Children’s and Adult Antibiotic Guidelines: [Sidra Portal - Clinical Guidelines](#)

Test Orderable	Vancomycin Level – IV Continuous
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Target Range							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both	15	25	mg/L		> 30

- Children’s and Adult Antibiotic Guidelines: [Sidra Portal - Clinical Guidelines](#)

Test Orderable	Vancomycin Level Peak
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Target Range							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both	25	40	mg/L		> 40

Measurement of peak concentrations is not routinely recommended. If necessary this is taken immediately after completion of 1-hour infusion

- Children’s and Adult Antibiotic Guidelines: [Sidra Portal - Clinical Guidelines](#)

Test Orderable	Vancomycin Level Trough
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-1/2y: Micro Li Hep Gel 1/2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Target Range							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both	10	20	mg/L		>20

- Children’s and Adult Antibiotic Guidelines: [Sidra Portal - Clinical Guidelines](#)

Test Orderable	Vitamin A Level
Synonym(s)	Retinol
Indication for measurement	Vitamin A is primarily used for monitoring patients with vision and skin abnormalities; Vitamin A deficiency can lead to night blindness, xerophthalmia, immunodeficiency and some dermal conditions e.g. dry skin and cheilosis.
Specimen Type(s)	Serum
Container(s)	0-2 years: Micro SST >2 years -150 years: SST
Volume (recommended)	Micro SST: 0.5 mL SST: 2.0 mL
Special Handling Requirements	Transport immediately to the laboratory, protected from light (wrap in foil).
Routine Turnaround Time	The assay will be performed once a week (Wednesday) and results will be available within 24 hours post-analysis.
Urgent Turnaround Time	N/A
STAT Turnaround Time	N/A

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	N/A	
0 Minutes	<1 Year	Both	0.3	1.9	µmol/L		
1 Year	<11 Years	Both	1.0	1.6	µmol/L		
11 Years	<16 Years	Both	0.9	1.9	µmol/L		

These ranges are based on data included in the CALIPER (Canadian Laboratory Initiative on Pediatric Reference Intervals) project:

<https://caliperproject.ca/caliper/database/>

Test Orderable	Vitamin B1 Level *EX*
Synonym(s)	Thiamine Level
Testing Location (if not Sidra)	HMC
Specimen Type(s)	Blood
Container(s)	0-150 years: EDTA
Volume (recommended)	4.0 mL
Special Handling Requirements	Send to the Laboratory protected from light.
Routine Turnaround Time	Sendaway: 2-4 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to HMC Lab Guide							

Test Orderable	Vitamin B12 Level
Synonym(s)	B12 Level, Cobalamin
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Li Hep Gel 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	2 hours
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0 years	<1 year	Both	118	1100	pmol/L	N/A	N/A
1 years	<2 years	Both	197	1100	pmol/L	N/A	N/A
2 years	<8 years	Both	190	747	pmol/L	N/A	N/A
8 years	<14 years	Both	149	772	pmol/L	N/A	N/A
14 years	<19 years	Both	132	531	pmol/L	N/A	N/A
19 years	150 years	Both	115	1000	pmol/L	N/A	N/A

Vitamin B12 deficiency is associated with a concentration <115pmol/L.

Values between 115-150pmol/L can also be associated with symptoms of anemia, therefore patients should be assessed accordingly.

Test Orderable	Vitamin B6 Level *EX*
Synonym(s)	Pyridoxine
Testing Location (if not Sidra)	Mayo HMC
Specimen Type(s)	Blood
Container(s)	0-150 years: Li Heparin
Volume (recommended)	2.0 mL
Special Handling Requirements	Patient must be fasted, or the sample collected pre-feed.
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Vitamin D Level
Synonym(s)	25 (OH) Cholecalciferol
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Volume (recommended)	Microtainer: 0.5 mL SST: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	Urgent TAT: N/A
STAT Turnaround Time	STAT TAT: N/A

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0 year	150 years	Both	See comment below	See comment below	nmol/L	N/A	N/A

Result Comment
Severe deficiency: <25 nmol/L
Moderate deficiency: 25 to <50 nmol/L
Insufficiency: 50 to <75 nmol/L
Possible toxicity: >200 nmol/L

Please note: The assay employed at Sidra measures Total Vitamin D (D2 and D3). It is not able to differentiate between the two isomers. The assay is also not able to detect the Vitamin D epimer, present in very young children.

1, 25 Dihydroxycholecalciferol (the active form of vitamin D) should only be ordered in patients with gross renal impairment, or in whom activity of the enzyme 1- α Hydroxylase has been shown to be low/impaired.

Test Orderable	Vitamin E Level
Synonym(s)	Tocopherol
Indication for measurement	Vitamin E is primarily used for monitoring patients with malnutrition or malabsorption, secondary to GI conditions including bowel disease, pancreatic disease, chronic cholestasis, celiac disease, cystic fibrosis and intestinal lymphangiectasia.
Specimen Type(s)	Serum
Container(s)	0-2 years: Micro SST >2 years -150 years: SST
Volume (recommended)	Microcontainer: 0.5 mL SST: 2.0 mL
Special Handling Requirements	Transport immediately to the laboratory, protected from light (wrap in foil).
Routine Turnaround Time	The assay will be performed once a week (Wednesday) and results will be available within 24 hours post-analysis.
Urgent Turnaround Time	N/A
STAT Turnaround Time	N/A

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	<1 year	Both	5	45	µmol/L	N/A	
1 year	150 years	Both	14.5	33	1 year		

These ranges are based on data included in the CALIPER (Canadian Laboratory Initiative on Pediatric Reference Intervals) project:

<https://caliperproject.ca/caliper/database/>

Test Orderable	Vitamin K Level *EX* \$
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Volume (recommended)	4.0 mL
Special Handling Requirements	
Routine Turnaround Time	Sendaway: up to 2 weeks
Urgent Turnaround Time	
STAT Turnaround Time	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Orderable	Voriconazole Level
Synonym(s)	
Testing Location (if not Sidra)	
Specimen Type(s)	Blood
Container(s)	0-2y: Plain/Red Top 2y-150y: Plain/Red Top
Volume (recommended)	Microtainer: 0.5 mL Red Top: 1.0 mL
Special Handling Requirements	
Routine Turnaround Time	4 hours
Urgent Turnaround Time	1 hour
STAT Turnaround Time	1 hour

Target Range							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	150 years	Both	2.0	5.5	mg/L		>6.0

- Target range applies to trough levels
- For sample collection and guidance refer to : [Lexicomp](#)

Test Orderable	Zinc Level
Synonym(s)	Zn level
Testing Location (if not Sidra)	
Specimen Type(s)	Serum
Container(s)	0-150 years: Trace Elements Serum tube (royal blue cap – Red line)
Volume (minimum)	0.5 mL
Special Handling Requirements	Samples received in any other container than the trace elements tube will be rejected.
Routine Turnaround Time	Up to 1 week
Urgent Turnaround Time	If toxicity is suspected, contact the on-call Biochemistry Consultant (via AMiON)
STAT Turnaround Time	N/A

Target Range							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
0	1 month	Both	10.0	22.0	µmol/L	N/A	N/A
>1 month	1 year	Both	10.0	18.0	µmol/L	N/A	N/A
>1 year	150 years	Both	10.0	22.0	µmol/L	N/A	N/A
Deficiency is likely (in all ages and gender groups) < 6.0 µmol/L							

Ranges adopted from:

Heitland et al. J Trace Elements in Medicine and Biology v20 (2006) p253-262.

Yanagisawa JMAJ (2004) **47** p362.

Test Name	Pathology Gyn Cytology *EX*
Collection Instructions	Transport samples to Lab the same day or within 24 hours. SurePath samples require that the sample brush be sent with the sample and rinsed in the vial. Ensure sample pot lids are securely closed.
Specimen Type	20 ml SurePath PreservCyt vial for Cervical Cytology.
Specimen Handling	<u>Clinical handling</u> Incomplete labelling can lead to delays in processing and results. Sendaway procedure to HMC
Turnaround Time	<u>Routine</u> – 14 calendar days , 16 calendar days with HPV requested

Test Name	Pathology Non-Gyn Cytology *EX*
Collection Instructions	Transport samples to Lab the same day and within 2 hours of sampling. Ensure sample pot lids are securely closed
Specimen Type	Provide sample of native fluid eg. pleural / ascitic fluid, up to 20 ml volume in a Sterile container.
Specimen Handling	Sendaway procedure to HMC
Turnaround Time	<u>Routine</u> – 8 calendar days

Test Name	Pathology Gyn Cytology *EX*
Collection Instructions	Transport samples to Lab the same day or within 24 hours. SurePath samples require that the sample brush be sent with the sample and rinsed in the vial. Ensure sample pot lids are securely closed.
Specimen Type	20 ml SurePath PreservCyt vial for Cervical Cytology.
Specimen Handling	<u>Clinical handling</u> Incomplete labelling can lead to delays in processing and results. Sendaway procedure to HMC
Turnaround Time	<u>Routine</u> – 14 calendar days , 16 calendar days with HPV requested

Test Name	Pathology Non-Gyn Cytology *EX*
Collection Instructions	Transport samples to Lab the same day and within 2 hours of sampling. Ensure sample pot lids are securely closed
Specimen Type	Provide sample of native fluid eg. pleural / ascitic fluid, up to 20 ml volume in a Sterile container.
Specimen Handling	Sendaway procedure to HMC
Turnaround Time	<u>Routine</u> – 8 calendar days



Division of Genetic Pathology



Genetic Pathology

Test Name	PG Genetic Test
Synonym(s)	Sanger sequencing, targeted sequencing, individual exon sequencing, gene sequencing, gene panels, whole exome sequencing, molecular karyotype, microarray
Testing Status	In-house, plus sendaway
Routine TAT	Routine TAT: 8-12 weeks
Urgent TAT	Urgent TAT: 2-4 weeks
STAT TAT	N/A
Specimen Type(s)	Blood; Bone Marrow; Cord Tissue; DNA External; Placental Tissue; Skin; Tissue- Other
Container(s)	EDTA; Sterile container
Collection volume	<p>Blood:</p> <p>Adult: 2.0 mL (preferred 4.0 mL)</p> <p>Pediatric: 1.0 mL (preferred 2.5 mL)</p> <p>Neonate (1-30 days): 0.5 mL (preferred 1.5 mL)</p> <p>Tissues:</p> <p>Specimens to be kept fresh at room temperature in sterile container containing saline.</p>
Special Handling	Transport all bloods at room temperature within 24-48 hours. If necessary specimens can be refrigerated overnight/over weekend for transport at room temperature the following day.
Clinical Information	<p>This orderable includes DNA extraction and storage for molecular testing, both sequence-based and whole genome dosage analysis (deletions/duplications).</p> <p>Include reasons for referral (clinical phenotype), family history of disease (if any) and consanguinity.</p> <p>A suspected diagnosis should be included in Order Comments, together with a previous genetic result if they are available.</p> <p>This orderable is NOT for conventional karyotyping, FISH studies nor chromosome fragmentation (chromosome breakage) testing; please use PG G-Banding/FISH (Genetic Test).</p>

Test Name	PG Family Study (Genetic Test)
Synonym(s)	Sanger sequencing, targeted sequencing, exon sequencing, gene sequencing, gene panels, whole exome sequencing, molecular karyotype
Testing Status	In-house, plus sendaway
Routine TAT	Routine TAT: 8-12 weeks
Urgent TAT	Urgent TAT: 2-4 weeks
STAT TAT	N/A
Specimen Type(s)	Blood; DNA External
Container(s)	EDTA; Sterile container
Collection volume	Blood: Adult: 2.0 mL (preferred 4.0 mL) Pediatric: 1.0 mL (preferred 2.5 mL) Neonate (1-30 days): 0.5 mL (preferred 1.5 mL)
Special Handling	Transport all specimens at room temperature within 24-48 hours. If necessary specimens can be refrigerated overnight/over weekend for transport at room temperature the following day.
Clinical Information	This orderable is for collecting family member's DNA to reflex testing of family members of a proband for known, sequence-based or whole genome dosage (deletion/duplication) events. Critical information proband's MRN, relationship to proband, consanguinity, family history of genetic variant (if known) and clinical status of family member.

Test Name	PG G-Banding/FISH (Genetic Test) *EX*
Synonym(s)	Cytogenetics, Fluorescence <i>in situ</i> hybridization (FISH)
Testing Status	Sendaway
Routine TAT	Routine TAT: 4 weeks
Urgent TAT	Urgent TAT: 2 weeks (48 hours if requesting aneuploidy (trisomy) exclusion)
STAT TAT	N/A
Specimen Type(s)	Blood; Bone Marrow
Container(s)	Sodium heparin
Collection volume	Adult: 5.0 mL Pediatric: 3.0 mL Neonate (1-30 days): 2 mL
Special Handling	Transport all bloods at room temperature within 24-48 hours.
Clinical Information	<p>This orderable is for G-banding of metaphase chromosomes in the case of a clinical suspicion of chromosome re-arrangements, chromosome fragmentation (chromosome breakage), sex chromosome aneuploidy (such as Turner syndrome and Klinefelter syndrome) and trisomy exclusion, targeted FISH analysis of defined genomic regions and the detection of chromosomal mosaicism.</p> <p>Critical information: HC number, the reason(s) for referral (recurrent miscarriages), family history of chromosomal abnormality and consanguinity.</p> <p>It is advisable to add a companion order (PG Genetic Test) for DNA banking and possible reflex testing.</p>

Test Name	PG Amnio (Genetic Test) *EX*
Synonym(s)	Cytogenetics, rapid FISH, aneuploidy screening, Sanger sequencing, exon sequencing, gene sequencing, Molecular Karyotype, microarray
Testing Status	Sendaway
Routine TAT	N/A: all requests are urgent
Urgent TAT	<p>TAT: 2-3 weeks for trisomy exclusion/standard cytogenetic analysis</p> <p>5-6 weeks for testing of familial variants. Please contact the laboratory to discuss requirements prior to collecting sample – CVS, collected between the 10th and 12th weeks of pregnancy is the preferred sample type for this type of testing.</p>
STAT TAT	N/A
Specimen Type(s)	<p>Amniotic fluid</p> <p>NOTES:</p> <ol style="list-style-type: none"> 1. Blood stained fluid may fail to produce a result 2. In order to provide a sample with a sufficient yield of viable amniocytes for confident testing the sample should be collected between the 15th and 20th weeks of pregnancy.
Container(s)	Draw into two sterile containers (or syringes)
Collection volume	Total collection volume: 20mL
Special Handling	Transport all amniotic fluid at room temperature within 24-48 hours.
Clinical Information	<p>This orderable is for chromosome analysis of low as well as high-risk pregnancies. Analyses include rapid FISH (aneuploidy screening of chromosomes 13, 18, 21, X and Y, which can be undertaken within 2 days), molecular karyotype, as well as G-banding of metaphase chromosomes of cultured cells.</p> <p>Critical information: HC number, the reason(s) for referral (abnormal scan findings, confirmation of NIPT), family history of genetic abnormality (if any) and consanguinity.</p> <p>This orderable includes an automatic companion orderable (PG Genetic Test) for a maternal blood collection in order to</p>

	determine if there is maternal cell contamination of the amniotic fluid.
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Test Name	PG CVS (Genetic Test) *EX*
Synonym(s)	Cytogenetics, rapid FISH, aneuploidy screening, Sanger sequencing, exon sequencing, gene sequencing, Molecular Karyotype
Testing Status	Sendaway
Routine TAT	N/A: all requests are urgent
Urgent TAT	Urgent TAT: 2-3 weeks for trisomy exclusion/standard cytogenetic analysis 5-6 weeks for testing of familial variants. Please contact the laboratory to discuss requirements prior to collecting sample
STAT TAT	N/A
Specimen Type(s)	Chorionic Villus sample NOTE: Sample should be collected between the 10 th and 12 th weeks of pregnancy
Container(s)	Sterile container with Collection Medium NOTE: Contact Genetic Pathology with 48hours notice so that they can arrange sending Collection Media
Collection volume	30mg in Collection Medium
Special Handling	Transport all CVS at room temperature within 24-48 hours. If necessary specimens can be refrigerated overnight/over weekend for transport at room temperature the following day.
Clinical Information	<p>This orderable is for chromosome analysis of low as well as high-risk pregnancies. Analyses include rapid FISH (aneuploidy screening of chromosomes 13, 18, 21, X and Y, which can be undertaken within 2 days), molecular karyotype, as well as G-banding of metaphase chromosomes of cultured cells.</p> <p>Critical information: HC number, the reason(s) for referral (abnormal scan findings, confirmation of NIPT), family history of genetic abnormality (if any) and consanguinity.</p> <p>This orderable includes an automatic companion orderable (PG Genetic Test) for a maternal blood collection in order to determine if there is maternal cell contamination of the CVS.</p>

Test Name	PG NIPT (Genetic Test)
Synonym(s)	Non Invasive Prenatal Testing
Testing Status	In-House
Routine TAT	N/A: all requests should be urgent
Urgent TAT	2 weeks (10 business days)
STAT TAT	N/A
Specimen Type(s)	Blood
Container(s)	EDTA
Collection volume	2 X 10mL tubes (Each tube MUST have 6mL blood)
Special Handling	Transport samples at room temperature as soon as they are drawn
Clinical Information	<p>This orderable determines the risk that a fetus will be born with certain genetic abnormalities. This testing analyzes small fragments of DNA that are circulating in a pregnant woman's blood. NIPT primarily looks for Down syndrome (trisomy 21, caused by an extra chromosome 21), trisomy 18 (caused by an extra chromosome 18), trisomy 13 (caused by an extra chromosome 13), aneuploidy of all autosomes, and extra or missing copies of the X chromosome and Y chromosome (the sex chromosomes). The accuracy of the test varies by disorder.</p> <p>Critical information: family history of genetic disease, prior pregnancy with chromosomal /genetic disease, sex determination, BMI, gestational age, pregnancy status, chorionicity (if twins), and maternal age at egg collection in case of IVF</p>

Test Name	PG WGS Proband (Genetic Test)
Synonym(s)	Whole Genome Sequencing; WGS
Testing Status	In-house
Routine TAT	Routine TAT: 12-16 weeks
Urgent TAT	Urgent TAT: 2-4 weeks
STAT TAT	N/A
Specimen Type(s)	Blood
Container(s)	EDTA
Collection volume	Blood: Adult: 2.0 mL (preferred 4.0 mL) Pediatric: 1.0 mL (preferred 2.5 mL) Neonate (1-30 days): 0.5 mL (preferred 1.5 mL)
Special Handling	Transport all specimens at room temperature within 24-48 hours. If necessary, specimens can be refrigerated overnight/over weekend for transport at room temperature the following day.
Clinical Information	<p>This orderable includes DNA extraction and sequencing the patient's entire genome (including mitochondrial DNA). The orderable requires completing compulsory fields such as consent (or not) to receive ACMG findings, and HPO terms, which will guide sequence data analysis.</p> <p>This orderable is ONLY to be used by Clinical Genetics.</p> <p>This order is to be used for testing Nationals.</p> <p>In the event that this orderable is requested for non-Nationals then payment will be required before ordering the test.</p>

Test Name	PG WGS Family Member (Genetic Test)
Synonym(s)	Whole Genome Sequencing; WGS
Testing Status	In-house
Routine TAT	Routine TAT: 12-16 weeks
Urgent TAT	Urgent TAT: 2-4 weeks
STAT TAT	N/A
Specimen Type(s)	Blood
Container(s)	EDTA
Collection volume	Blood: Adult: 2.0 mL (preferred 4.0 mL) Pediatric: 1.0 mL (preferred 2.5 mL) Neonate (1-30 days): 0.5 mL (preferred 1.5 mL)
Special Handling	Transport all specimens at room temperature within 24-48 hours. If necessary, specimens can be refrigerated overnight/over weekend for transport at room temperature the following day.
Clinical Information	<p>This orderable includes DNA extraction and sequencing the patient's entire genome (including mitochondrial DNA). The patient must be related to a proband (affected patient), and is usually a parent, or a sib. Include clinical phenotype (if any), relationship to proband, and consent (or not) to receive ACMG findings. The orderable requires the inclusion of HPO terms, in the event the patient is affected, which will guide sequence data analysis.</p> <p>This orderable is ONLY to be used by Clinical Genetics.</p> <p>This order is to be used for testing Nationals.</p> <p>Do not use this order for multiple sibs as the PG Family Study (Genetic Test) should be used instead.</p> <p>In the event that this orderable is requested for non-Nationals then payment will be required before ordering the test.</p>

PG WES Proband (Genetic Test) *EX*

Test Name	PG WES Proband (Genetic Test) *EX* \$\$\$\$
Synonym(s)	Whole Exome Sequencing; WGS
Testing Status	Sendaway
Routine TAT	Routine TAT: 12-16 weeks
Urgent TAT	Urgent TAT: 2-4 weeks
STAT TAT	N/A
Specimen Type(s)	Blood
Container(s)	EDTA; Sterile container
Collection volume	Blood: Adult: 2.0 mL (preferred 4.0 mL) Pediatric: 1.0 mL (preferred 2.5 mL) Neonate (1-30 days): 0.5 mL (preferred 1.5 mL)
Special Handling	Transport all specimens at room temperature within 24-48 hours. If necessary, specimens can be refrigerated overnight/over weekend for transport at room temperature the following day.
Clinical Information	<p>This orderable includes DNA extraction and a sendaway to an external laboratory for sequencing the patient's entire exome (including mitochondrial DNA). The orderable requires completing compulsory fields such as consent (or not) to receive ACMG findings, and HPO terms, which will guide sequence data analysis.</p> <p>This orderable is ONLY to be used by Clinical Genetics.</p> <p>In the event that this orderable is requested for non-Nationals then payment will be required before ordering the test.</p>

PG WES Family Member (Genetic Test) *EX*

Test Name	PG WES Family Member (Genetic Test) *EX* \$\$\$\$
Synonym(s)	Whole Exome Sequencing; WGS
Testing Status	Sendaway
Routine TAT	Routine TAT: 12-16 weeks
Urgent TAT	Urgent TAT: 2-4 weeks
STAT TAT	N/A
Specimen Type(s)	Blood
Container(s)	EDTA
Collection volume	Blood: Adult: 2.0 mL (preferred 4.0 mL) Pediatric: 1.0 mL (preferred 2.5 mL) Neonate (1-30 days): 0.5 mL (preferred 1.5 mL)
Special Handling	Transport all specimens at room temperature within 24-48 hours. If necessary, specimens can be refrigerated overnight/over weekend for transport at room temperature the following day.
Clinical Information	<p>This orderable includes DNA extraction and sequencing the patient’s entire exome (including mitochondrial DNA). The patient must be related to a proband (affected patient), and is usually a parent, or a sib. The orderable requires completing compulsory fields such as consent (or not) to receive ACMG findings, and HPO terms, in the event the family member is affected, which will guide sequence data analysis.</p> <p>This orderable is ONLY to be used by Clinical Genetics.</p> <p>Do not use this order for multiple sibs as the PG Family Study (Genetic Test) should be used instead.</p> <p>This order is to be used for testing non-Nationals and will require payment prior to ordering the test.</p>



Division of Hematopathology



Hematology and Coagulation

Test Name	Acid Gel Electrophoresis
Synonym(s)	Hemoglobin Variant Investigation
Testing Status	In House
Routine TAT	1-2 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Map EDTA 1/2y-150y: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	Alkaline Gel Electrophoresis
Synonym(s)	Hemoglobin Variant Investigation
Testing Status	In house
Routine TAT	1-2weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Map EDTA 1/2y-150y: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	Anti Xa Level (LMWH/UFH)
Synonym(s)	Low Molecular Weight Heparin, Unfractionated Heparin
Testing Status	In House
Routine TAT	1 week
Urgent TAT	8 hours
STAT TAT	4 hours
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line Samples should be collected four (4) hours following heparin dose administration.
Clinical Information	

Test Name	Antithrombin Activity
Synonym(s)	AT III Activity
Testing Status	In-House
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	<p>Antithrombin (AT, formerly called "Antithrombin III") is an enzyme which inhibits thrombin, and thereby opposes the action of the coagulation cascade. AT's effects are potentiated by heparin.</p> <p>If AT activity is reduced, the patient is somewhat more likely to clot. AT deficiency is one of the more common inherited causes of venous thromboembolism, along with Factor 5 Leiden, Prothrombin gene mutation, Protein S deficiency, and Protein C deficiency.</p> <p>AT activity may also be reduced in various acquired states, including liver failure, D.I.C./sepsis, and in patients on ECMO or on heparin. AT activity is generally mildly reduced in patients immediately following any major thrombotic event, including physiologic thrombus formation.</p> <p>Usually it is not recommended to test AT in the immediate post-thrombotic period; rather, testing should be deferred until several weeks after any event and after any anticoagulation has been discontinued. The exception to this rule is in some neonates with acute thrombosis, in whom it may be important to differentiate between patients with almost zero AT activity and those with milder deficits.</p>

Test Name	APTT with Reflex Test
Synonym(s)	Activated Partial Thromboplastin Time, Partial Thromboplastin Time, PTT
Testing Status	In-House
Routine TAT	Routine TAT: 4 h
Urgent TAT	Urgent TAT: 1 h
STAT TAT	STAT TAT: 30 min
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	<p>Activated partial thromboplastin time (aPTT or just PTT) is a screening test of coagulation function. It tests factors in the intrinsic and common pathways: i.e. factors 12, 11, 9, 8, 10, 5, 2, and 1.</p> <p>An abnormal aPTT is seen in patients with a deficiency or inhibitor of one or more of these factors. In general, factor activity must be less than 50% to cause a prolongation of the aPTT. If a patient has a normal aPTT, the listed factors are most likely normal.</p> <p>The aPTT does not test for the activity of Factor 13, and does not test platelet function.</p> <p>aPTT is commonly used to monitor patients on unfractionated heparin: for many such patients, the target aPTT is two to three times the upper limit of the normal aPTT. Patients on low molecular weight heparin (LMWH) do not have a consistent elevation in aPTT, and this test is not appropriate for monitoring LMWH patients. Mixing study and/or anti-Xa testing may be added if unexplained prolonged aPTT, depending on the pattern of prolongation.</p>

Test Name	APTT Mixing Study
Synonym(s)	
Testing Status	In-House
Routine TAT	8 hours
Urgent TAT	4 hours
STAT TAT	2 hours
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	<p>In a patient with a prolonged aPTT, the aPTT mixing study is used to determine the mechanism for this prolongation: factor deficiency (e.g. a deficiency of factor 12, 11, 9, 8, 10, 5, 2, or 1) or inhibitor (e.g. due to heparin or lupus anticoagulant). For the mixing study to work, the patient's aPTT must be at least moderately prolonged: with mildly prolonged aPTTs the mixing study cannot be interpreted.</p> <p>In the mixing study, plasma from the patient is mixed 50/50 with plasma from a normal person. Then we compare the aPTT from the patient with the aPTT from the mixed patient/normal plasma. If mixing "corrects" the patient's aPTT back to normal, then the patient's prolongation is likely due to a factor deficiency (which the addition of normal plasma has corrected). If mixing does not "correct" the patient's prolonged aPTT, then the prolongation is likely due to an inhibitor (such as heparin or a lupus anticoagulant).</p> <p>The mixing study is a screening tool only. It does not provide a final diagnosis, and some complex patients may give atypical mixing study results. Mixing studies are reflex ordered within the laboratory and cannot be ordered directly from PowerChart.</p>

Test Name	Body Fluid Cell Count
Synonym(s)	
Testing Status	In-House
Routine TAT	Routine TAT: 4 h
Urgent TAT	Urgent TAT: 2 h
STAT TAT	STAT TAT: 1 h
Specimen Type(s)	Fluid
Container(s)	0-150 years: Sterile Container
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	Body Fluid Crystal Analysis *EX*
Synonym(s)	Crystal Exam Body Fluid
Testing Status	Sendaway - HMC
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Fluid
Container(s)	0-150 years: Sterile Container
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	CBC with Diff with Reflex Test
Synonym(s)	
Testing Status	In-House
Routine TAT	Routine TAT: 4 h
Urgent TAT	Urgent TAT: 1 h
STAT TAT	STAT TAT: 30 min
Specimen Type(s)	Blood
Container(s)	0-1/2y: Map EDTA 1/2y-150y: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	In children under 2 years, and in patients with macrocytosis, a reticulocyte count will be added to this test. If the CBC shows abnormal results which meet our criteria, a hematopathologist's peripheral smear review will be added to this test.

Test Name	Coagulation Profile with Reflex Test
Synonym(s)	
Testing Status	In-House
Routine TAT	Routine TAT: 4 h
Urgent TAT	Urgent TAT: 1 h
STAT TAT	STAT TAT: 45 min
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	Mixing study and/or anti-Xa testing may be added if unexplained prolonged aPTT, depending on the pattern of prolongation.

Test Name	D-Dimer
Synonym(s)	DDimer
Testing Status	In-House
Routine TAT	Routine TAT: 4 h
Urgent TAT	Urgent TAT: 2 h
STAT TAT	STAT TAT: 1 h
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	<p>The D dimer is a protein fragment released when fibrin clot is degraded by plasmin. The production of D dimer is a normal consequence of clot formation, when normal clot remodelling occurs. The presence of detectable levels of D dimer generally means that clot is forming or has formed in the patient: the test does not distinguish between physiological clot and pathological clot.</p> <p>The most robust clinical use of the D dimer assay is to exclude pulmonary embolism or deep vein thrombosis: a negative D dimer essentially rules out those processes. (In contrast, a positive D dimer is NOT diagnostic of P.E. or D.V.T.)</p> <p>This assay is also often used as part of a "D.I.C. panel": if the aPTT and PT/INR are elevated, platelets are low, and D dimer is positive, the pattern is consistent with (but not diagnostic of) D.I.C.</p> <p>Note that adult and pediatric inpatients may have a positive D dimer for which no satisfactory explanation can be found. A positive D dimer is not necessarily a pathological finding. D dimer results should be interpreted with caution.</p>

Test Name	ESR
Synonym(s)	Erythrocyte Sed Rate
Testing Status	In-House
Routine TAT	Routine TAT: 4 h
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Map EDTA 1/2y-150y: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	Erythrocyte Sedimentation Rate provides a very nonspecific measure of the patient's inflammatory status. It should be interpreted with caution.

Test Name	Factor 10 Activity *EX*
Synonym(s)	
Testing Status	Sendaway - HMC
Routine TAT	2-4 weeks
Urgent TAT	N/A
STAT TAT	N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	<p>The Factor 10 activity is a measure of the functional level of coagulation Factor 10 (Factor X) in the patient's plasma. Factor 10 is a factor in the common pathway.</p> <p>Factor activity is measured in percent, where 100% represents the average normal activity in healthy patients. For most coagulation factors in adults, the reference range is approximately 50% to 150%. In adults, a factor level of 50% is considered normal and will not lead to abnormal bleeding or abnormal results on coagulation tests (e.g. aPTT or PT). In children, the reference range will depend on the patient's age.</p> <p>A low level of Factor 10 may be seen in patients with D.I.C., vitamin K deficiency, warfarin treatment, liver failure, or very rarely in congenital deficiencies. A dysfunctional Factor 10 will also lead to a low level of Factor 10 activity, but this is extremely rare.</p>

Test Name	Factor 11 Activity
Synonym(s)	
Testing Status	In-House
Routine TAT	Routine TAT: 7 d
Urgent TAT	Urgent TAT: 8 h
STAT TAT	STAT TAT: 4 h
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	<p>The Factor 11 activity is a measure of the functional level of coagulation Factor 11 (Factor XI) in the patient's plasma. Factor 11 is a factor in the intrinsic pathway.</p> <p>Factor activity is measured in percent, where 100% represents the average normal activity in healthy patients. For most coagulation factors in adults, the reference range is approximately 50% to 150%. In adults, a factor level of 50% is considered normal and will not lead to abnormal bleeding or abnormal results on coagulation tests (e.g. aPTT). In children, the reference range will depend on the patient's age.</p> <p>A low level of Factor 11 may be seen in patients with congenital deficiency (so-called Hemophilia C) or with D.I.C. . A dysfunctional Factor 10 will also lead to a low level of Factor 11 activity, but this is extremely rare.</p>

Test Name	Factor 12 Activity
Synonym(s)	
Testing Status	In-House
Routine TAT	Routine TAT: 7 d
Urgent TAT	Urgent TAT: 8 h
STAT TAT	STAT TAT: 4 h
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	<p>The Factor 12 activity is a measure of the functional level of coagulation Factor 12 (Factor XII) in the patient's plasma. Factor 12 is a factor in the intrinsic pathway.</p> <p>Factor 12 is very important to the in vitro intrinsic coagulation pathway: if Factor 12 is deficient, the aPTT is typically severely prolonged. However, the role of Factor 12 in vivo is not clear: patients who are deficient in Factor 12 generally do not have any increase in bleeding risk, and Factor 12 deficiency is usually considered to be clinically irrelevant.</p> <p>The Factor 12 assay is usually performed as a follow up in patients with very prolonged aPTT results but who may have no bleeding history. There is no need to replace Factor 12 in a deficient patient.</p>

Test Name	Factor 13 Screen *EX*
Synonym(s)	
Testing Status	Sendaway - HMC
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	

Test Name	Factor 2 Activity *EX*
Synonym(s)	
Testing Status	Sendaway - HMC
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	<p>The Factor 2 activity is a measure of the functional level of coagulation Factor 2 (Factor II) in the patient's plasma. Factor 2 (prothrombin) is a factor in the common pathway. The active form, thrombin, is inhibited by heparin.</p> <p>Factor activity is measured in percent, where 100% represents the average normal activity in healthy patients. For most coagulation factors in adults, the reference range is approximately 50% to 150%. In adults, a factor level of 50% is considered normal and will not lead to abnormal bleeding or abnormal results on coagulation tests (e.g. aPTT or PT). In children, the reference range will depend on the patient's age.</p> <p>A low level of Factor 2 may be seen in patients with vitamin K deficiency, warfarin treatment, D.I.C., liver failure, or very rarely in congenital deficiencies. A dysfunctional Factor 2 will also lead to a low level of Factor 2 activity, but this is extremely rare.</p>

Test Name	Factor 5 Activity *EX*
Synonym(s)	
Testing Status	Sendaway - HMC
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	<p>The Factor 5 activity is a measure of the functional level of coagulation Factor 5 (Factor V) in the patient's plasma. Factor 5 is a factor in the common pathway. (Please note that the "Factor 5 activity" test is completely unrelated to "Factor 5 Leiden": the latter is an inherited prothrombotic disorder.)</p> <p>Factor activity is measured in percent, where 100% represents the average normal activity in healthy patients. For most coagulation factors in adults, the reference range is approximately 50% to 150%. In adults, a factor level of 50% is considered normal and will not lead to abnormal bleeding or abnormal results on coagulation tests (e.g. aPTT or PT). In children, the reference range will depend on the patient's age.</p> <p>A low level of Factor 5 may be seen in patients with D.I.C., liver failure, or very rarely in congenital deficiencies. A dysfunctional Factor 5 will also lead to a low level of Factor 5 activity, but this is extremely rare. In some patients with severe hepatic dysfunction, the factor 5 activity is used to assess the liver's synthetic function.</p>

Test Name	Factor 7 Activity
Synonym(s)	
Testing Status	In House
Routine TAT	7 days
Urgent TAT	8 hours
STAT TAT	4 hours
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	<p>The Factor 7 activity is a measure of the functional level of coagulation Factor 7 (FactorVII) in the patient's plasma. Factor 7 is a factor in the extrinsic pathway.</p> <p>Factor activity is measured in percent, where 100% represents the average normal activity in healthy patients. For most coagulation factors in adults, the reference range is approximately 50% to 150%. In adults, a factor level of 50% is considered normal and will not lead to abnormal bleeding or abnormal results on coagulation tests (e.g. PT). In children, the reference range will depend on the patient's age.</p> <p>A low level of Factor 7 may be seen in patients with vitamin K deficiency, D.I.C., hepatic failure leading, and (rarely) with inherited deficiency.</p>

Test Name	Factor 8 Activity
Synonym(s)	
Testing Status	In-House
Routine TAT	Routine TAT: 7 d
Urgent TAT	Urgent TAT: 8 h
STAT TAT	STAT TAT: 4 h
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	<p>The Factor 8 activity is a measure of the functional level of coagulation Factor 8 (Factor VIII) in the patient's plasma. Factor 8 is a factor in the intrinsic pathway.</p> <p>Factor activity is measured in percent, where 100% represents the average normal activity in healthy patients. For most coagulation factors in adults, the reference range is approximately 50% to 150%. In adults, a factor level of 50% is considered normal and will not lead to abnormal bleeding or abnormal results on coagulation tests (e.g. aPTT). In children, the reference range will depend on the patient's age.</p> <p>A low level of Factor 8 may be seen in patients with congenital deficiency (so-called Hemophilia A) or with D.I.C. . Low Factor 8 activity is also seen with coagulation inhibitors, which may be specific to Factor 8 (as in Hemophilia A with inhibitors, or in Acquired Hemophilia A) or nonspecific inhibitors (such as lupus anticoagulant). In cases where a specific Factor 8 inhibitor is suspected, please contact the Hematopathologist.</p>

Test Name	Factor 8 Inhibitor *EX*
Synonym(s)	Factor 8 Bethesda
Testing Status	Sendaway - HMC
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	Factor 8 inhibitors are seen most commonly in patients with Hemophilia A (congenital deficiency of Factor 8) who develop antibodies against the exogenous Factor 8 with which they are treated. Younger patients and patients with more severe hemophilia are more likely to develop these antibodies. Factor 8 inhibitors are also seen in patients with Acquired Hemophilia A, which is an autoimmune disease classically seen in peripartum women and in elderly patients of either sex.

Test Name	Factor 9 Activity
Synonym(s)	
Testing Status	In-House
Routine TAT	Routine TAT: 7 d
Urgent TAT	Urgent TAT: 8 h
STAT TAT	STAT TAT: 4 h
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	<p>The Factor 9 activity is a measure of the functional level of coagulation Factor 9 (Factor IX) in the patient's plasma. Factor 9 is a factor in the intrinsic pathway.</p> <p>Factor activity is measured in percent, where 100% represents the average normal activity in healthy patients. For most coagulation factors in adults, the reference range is approximately 50% to 150%. In adults, a factor level of 50% is considered normal and will not lead to abnormal bleeding or abnormal results on coagulation tests (e.g. aPTT). In children, the reference range will depend on the patient's age.</p> <p>A low level of Factor 9 may be seen in patients with congenital deficiency (so-called Hemophilia B), with vitamin K deficiency, in patients with hepatic failure, or with DIC. Low Factor 9 activity is also seen with coagulation inhibitors, which may be specific to Factor 9 (as in Hemophilia B with inhibitors) or nonspecific inhibitors (such as lupus anticoagulant). In cases where a specific Factor 9 inhibitor is suspected, please contact the Hematopathologist.</p>

Test Name	Factor 9 Inhibitor *EX*
Synonym(s)	Factor 9 Bethesda
Testing Status	Sendaway - HMC
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	Factor 9 inhibitors are seen most commonly in patients with Hemophilia B (congenital deficiency of Factor 9) who develop antibodies against the exogenous Factor 9 with which they are treated. Younger patients and patients with more severe hemophilia are more likely to develop these antibodies.

Test Name	Factor V Leiden *EX*
Synonym(s)	
Testing Status	Sendaway - HMC
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Map EDTA 1/2y-150y: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	HMC
Clinical Information	<p>Factor 5 Leiden (abbreviated F5L or FVL) is the most common inherited prothrombotic disorder.</p> <p>In normal individual, activated Protein C (aided by Protein S) cleaves Factor 5 and Factor 8; this inhibits clot formation. In patients with F5L, however, the mutant Factor 5 resists this cleavage. Therefore this mutation leads to an increased clotting tendency. The F5L mutation is the most important cause of "activated protein C resistance".</p> <p>F5L is implicated primarily in deep venous thrombosis and pulmonary embolism, rather than arterial thrombosis. Other venous thromboses (e.g. cerebral, mesenteric) are also reasonably common in this condition.</p>

Test Name	Fibrinogen Activity
Synonym(s)	Fbg, Fg
Testing Status	In-House
Routine TAT	Routine TAT: 4 h
Urgent TAT	Urgent TAT: 1 h
STAT TAT	STAT TAT: 30 min
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	<p>Fibrinogen (Factor 1) is a factor in the common pathway. It is converted by thrombin (activated factor 2) into fibrin monomers, which are in turn linked by Factor 13a into fibrin polymers. These fibrin polymers form the stable clot which is the end result of the coagulation cascade.</p> <p>This measurement of the fibrinogen level is an activity measurement. A low level of fibrinogen can be caused by acquired or inherited fibrinogen deficiency, or by dysfunctional fibrinogen (dysfibrinogenemia).</p> <p>Fibrinogen deficiency is most commonly caused by excessive consumption, as in D.I.C. . Reduced fibrinogen production is less common, and may be inherited or acquired (e.g. end-stage hepatic failure).</p>

Test Name	Fibrinogen Antigen *EX* \$\$
Synonym(s)	
Testing Status	Sendaway
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	

Test Name	Glucose-6-PD Quantitative *EX*
Synonym(s)	
Testing Status	Sendaway - HMC
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: EDTA, Map EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	Glucose-6-PD Screen \$
Synonym(s)	G6PD screen
Testing Status	In-House
Routine TAT	Routine TAT: 3 d
Urgent TAT	Urgent TAT: 24h
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Map EDTA 1/2y-150y: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	Heinz Body Stain *EX*
Synonym(s)	
Testing Status	Sendaway - HMC
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Map EDTA 1/2y-150y: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	Hematopathologist's Review §
Synonym(s)	Blood Film Review, Peripheral Smear Review
Testing Status	In-House
Routine TAT	Routine TAT: One working day (the work week is usually considered Sunday to Thursday)
Urgent TAT	Urgent TAT: 2 h
STAT TAT	STAT TAT: 1 h
Specimen Type(s)	Blood
Container(s)	0-1/2y: Map EDTA 1/2y-150y: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	<p>The hematopathologist peripheral smear review is performed automatically in the lab for abnormal CBC specimens which meet certain criteria, whether or not the smear review has been ordered by the clinician. If the smear review is separately ordered by the clinician, then the hematopathologist will report on the blood smear morphology whether or not the CBC is abnormal. This test should be ordered when the differential diagnosis includes undiagnosed clinically significant blood cell diseases, including hemolysis, leukemia, sickle cell disease, platelet function disorders, and so on.</p>

Test Name	Hemoglobin Variant Investigation with Reflex Test
Synonym(s)	Hb A2, Hb Electrophoresis, Hb F, Hb S
Testing Status	In-House
Routine TAT	Routine TAT: 2 weeks
Urgent TAT	Urgent TAT: 24h
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Map EDTA 1/2y-150y: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	CBC will be added to this test if it has not already been recently performed. In addition Gel electrophoresis, sickle solubility testing, or Hb H stain may be added to this test if the results of HPLC/CBC are suggestive of a variant hemoglobin, sickle cell, or severe alpha thalassemia (respectively).

Test Name	Heparin PF4 Antibody *EX*
Synonym(s)	HIT Screen, PF4 Antibody
Testing Status	Sendaway - HMC
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Micro Plain 1/2y-150y: Plain
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	JAK2 V617F Mutation *EX*
Synonym(s)	
Testing Status	Sendaway - HMC
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	HMC
Clinical Information	

Test Name	Lupus Anticoagulant *EX*
Synonym(s)	
Testing Status	Sendaway - HMC
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	<p>"Lupus anticoagulant" refers to a family of antiphospholipid and antiphosphoprotein autoantibodies which interfere with coagulation testing in the laboratory (i.e. they act in vitro as anticoagulants). In the patient, they do not usually act as anticoagulants: in adults they frequently have a prothrombotic effect, while in children they generally are clinically insignificant. These autoantibodies are often seen in patients with autoimmune diagnoses, such as lupus, but may be seen in other clinical situations such as following a viral infection (particularly in children).</p> <p>This test relies on a clotting assay called the Dilute Russell Viper Venom Time (DRVVT), which is particularly sensitive to the presence of lupus anticoagulant, as well as the aPTT which is somewhat less sensitive. The test is not 100% sensitive, so not all lupus anticoagulants will be identified by this method.</p> <p>Furthermore, the test does not indicate the clinical severity of the antibody in the patient: it only reveals the presence of the antibody. Clinical correlation is required.</p>

Test Name	Malaria Screen with Reflex Test
Synonym(s)	Thick and Thin Smear
Testing Status	In-House
Routine TAT	8 hours
Urgent TAT	2 hours
STAT TAT	1 hour
Specimen Type(s)	Blood
Container(s)	0-1/2y: Map EDTA 1/2y-150y: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	In positive cases, testing will be added (CBC, reticulocytes, G6PD screen) to help guide treatment decisions in avoiding oxidative hemolysis.

Test Name	Manual Diff-Count
Synonym(s)	
Testing Status	In-House
Routine TAT	24 hours
Urgent TAT	8 hours
STAT TAT	2 hours
Specimen Type(s)	Blood
Container(s)	0-1/2y: Map EDTA 1/2y-150y: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	Mononucleosis Screen
Synonym(s)	Glandular Fever
Testing Status	In-House
Routine TAT	Routine TAT: 4 h
Urgent TAT	Urgent TAT: 2 h
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Map EDTA 1/2y-150y: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	Morphology
Synonym(s)	
Testing Status	In-House
Routine TAT	24 hours
Urgent TAT	8 hours
STAT TAT	2 hours
Specimen Type(s)	Blood
Container(s)	0-1/2y: Map EDTA 1/2y-150y: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	MTHFR *EX*
Synonym(s)	
Testing Status	Sendaway
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Map EDTA 1/2y-150y: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	HMC
Clinical Information	

Test Name	Plasminogen Activator Inhibitor *EX* \$\$
Synonym(s)	
Testing Status	Sendaway - Mayo
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	

Test Name	Plasminogen Assay *EX* \$
Synonym(s)	
Testing Status	Sendaway
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	

Test Name	Platelet Function Test – PFA200 (In Vitro Bleeding Time)
Synonym(s)	PFA
Testing Status	In House
Routine TAT	1 working day
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	<p>Two tubes 1.8mL Citrate Blood sample filled up to the mark on the tube label. (Blue top tube, 3.2% Citrate)</p> <p>In case of high hematocrit (>55%) contact the lab before extracting blood for all coagulation testing because special tube(s) will be provided.</p>
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	<ul style="list-style-type: none"> You must contact the Hematology-Coagulation Lab (Ext. 32961) before collecting the specimen as the sample has 4 hours validity. Do not centrifuge
Patient Preparation	<ul style="list-style-type: none"> Patient must avoid aspirin, all NSAID and antiplatelet drugs for 7-10 days prior to collection. Patients must refrain from eating chocolate, triglyceride, caffeine, garlic, ginger, purple grape juice, tomato, wine, green tea, berries, turmeric, vitamin E and ginkgo biloba supplements for 8-10 hours prior to the blood collection as these can interfere with test results.
Clinical Information	

Test Name	Platelet Glycoproteins CD41/CD61
Synonym(s)	Platelet Glycoproteins CD41/CD61
Testing Status	In House
Routine TAT	2 working days
Urgent TAT	N/A
STAT TAT	N/A
Specimen Type(s)	Peripheral Blood
Container(s)	<ul style="list-style-type: none"> • EDTA <p>Please contact duty Hematopathologist or Hematology Clinical Scientist in advance to arrange this test.</p> <p>Test performed Sunday – Thursday between 7am – 2pm</p>
Collection volume	<ul style="list-style-type: none"> • 0.5-1 ml EDTA sample.
Special Handling	<ul style="list-style-type: none"> • For requests over the WEEKEND please notify the hematopathologist or clinical scientist.
Patient Preparation	<ul style="list-style-type: none"> • N/A
Clinical Information	For investigation of Inherited Platelet disorders

Test Name	Protein C Activity
Synonym(s)	
Testing Status	In-House
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	<p>Protein C is a vitamin K dependent enzyme which (when activated, and with the assistance of Protein S) acts in an antithrombotic manner: it cleaves Factor 5, thereby opposing the coagulation cascade.</p> <p>If Protein C activity is reduced, the patient is somewhat more likely to clot. Protein C deficiency is one of the more common inherited causes of venous thromboembolism, along with Factor 5 Leiden, Prothrombin gene mutation, Protein S deficiency, and Antithrombin deficiency. Most deficiencies are mild, and the corresponding increase in thrombotic risk is mild. Rarely a newborn will have a severe homozygous mutation and will present with neonatal purpura fulminans.</p> <p>Protein C activity may also be reduced in various acquired states, including liver failure, vitamin K deficiency, and sepsis.</p>

Test Name	Protein C Antigen
Synonym(s)	
Testing Status	In-House
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	

Test Name	Protein S Activity *EX* \$\$
Synonym(s)	
Testing Status	Sendaway
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	<p>Protein S is a vitamin K dependent enzyme which (working together with activated Protein C, aPC) acts in an antithrombotic manner. Protein S is a cofactor for aPC-mediated cleavage of Factor 5, thereby opposing the coagulation cascade.</p> <p>If Protein S activity is reduced, the patient is somewhat more likely to clot. Protein S deficiency is one of the more common inherited causes of venous thromboembolism, along with Factor 5 Leiden, Prothrombin gene mutation, Protein C deficiency, and Antithrombin deficiency.</p> <p>Protein S activity may also be reduced in various acquired states, including pregnancy and with oral contraceptive use. It is also often reduced in patients with liver failure, vitamin K deficiency, D.I.C., H.I.V., and nephrotic syndrome.</p>

Test Name	Protein S Antigen - Free
Synonym(s)	
Testing Status	In-House
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	

Test Name	Prothrombin Gene Mutation *EX* \$
Synonym(s)	G20210A
Testing Status	Sendaway - Mayo
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Map EDTA 1/2y-150y: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	HMC
Clinical Information	

Test Name	Prothrombin Time with Reflex Test
Synonym(s)	INR, PT
Testing Status	In-House
Routine TAT	Routine TAT: 4 h
Urgent TAT	Urgent TAT: 1 h
STAT TAT	STAT TAT: 30 min
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	Fibrinogen and APTT may be added if there is unexplained prolongation of INR

Test Name	PT Mixing Study
Synonym(s)	
Testing Status	In-House
Routine TAT	8 hours
Urgent TAT	4 hours
STAT TAT	2 hours
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	<p>In a patient with a prolonged PT, the PT mixing study is used to determine the mechanism for this prolongation: factor deficiency (e.g. a deficiency of factor 7, 10, 5, 2, or 1) or inhibitor (e.g. due to heparin or lupus anticoagulant). For the mixing study to work, the patient's PT must be at least moderately prolonged: with mildly prolonged aPTTs the mixing study cannot be interpreted. In the mixing study, plasma from the patient is mixed 50/50 with plasma from a normal person. Then we compare the PT from the patient with the PT from the mixed patient/normal plasma. If mixing "corrects" the patient's PT back to normal, then the patient's prolongation is likely due to a factor deficiency (which the addition of normal plasma has corrected). If mixing does not "correct" the patient's prolonged PT, then the prolongation is likely due to an inhibitor (such as heparin or a lupus anticoagulant).</p> <p>The mixing study is a screening tool only. It does not provide a final diagnosis, and some complex patients may give atypical mixing study results. Mixing studies are reflex ordered within the laboratory and cannot be ordered directly from PowerChart.</p>

Test Name	PT Mixing Study-CareSet
Synonym(s)	
Testing Status	In House
Routine TAT	8 hours
Urgent TAT	4 hours
STAT TAT	2 hours
Specimen Type(s)	
Container(s)	
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	Pyruvate Kinase Quantitative *EX* \$
Synonym(s)	
Testing Status	Sendaway
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Map EDTA 1/2y-150y: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	Pyruvate kinase screen *EX* \$\$\$
Synonym(s)	PK screen
Testing Status	Sendaway
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Map EDTA 1/2y-150y: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	RBC membrane evaluation
Synonym(s)	EMA, RBC membrane evaluation
Testing Status	In House
Routine TAT	2 working days
Urgent TAT	N/A
STAT TAT	N/A
Specimen Type(s)	Peripheral Blood
Container(s)	<ul style="list-style-type: none"> • EDTA
Collection volume	<ul style="list-style-type: none"> • 1-2 ml EDTA sample.
Special Handling	<ul style="list-style-type: none"> • Please contact duty Hematopathologist or Hematology Clinical Scientist in advance to arrange this test.
Patient Preparation	<ul style="list-style-type: none"> • N/A
Clinical Information	For investigation of RBC membrane defects

Test Name	Reticulocyte Count
Synonym(s)	
Testing Status	In-House
Routine TAT	Routine TAT: 8 h
Urgent TAT	
STAT TAT	
Specimen Type(s)	Blood
Container(s)	0-1/2y: Map EDTA 1/2y-150y: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	<p>Reticulocytes are immature red blood cells (RBCs) which may be differentiated from mature RBCs because they contain excess RNA. It usually takes approximately 1 day in the peripheral blood for a reticulocyte to lose its RNA and become a fully mature RBC. Under normal circumstances, approximately 1% of a patient's RBCs are reticulocytes.</p> <p>The reticulocyte count is a measure of how well the bone marrow is responding to anemia. In a patient with anemia, an elevated reticulocyte count means the marrow is responding appropriately, and the anemia is therefore likely due to blood loss or hemolysis. If an anemic patient has a low or normal reticulocyte count, then the anemia may be due instead to impaired RBC production in the bone marrow.</p> <p>Note that it can take up to 24h for an appropriate reticulocyte response to occur in an acutely anemic patient. For assistance in interpreting reticulocyte count results, please contact the lab.</p>

Test Name	Sickle Cell Solubility Test
Synonym(s)	Hemoglobin S Solubility
Testing Status	In-House
Routine TAT	8 hours
Urgent TAT	2 hours
STAT TAT	30 minutes
Specimen Type(s)	Blood
Container(s)	0-1/2y: Map EDTA 1/2y-150y: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	Thrombin Time *EX*
Synonym(s)	TT
Testing Status	Sendaway - HMC
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	

Test Name	von Willebrand Factor Multimer Assay *EX* \$\$
Synonym(s)	
Testing Status	Sendaway - Mayo
Routine TAT	2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Fill to line
Clinical Information	

Test Name	von Willebrand Panel
Synonym(s)	vWF
Testing Status	In-House
Routine TAT	Routine TAT: 7 d
Urgent TAT	Urgent TAT: 8 h
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: Citrate 1/2y-150y: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Deliver in 30 min
Clinical Information	<p>von Willebrand disease (VWD) is the most common inherited bleeding disorder, affecting approximately 1% of individuals worldwide. It leads to a bleeding tendency which may vary from trivial to severe.</p> <p>In VWD, the patient is deficient in von Willebrand factor (VWF), or has a dysfunctional VWF.</p> <p>In normal patients, VWF cross-links platelets to exposed subendothelial collagen, thereby promoting the formation of the platelet plug at the site of a vascular injury. VWF also protects circulating Factor 8 from proteolytic degradation. In the absence of normal levels of VWF, the patient's ability to form the platelet plug is impaired, and levels of Factor 8 may be reduced.</p> <p>The von Willebrand panel includes a measurement of VWF activity and a measurement of the level of the VWF protein in the blood. Rarely a more elaborate assessment of VWF (the "VWF multimer assay") will also be performed, only if necessary.</p>

Flow Cytometry

Test Name	ALPS Panel
Synonym(s)	Autoimmune Lymphoproliferative Syndrome
Testing Location (if not Sidra)	
Routine TAT	7 days
Urgent TAT	N/A
STAT TAT	N/A
Specimen Type(s)	Peripheral Blood
Container(s)	0-150 years: EDTA container (purple top)
Collection volume	1-2mL Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	<ul style="list-style-type: none"> • Please note samples are accepted from Sunday to Thurs before 10 am for this test. • Transport the sample immediately at room temperature after collection.
Clinical Information	This test measures circulating double negative T-cells (DNTs) that express CD3 but lack CD4 and CD8. These double negative T-cells can either express $\alpha\beta$ T-cell receptor isoform or $\gamma\delta$ receptor isoform. Patients with ALPS have increased circulating double negative $\alpha\beta$ -T cells whilst expansion of double negative $\gamma\delta$ -T cells may be seen in other conditions of inflammatory or autoimmune origin.

Test Name	B-cell Panel
Synonym(s)	B cell Memory panel
Testing Location (if not Sidra)	
Routine TAT	7 days
Urgent TAT	N/A
STAT TAT	N/A
Specimen Type(s)	Peripheral Blood
Container(s)	0-150 years: EDTA container (purple top)
Collection volume	1-2mL Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	<ul style="list-style-type: none"> • Please note samples are accepted from Sunday to Thurs before 10 am for this test. • Transport the sample immediately at room temperature after collection. • Lymphocyte subsets will be added routinely to all requests, unless already performed within preceding 7 days.
Clinical Information	Flow cytometry assay to examine the naïve and memory B-cell-populations. Clinical utility in assessment of suspected immunodeficiency syndromes such as common variable immunodeficiency disorder (CVID). Can help in the evaluation of primary vs secondary antibody deficiency.

Test Name	CD45 RA RO
Synonym(s)	CD45 RA RO, naïve and memory T cells
Testing Location (if not Sidra)	
Routine TAT	7 days
Urgent TAT	N/A
STAT TAT	N/A
Specimen Type(s)	Peripheral Blood
Container(s)	0-150 years: EDTA container (purple top)
Collection volume	1-2mL Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	<ul style="list-style-type: none"> • Please note samples are accepted from Sunday to Thurs before 10 am for this test. <p style="text-align: center;">Transport the sample immediately at room temperature after collection.</p> <ul style="list-style-type: none"> • Lymphocyte subsets will be added routinely to all requests, unless already performed within preceding 7 days.
Clinical Information	Flow cytometry assay to examine the naïve and memory T-cell populations. Clinical utility in assessment of suspected SCID/leaky SCID/Omenn syndrome and late onset combined immunodeficiency (LOCID).

Test Name	Leucocyte Adhesion Deficiency Screen *EX*
Synonym(s)	LAD Screen, CD11b, CD18
Testing Location (if not Sidra)	HMC
Routine TAT	2 - 4 weeks
Urgent TAT	N/A
STAT TAT	N/A
Specimen Type(s)	Peripheral Blood
Container(s)	0-1/2y: Map EDTA 1/2y-150y: EDTA
Collection volume	3mL. Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	<ul style="list-style-type: none"> • Please note samples are accepted from Sunday to Thursday before 10 am for this test. • Date and time of draw should be indicated. • Transport the sample immediately at room temperature after collection. • Please note a fresh control blood from a normal healthy subject is also required (Mother or Father).
Clinical Information	Please refer to HMC Lab Guide

Test Name	Lymphocyte Proliferation Assay (LPA)
Synonym(s)	T cell proliferation, Lymphocyte function
Testing Location (if not Sidra)	HMC (Immunology Flow Cytometry)
Routine TAT	10-14 days
Urgent TAT	N/A
STAT TAT	N/A
Specimen Type(s)	<p>Patient: Lithium Heparin anti-coagulated blood sample Parents: Lithium Heparin anti-coagulated blood from each parent</p> <p>Please note: HMC require control samples from both parents</p>
Container(s)	0-150 years: Lithium Heparin container(s)
Collection volume	>4 months age: ≥6 mL Lithium Heparin anti-coagulated blood <4 months age: ≥4 mL Lithium Heparin anti-coagulated blood
Special Handling	<p>Do NOT collect samples before receiving approval from Sidra Immunology, as the date needs to be pre-arranged by Sidra Pathology with the HMC flow cytometry lab.</p> <p>Sidra physician/nurse to call or email Immunologist (7794 6782 mkarim@sidra.org) or Senior Immunology Technologists (4003 2960 Bouchra Cheaib (23837) bcheaib@sidra.org (40032960)/ Muneera Naseer Ahmad (25357) mnaseerahmad@sidra.org (40032960)</p> <p>The parents (providing control samples) should preferably have a Sidra MRN, or alternately photocopies of the control's QID and HC card should be sent with the blood samples</p>
Clinical Information	Please refer to HMC Lab Guide

Test Name	Lymphocyte Subsets
Synonym(s)	B and T Cell Subsets
Testing Location (if not Sidra)	
Routine TAT	5 days
Urgent TAT	N/A
STAT TAT	N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	<ul style="list-style-type: none"> • Please note samples are accepted from Sunday to Thurs before 10 am for this test. • Transport the sample immediately at room temperature after collection.
Clinical Information	CBC will be added to this test if it has not already been recently performed.

Test Name	Neutrophil Function with Reflex Test
Synonym(s)	Neutrophil Oxidative Burst; Phagoburst; DHR
Testing Location (if not Sidra)	
Routine TAT	Routine TAT: 4 days
Urgent TAT	Urgent TAT: 8 h
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	<ul style="list-style-type: none"> • Please contact Immunology in advance at ext. 32960 or 32961 to provide clinical background. • Please note samples are accepted only on Tuesday before 11am for this test. • The sample must be delivered to the lab (within 30 min from venepuncture) by the porter rather than PTS.
Clinical Information	<p>Neutrophil oxidative burst function is measured by flow cytometry. Measurement of the neutrophil respiratory burst is used to identify patients with Chronic Granulomatous Disease (CGD) and carriers of this condition. CGD is an inherited disorder characterized by recurrent bacterial and fungal infections, formation of chronic granulomas and poor wound healing. Patients with CGD have mutations which affect the NADPH subunits resulting in defective superoxide generation and intracellular killing.</p> <p>Please note: Myeloperoxidase is added if the neutrophil function is reduced but not absent. CBC may be added if not already requested in order to aid interpretation.</p>

Test Name	Oncology Flow Cytometry with Reflex
Synonym(s)	Onc Flow
Testing Location (if not Sidra)	
Routine TAT	2 working days
Urgent TAT	Preliminary report might be released within 8 hours for acute leukemia
STAT TAT	N/A
Specimen Type(s)	Blood or Bone marrow
Container(s)	EDTA On rare occasions, CSF or other body fluids may be processed. Please discuss with duty Hematopathologist or Clinical Scientist before collection
Collection volume	1 – 2mL EDTA
Special Handling	For requests over the WEEKEND please notify the Hematopathologist or Clinical Scientist.
Clinical Information	For investigation of acute leukemia. DNA index and G6PD screen may be added if Acute Leukemia is identified.

Immunology

Test Name	Acetylcholine Receptor Binding Antibody *EX* \$
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Routine TAT	Sendaway: up to 2 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	MML
Clinical Information	

Reference Intervals							
Age From	Age To	Sex	Lower Limit	Upper Limit	Units	Critical Low	Critical High
Please refer to Mayo Lab Guide							

Test Name	ADAMTS13 Activity and Inhibitor *EX* \$\$
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Routine TAT	Sendaway: up to 2 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: Citrate
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	MML
Clinical Information	

Test Name	Adrenal Antibodies *EX* \$
Synonym(s)	21 Hydroxylase Antibodies
Testing Location (if not Sidra)	Mayo
Routine TAT	Sendaway: 2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	MML
Clinical Information	

Test Name	Allergen
Synonym(s)	
Testing Location (if not Sidra)	Dependent on allergen being tested
Routine TAT	In House: 7 days Sendaway: up to 2 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	Allergen-specific IgE tests are listed in Powerchart. If the allergen required is not listed, order "Allergen, Other" and specify your request in "Order Comments."

Test Name	Antineutrophil Cytoplasmic Antibody (ANCA)
Synonym(s)	c-ANCA (PR3), p-ANCA (MPO)
Testing Location (if not Sidra)	
Routine TAT	7 Working Days
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	Please note MPO and PR3 antibodies will be performed instead of Immunofluorescence test. Please call the Laboratory if require urgent ANCA testing.

Test Name	Anti-Beta 2 Glycoprotein Antibodies
Synonym(s)	Beta 2 glycoprotein IgG/IgM
Testing Location (if not Sidra)	
Routine TAT	2 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: SST
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	Anti-Cyclic Citrullinated Peptide Antibody *EX*
Synonym(s)	Anti-CCP
Testing Location (if not Sidra)	HMC
Routine TAT	Sendaway: up to 2 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	HMC
Clinical Information	

Test Name	Anti-Enterocyte Antibodies *EX* \$\$\$
Synonym(s)	Anti-Goblet Cell Antibody
Testing Location (if not Sidra)	Mayo
Routine TAT	6-10 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	MML
Clinical Information	

Test Name	Anti-Gastric-Parietal Cell Ab *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Routine TAT	Sendaway: up to 2 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	HMC
Clinical Information	

Test Name	Antiglomerular Basement Membrane Antibody
Synonym(s)	Anti-GBM antibody
Testing Location (if not Sidra)	
Routine TAT	7 Working Days
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	Please call the Laboratory if require urgent testing.

Test Name	Anti-IgA Antibody *EX* \$\$
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Routine TAT	Sendaway: 2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	MML
Clinical Information	

Test Name	Anti-LKM *EX*
Synonym(s)	LKM Antibodies
Testing Location (if not Sidra)	HMC
Routine TAT	Sendaway: up to 2 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-2y: Micro Plain 2y-150y: Plain
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	HMC
Clinical Information	

Test Name	Antimitochondrial Antibody *EX*
Synonym(s)	Mitochondrial Antibody
Testing Location (if not Sidra)	HMC
Routine TAT	Sendaway: up to 2 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	HMC
Clinical Information	

Test Name	Antinuclear Antibody Profile
Synonym(s)	ANA
Testing Location (if not Sidra)	
Routine TAT	7 Working Days
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: SST
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	Please note samples with Equivocal ANA results will be sent to HMC for Immunofluorescence test.

Test Name	Anti-Smooth Muscle Ab *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Routine TAT	Sendaway: up to 2 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	HMC
Clinical Information	

Test Name	Antistreptolysin O Titre *EX*
Synonym(s)	ASO
Testing Location (if not Sidra)	HMC
Routine TAT	Sendaway: up to 2 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	HMC
Clinical Information	

Test Name	Auto-Immune Encephalitis Evaluation *EX* \$\$
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Routine TAT	Sendaway: 2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	MML
Clinical Information	

Test Name	C3/C4 Complement
Synonym(s)	
Testing Location (if not Sidra)	
Routine TAT	3 days
Urgent TAT	8 hours
STAT TAT	N/A
Specimen Type(s)	Whole blood
Container(s)	0-2 years: Lithium heparin 2-150 years: SST
Collection minimum volume	0-2 years: 0.5 mL 2-150 years: 1 mL
Special Handling	
Clinical Information	

Test Name	Cardiolipin Antibody Profile
Synonym(s)	Anti-Phospholipid Antibodies
Testing Location (if not Sidra)	
Routine TAT	2 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: SST
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	Complement Total *EX* \$\$
Synonym(s)	CH50
Testing Location (if not Sidra)	Mayo
Routine TAT	Sendaway: 2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Send to lab immediately - MML
Clinical Information	

Test Name	Cytoplasmic MPO Expression
Synonym(s)	CytMPO
Testing Location (if not Sidra)	
Routine TAT	4 Working Days
Urgent TAT	N/A
STAT TAT	N/A
Specimen Type(s)	Peripheral Blood
Container(s)	EDTA Note: Testing performed Sunday – Thursday (7:00am – 2:00pm)
Collection volume	0.5-1ml EDTA sample
Special Handling	For requests over the WEEKEND please notify the hematopathologist or clinical scientist.
Patient Preparation	N/A
Clinical Information	Investigation to help distinguish between MPO deficient (gives false positive reduction in DHR assay for CGD) and NADPH oxidase abnormalities (genuine reduction in DJR assay suggestive of CGD).

Test Name	DNA Antibody (Double-stranded)
Synonym(s)	Anti Ds-DNA antibody
Testing Location (if not Sidra)	
Routine TAT	1 week
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: SST
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	ENA Panel
Synonym(s)	Extractable Nuclear Antigen Antibody Panel
Testing Location (if not Sidra)	
Routine TAT	2 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	This test is only performed for Rheumatology. ENA Panel includes testing for: Ro52, Ro60, La, SMS, RNP, Jo-1, Scl-70, Cenp-B, and Ribosomal-P antibodies.

Test Name	Endomysial Antibody IgA *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Routine TAT	Sendaway: up to 2 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	HMC
Clinical Information	Requesting limited to Gastroenterology.

Test Name	Gliadin Peptide Antibody Screen *EX* \$
Synonym(s)	Deamidated Gliadin Peptide Antibodies
Testing Location (if not Sidra)	Mayo
Routine TAT	Sendaway: up to 2 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	MML
Clinical Information	

Test Name	Histone Antibody *EX*
Synonym(s)	
Testing Location (if not Sidra)	Mayo
Routine TAT	Sendaway: up to 2 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	Mayo
Clinical Information	

Test Name	HLA B27 *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Routine TAT	Sendaway: up to 2 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	HMC
Clinical Information	

Test Name	HLA B51 *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Routine TAT	Sendaway: 2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	HMC
Clinical Information	

Test Name	HLA Typing *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Routine TAT	Routine TAT: Sendaway: up to 2 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	HMC
Clinical Information	

Test Name	IgG Subclasses *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Routine TAT	Sendaway: up to 2 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	HMC
Clinical Information	

Test Name	Intrinsic Factor Antibody *EX*
Synonym(s)	
Testing Location (if not Sidra)	HMC
Routine TAT	Routine TAT: Sendaway: 2-4 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	HMC
Clinical Information	

Test Name	Striated Muscle Antibodies *EX*
Synonym(s)	Skeletal Muscle Antibodies
Testing Location (if not Sidra)	Bioscentia
Routine TAT	Sendaway: up to 2 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	Tissue Transglutaminase Antibody (IgA)
Synonym(s)	Anti-TTG, TTG
Testing Location (if not Sidra)	
Routine TAT	7 days
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-2y: Micro SST 2y-150y: SST
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	This order is only for IgA-TTG. Please call the Laboratory if require further assistance.

Test Name	Total IgE
Synonym(s)	
Testing Location (if not Sidra)	
Routine TAT	7 days
Urgent TAT	N/A
STAT TAT	N/A
Specimen Type(s)	Blood
Container(s)	0-2y: SST 2y-150y: SST
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	Type 1 DM Antibody Evaluation *EX*
Synonym(s)	Anti-GAD65 Antibody, Anti-insulin Antibody, Anti-IA2 Antibody, Anti ZnT8 Antibody
Testing Location (if not Sidra)	HMC- Anti-GAD65 Antibody Bioscentia - Anti-insulin Antibody, Anti-IA2 Antibody and Anti ZnT8 Antibody
Routine TAT	Sendaway: up to 2 weeks
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: Plain
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Transfusion Medicine

Test Name	ABORh with Reflex
Synonym(s)	Blood Type
Testing Status	In-House
Routine TAT	Routine TAT: 3 h
Urgent TAT	Urgent TAT: 1 h
STAT TAT	STAT TAT: 30 min
Specimen Type(s)	Blood
Container(s)	0-1/2y: EDTA TML2 1/2y-150y: EDTA TML6
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	The ABO and Rh typing indicates the presence of specific red cell antigens of 2 of the various blood group systems. Determination of blood type and possible presence of antibody in patients who may require future transfusions.
When is Reflex added	<ol style="list-style-type: none"> 1. Antibody Screen: For all hospital inpatients, all Women's service outpatients, and all pre-operative outpatients, Antibody Screen is added in order to reduce delays in transfusion and increase transfusion safety. 2. Direct Antiglobulin Test: For neonates needing red blood cell transfusions—especially those born outside the Sidra—a direct antiglobulin test (DAT) for IgG must be done on the first venous sample. If the DAT is positive, a serologic crossmatch is required before transfusion, even when the antibody screen is negative. This approach ensures clinically significant antibodies are detected and reduces the risk of hemolytic transfusion reactions. 3. Rh K Phenotype/ Antigen Type: For transfusion-dependent patients (e.g., those with thalassemia or sickle cell disease), Rh and Kell (K) phenotype and extended antigen typing are routinely performed. This protocol helps prevent alloimmunization by ensuring that these patients receive Rh- and K antigen–matched red blood cells, rather than just ABO and RhD-compatible units. Matching for these additional antigens significantly reduces the risk of immune reactions and complications from repeated transfusions, improving transfusion safety in hematology/oncology patients.

	<p>4. FMH testing: must be performed on all RhD negative mothers who give birth to newborns with a weak D positive phenotype</p>
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Test Name	ABORh Retype
Synonym(s)	Blood Type
Testing Status	In-House
Routine TAT	Routine TAT: 3 h
Urgent TAT	Urgent TAT: 1 h
STAT TAT	STAT TAT: 45 min
Specimen Type(s)	Blood
Container(s)	0-1/2y: EDTA TML2 1/2y-150y: EDTA TML6
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	The ABO and Rh typing indicates the presence of specific red cell antigens of 2 of the various blood group systems. Determination of blood type and possible presence of antibody in patients who may require future transfusions.

Test Name	Antibody Screen with Reflex
Synonym(s)	
Testing Status	In-House
Routine TAT	Routine TAT: 3 h
Urgent TAT	Urgent TAT: 1 h
STAT TAT	STAT TAT: 45 min
Specimen Type(s)	Blood
Container(s)	0-1/2y: EDTA TML2 1/2y-150y: EDTA TML6
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	<p>Transfusion and pregnancy are the primary means of sensitization to red cell antigens. 3% of the general population possess irregular red cell alloantibodies. Such antibodies may cause hemolytic disease of the newborn or hemolysis of transfused donor red blood cells. Autoantibodies react against the patient's own red cells as well as the majority of cells tested. Autoantibodies can be clinically benign or can hemolyze the patient's own red blood cells, such as in cold agglutinin disease or autoimmune hemolytic anemia.</p>

When is Reflex added	Additional Tests and Their Purposes <ol style="list-style-type: none">1. Antibody Screen by Tube Method (ABS – Tube)2. Antibody Identification: to determine the specific antibody or antibodies present.3. Direct Antiglobulin Test (DAT): to indicates Possible autoimmune hemolysis or transfusion reaction. ✚ Note: Often added if the autocontrol in the antibody panel is positive.4. Antibody Titer: to monitor conditions like hemolytic disease of the fetus/newborn (HDFN) or autoimmune hemolytic anemia (commonly in women’s services).5. Rh and K Phenotype / Antigen Typing: to determines the patient’s red cell antigens (e.g., Rh, Kell systems). This is essential in selecting compatible blood and clarifying antibody specificities.6. Transfusion Medicine Interpretation: When an abnormal laboratory result is detected, a Transfusion Medicine Interpretation is added to provide clinical context and guidance from a transfusion pathologist. The interpretation is added in cases such as:<ul style="list-style-type: none">✚ A positive antibody screen with antibody identification performed✚ Eluate and antibody titer testing✚ ABO discrepancies in blood grouping. <p>This ensures that clinically significant findings are appropriately interpreted and communicated.</p>
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Test Name	Cord Blood Type and DAT with Reflex
Synonym(s)	Fetal Blood Type and DAT, Newborn Blood Group and DAT
Testing Status	In-House
Routine TAT	Routine TAT: 3 h
Urgent TAT	Urgent TAT: 2 h
STAT TAT	STAT TAT: 1 h
Specimen Type(s)	Blood
Container(s)	0-150 years: EDTA TML6
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	
When is Reflex added	<p>Weak D: Please note: If the baby and the mother are both Rh Negative, Weak D testing is added to the Cord Blood Type test.</p> <p>Elution and Rh K Phenotype/ Antigen Type: When Hemolytic Disease of the Fetus and Newborn (HDFN) is suspected and the maternal antibody screen is positive, to determine whether the infant's red blood cells carry the antigen targeted by maternal antibodies. If a venous blood sample from the newborn cannot be obtained, elution testing may be used to identify the antibody attached to the infant's red cells.</p>

Test Name	Crossmatch RBCs
Synonym(s)	
Testing Status	In-House
Routine TAT	Routine TAT: 4 h
Urgent TAT	Urgent TAT: 2 h
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: Blood Product
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	Direct Antiglobulin Test with Reflex
Synonym(s)	Coombs Test, DAT Poly
Testing Status	In-House
Routine TAT	Routine TAT: 4 h
Urgent TAT	Urgent TAT: 2 h
STAT TAT	STAT TAT: 1 h
Specimen Type(s)	Blood
Container(s)	0-1/2y: EDTA TML2 1/2y-150y: EDTA TML6
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	IgG antibody or complement components secondary to the action of IgM antibody may be present on the patient's own RBCs or on transfused RBCs
When is Reflex added	<p>DAT Monospecific: Determining whether RBCs are coated with IgG, C3d, or both helps guide diagnosis and treatment decisions.</p> <p>Eluate: Eluate is made to identify antibodies attached to RBCs when there is evidence of immune-mediated RBC sensitization, either by DAT positivity or auto-control positivity.</p>

Test Name	Fetomaternal Hemorrhage
Synonym(s)	
Testing Status	In-House
Routine TAT	Routine TAT: 3 d
Urgent TAT	Urgent TAT: 24h
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-150 years: EDTA
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	<p>Fetomaternal hemorrhage (FMH) occurs normally throughout pregnancy in minute amounts with increasing volumes during the later stages of gestation. A significant difference in the RBC antigenicity between the fetus and mother can result in allosensitization of the maternal immune system either before or after parturition. The maternal antibodies to the fetal RBC antigens may be clinically silent or cause life-threatening autoimmune sequelae for the current or subsequent pregnancies. Such sensitization can occur with any RBC antigen mismatch, but the highest frequency and profound clinical consequences occur with Rh or D-antigen mismatches. Detection and enumeration of fetal RBCs is an essential part of the management of those patients with FMH treated with Rh immune globulin (RhIG) preparations. The use of RhIG prophylaxis is a universal practice, but dosing amounts and schedules have regional variations. Hence, the sensitivity and specificity of detection assays for FMH is a critical factor in therapeutic efficacy and subsequent clinical outcome.</p>

Test Name	Group and Screen
Synonym(s)	Group and Save, Type and Screen
Testing Status	In-House
Routine TAT	Routine TAT: 3 h
Urgent TAT	Urgent TAT: 1 h
STAT TAT	STAT TAT: 45 min
Specimen Type(s)	
Container(s)	
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	Transfusion Medicine Interpretation
Synonym(s)	
Testing Status	In-House
Routine TAT	Routine TAT: 1-7 d
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	Blood
Container(s)	0-1/2y: EDTA TML2 1/2y-150y: EDTA TML6
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	Transfuse Cryoprecipitate Product
Synonym(s)	
Testing Status	In-House
Routine TAT	Routine TAT: 4 h
Urgent TAT	Urgent TAT: 1 h
STAT TAT	STAT TAT: 30 min
Specimen Type(s)	Blood
Container(s)	0-150 years: Blood Product
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	Transfuse Fetus RBCs Product
Synonym(s)	
Testing Status	In-House
Routine TAT	Routine TAT: 4 h
Urgent TAT	Urgent TAT: 4 h
STAT TAT	STAT TAT: 2 h
Specimen Type(s)	Blood
Container(s)	0-150 years: Blood Product
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	Transfuse MTP Products
Synonym(s)	Transfuse MTP 1, Transfuse MTP 2, Transfuse MTP 3
Testing Status	In-House
Routine TAT	No TAT available
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: 10 min
Specimen Type(s)	Blood
Container(s)	0-150 years: Blood Product
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	Transfuse Plasma Product
Synonym(s)	
Testing Status	In-House
Routine TAT	Routine TAT: 4 h
Urgent TAT	Urgent TAT: 1 h
STAT TAT	STAT TAT: 30 min
Specimen Type(s)	Blood
Container(s)	0-150 years: Blood Product
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	

Test Name	Transfuse Platelets product with Reflex
Synonym(s)	
Testing Status	In-House
Routine TAT	Routine TAT: 4 h
Urgent TAT	Urgent TAT: 1 h
STAT TAT	STAT TAT: 30 min
Specimen Type(s)	Blood
Container(s)	0-150 years: Blood Product
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	
When is Reflex added	Transfusion Medicine Interpretation: A Transfusion Medicine Interpretation will be added to all “Transfuse Platelets” orders when Rh-positive platelets are issued to an Rh-negative female of childbearing age

Test Name	Transfuse RBCs Product with Reflex
Synonym(s)	
Testing Status	In-House
Routine TAT	Routine TAT: 4 h
Urgent TAT	Urgent TAT: 1 h
STAT TAT	STAT TAT: 30 min
Specimen Type(s)	Blood
Container(s)	0-150 years: Blood Product
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	
When is Reflex added	<p>Computer Crossmatch: When the antibody screen is negative, a computer crossmatch will automatically be added to all orders for transfusing RBCs.</p> <p>Serology Crossmatch: A serologic crossmatch will be required for all red blood cell transfusion orders in patients with a positive antibody screen to ensure compatible blood is provided.</p> <p>Transfusion Medicine Interpretation: "Transfusion Medicine Interpretation will be added to orders that have a waiver assigned due to a deviation from requirements."</p>

Test Name	Transfusion Reaction Workup with Reflex
Synonym(s)	
Testing Status	In-House
Routine TAT	5 – 10 Days
Urgent TAT	Urgent TAT: N/A
STAT TAT	STAT TAT: N/A
Specimen Type(s)	
Container(s)	
Collection volume	Please refer to the Non-Micro Collection Quick Reference Guide in APPENDIX B
Special Handling	
Clinical Information	
When is Reflex added	<p>When a hemolytic transfusion reaction (HTR) is suspected, a prompt and comprehensive workup is required. This includes repeat blood typing and serology crossmatching, a direct antiglobulin test (DAT), and antibody identification</p> <p>If a febrile reaction is suspected, a blood culture is performed on the implicated blood unit to check for bacterial contamination, identify potential transfusion-transmitted pathogens, and guide appropriate clinical management.</p>

Division of Microbiology

Microbiology

Test Name	Bacterial Vaginosis Gram Stain
Division	Microbiology and Virology
Synonyms & Care Sets	B Vag Prep, BV Score
Testing Status	In-House
Turn-Around Time	Routine TAT: 24 h Urgent TAT: N/A STAT TAT: N/A
Additional Information	
Specimen Type	Vaginal Swab
Specimen Requirement	Vaginal Swab: ESwab
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Test Name	Blood Component Culture with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 5 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Daily reports. Positive informed immediately Positive cultures will require additional identification and susceptibility tests. Staining and microscopy is part of the routine workup of these samples.
Specimen Type	Blood Unit, Other, Platelets
Specimen Requirement	Anaero BACTEC (Volume: 8 - 10 mL) Aero BACTEC (Volume: 8 - 10 mL)
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	

Test Name	Blood Culture Adult with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 5 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Daily reports. Positive informed immediately Positive cultures will require additional identification and susceptibility tests. Staining and microscopy is part of the routine workup of these samples.
Specimen Type	Blood Broviac, Blood CVC, Blood Peripheral, Blood PICC, Blood Port-A-Cath, Blood Triple Lumen, Hickman Line, Other, Quinton Permcath
Specimen Requirement	Anaero BACTEC (Volume: 8 - 10 mL) Aero BACTEC (Volume: 8 - 10 mL)
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab immediately. Do not refrigerate.

Test Name	Blood Culture Pediatric with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 5 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Daily reports. Positive informed immediately Positive cultures will require additional identification and susceptibility tests. Staining and microscopy is part of the routine workup of these samples.
Specimen Type	Blood Broviac, Blood CVC, Blood Peripheral, Blood PICC, Blood Port-A-Cath, Blood Triple Lumen, Hickman Line, Other, Quinton Permcath
Specimen Requirement	Peds Plus BACTEC (Volume: 1 - 3 mL; Neonates: 0.5 mL)
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab immediately. Do not refrigerate.

Test Name	Body Fluid Culture with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 5 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Daily reports. Positive informed immediately Positive cultures will require additional identification and susceptibility tests. Staining and microscopy is part of the routine workup of these samples. This culture will require additional processing if a sufficient sample is received
Specimen Type	Amniotic Fluid, Ascitic Fluid, Breast Milk, Dialysate Fluid, Other, Pericardial Fluid, Peritoneal Fluid, Pleural Fluid, Synovial Fluid
Specimen Requirement	Sterile Container (Min. Vol.: 1 mL)
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab immediately.

Test Name	Bone Marrow Culture Bottle with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 5 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Daily reports. Positive informed immediately Positive cultures will require additional identification and susceptibility tests. Staining and microscopy is part of the routine workup of these samples.
Specimen Type	Bone Marrow, Other
Specimen Requirement	Aero BACTEC (Min. Vol.: 1 mL)
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab immediately.

Test Name	Brucella Culture with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	Brucella Blood Culture, Brucella Culture Bottle
Testing Status	In-House
Turn-Around Time	Routine TAT: 10 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Daily reports. Positive informed immediately Positive cultures will require additional identification and susceptibility tests. Staining and microscopy is part of the routine workup of these samples.
Specimen Type	Blood, Body Fluid, Bone Marrow, Other, Tissue/Biopsy
Specimen Requirement	Blood: Aero BACTEC (Min. Vol.: 1 mL) Blood: Anaero BACTEC (Min. Vol.: 1 mL) Body Fluid: Aero BACTEC (Min. Vol.: 1 mL) Body Fluid: Anaero BACTEC (Min. Vol.: 1 mL) Bone Marrow: Sterile Container (Min. Vol.: 1 mL) Other: Sterile Container Tissue/Biopsy: Sterile Container
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab immediately.

Test Name	Candida auris Culture with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 2 days Urgent TAT: N/A STAT TAT: N/A
Additional Information	Positive cultures will require additional identification and susceptibility tests.
Specimen Type	Axilla-Groin
Specimen Requirement	Axilla-Groin: ESwab
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Test Name	Catheter Tip Culture with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	Cath Tip Culture, IV Tip Culture
Testing Status	In-House
Turn-Around Time	Routine TAT: 3 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Positive cultures will require additional identification and susceptibility tests.
Specimen Type	CSF Shunt Tip, Other, Umbilical Catheter Tip, Vascular Catheter Tip
Specimen Requirement	Sterile Container
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Test Name	CPO Screen with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 3 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Positive cultures will require additional identification and susceptibility tests.
Specimen Type	Perianal Swab, Rectal Swab, Stool
Specimen Requirement	Perianal Swab: ESwab Rectal Swab: ESwab Stool: Sterile Container (Min. Vol.: 1 mL)
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Test Name	Cryptococcal Antigen Detection *EX*
Division	Microbiology and Virology
Synonyms & Care Sets	
Testing Status	Sendaway
Turn-Around Time	Sendaway: 6-8 weeks Urgent TAT: N/A STAT TAT: N/A
Additional Information	
Specimen Type	CSF, Serum
Specimen Requirement	CSF: CSF Tube (Min. Vol.: 1 mL) Serum: SST (Min. Vol.: 1 mL)
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab immediately.

Test Name	CSF Culture with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	Cerebrospinal Fluid Culture
Testing Status	In-House
Turn-Around Time	Routine TAT: 5 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Daily reports. Positive informed immediately Positive cultures will require additional identification and susceptibility tests. Staining and microscopy is part of the routine workup of these samples. This culture will require additional processing if a sufficient sample is received
Specimen Type	CSF, Other
Specimen Requirement	Sterile Container (Min. Vol.: 1 mL)
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab immediately. Do not refrigerate.

Test Name	Cystic Fibrosis Respiratory Culture with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	CF Culture
Testing Status	In-House
Turn-Around Time	Routine TAT: 5 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Positive cultures will require additional identification and susceptibility tests. Staining and microscopy is part of the routine workup of these samples.
Specimen Type	BAL, Bronchial Biopsy, Bronchial Brush, Bronchial Wash, Nasopharyngeal Swab, Nasopharyngeal Wash, Other, Sinus, Sputum, Sputum Induced, Throat Swab, Transtracheal Aspirate, Transtracheal Biopsy
Specimen Requirement	BAL: Sterile Container (Min. Vol.: 1 mL) Bronchial Biopsy: Sterile Container Bronchial Brush: Sterile Container Bronchial Wash: Sterile Container (Min. Vol.: 1 mL) Nasopharyngeal Swab: ESwab Nasopharyngeal Wash: Sterile Container (Min. Vol.: 1 mL) Other: Eswab/Sterile Container Sinus: Sterile Container (Min. Vol.: 1 mL) Sputum: Sterile Container (Min. Vol.: 1 mL) Sputum Induced: Sterile Container (Min. Vol.: 1 mL) Throat Swab: ESwab Transtracheal Aspirate: Sterile Container (Min. Vol.: 1 mL) Transtracheal Biopsy: Sterile Container
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Test Name	Ear Culture with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 3 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Positive cultures will require additional identification and susceptibility tests. Staining and microscopy is part of the routine workup of these samples.
Specimen Type	Ear Canal, External Ear, Mastoid Sinus, Other, Tympanic Fluid
Specimen Requirement	Ear Canal: ESwab External Ear: ESwab Mastoid Sinus: Eswab/Sterile Container Other: Eswab/Sterile Container Tympanic Fluid: Eswab/Sterile Container
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Test Name	Environmental Culture with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 3 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	
Specimen Type	Other
Specimen Requirement	Eswab/Sterile Container
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Moisten Swabs before sampling. Transport to the lab within 2 hours.

Test Name	Eye Culture with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 3 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Positive cultures will require additional identification and susceptibility tests. Staining and microscopy is part of the routine workup of these samples.
Specimen Type	Anterior Chamber, Conjunctival Swab, Contact Lens, Cornea, Corneal Scraping, Eye Lid, Eye Socket Swab, Eye Swab, Other, Posterior Chamber, Vitreous Fluid
Specimen Requirement	Anterior Chamber: Sterile Container (Min. Vol.: 1 mL) Conjunctival Swab: ESwab Contact Lens: Sterile Container Cornea: Sterile Container Corneal Scraping: Eswab/Sterile Container Eye Lid: ESwab Eye Socket Swab: ESwab Eye Swab: ESwab Other: Eswab/Sterile Container Posterior Chamber: Sterile Container (Min. Vol.: 1 mL) Vitreous Fluid: Eswab/Sterile Container (Min. Vol.: 1 mL)
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Request Media/Plate on Site. Transport to the lab immediately

Test Name	Fungal Culture with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	C Fungal Culture, Calcofluor, KOH
Testing Status	In-House
Turn-Around Time	Routine TAT: 4 weeks Urgent TAT: N/A STAT TAT: N/A
Additional Information	Weekly reports. Positive cultures will require additional identification and susceptibility tests. Staining and microscopy is part of the routine workup of these samples.
Specimen Type	Abdominal Fluid, Amniotic Fluid, BAL, Bronchial Biopsy, Bronchial Brush, Bronchial Wash, Burn Swab, CSF, Cyst Fluid, Ear Swab, Eye, Genital, Mouth Swab, Other, Pericardial Fluid, Peritoneal Fluid, Placenta, Pleural Fluid, Sputum, Synovial Fluid, Throat Swab, Tissu
Specimen Requirement	Abdominal Fluid: Sterile Container (Min. Vol.: 1 mL) Amniotic Fluid: Sterile Container (Min. Vol.: 1 mL) BAL: Sterile Container (Min. Vol.: 1 mL) Bronchial Biopsy: Sterile Container Bronchial Brush: Sterile Container Bronchial Wash: Sterile Container (Min. Vol.: 1 mL) Burn Swab: ESwab CSF: Sterile Container (Min. Vol.: 1 mL) Cyst Fluid: Sterile Container (Min. Vol.: 1 mL) Ear Swab: ESwab Eye: Eswab/Sterile Container Genital: ESwab Mouth Swab: ESwab Other: Eswab/Sterile Container Pericardial Fluid: Sterile Container (Min. Vol.: 1 mL) Peritoneal Fluid: Sterile Container (Min. Vol.: 1 mL) Placenta: Eswab/Sterile Container Pleural Fluid: Sterile Container (Min. Vol.: 1 mL) Sputum: Sterile Container (Min. Vol.: 1 mL) Synovial Fluid: Sterile Container (Min. Vol.: 1 mL) Throat Swab: ESwab Tissue/Biopsy: Sterile Container TPN Fluid (for M. furfur): Sterile Container (Min. Vol.: 1 mL) Tracheal Asp: Sterile Container (Min. Vol.: 1 mL) Urine: Sterile Container (Min. Vol.: 1 mL)
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Test Name	Fungal Culture Blood with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 4 weeks Urgent TAT: N/A STAT TAT: N/A
Additional Information	Weekly reports. Positive cultures will require additional identification and susceptibility tests. Staining and microscopy is part of the routine workup of these samples.
Specimen Type	Blood, Bone Marrow, Other
Specimen Requirement	Myco BACTEC (Min. Vol.: 1 mL)
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab immediately. Do not refrigerate.

Test Name	Fungal Culture Skin, Hair, Nails with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 4 weeks Urgent TAT: N/A STAT TAT: N/A
Additional Information	Weekly reports. Positive cultures will require additional identification and susceptibility tests. Staining and microscopy is part of the routine workup of these samples.
Specimen Type	Hair, Nail, Paronychia, Skin
Specimen Requirement	Sterile Container
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Test Name	GC Culture with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	Neisseria Gonorrhoeae Culture
Testing Status	In-House
Turn-Around Time	Routine TAT: 3 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Positive cultures will require additional identification and susceptibility tests. Staining and microscopy is part of the routine workup of these samples.
Specimen Type	Bartholin's Gland, Endocervix, Eye, IUD, Other, Penis, Urethra, Vagina, Vaginal-Anal, Vaginal-Rectal
Specimen Requirement	Bartholin's Gland: ESwab Endocervix: ESwab Eye: ESwab IUD: Sterile Container Other: Eswab/Sterile Container Penis: ESwab Urethra: ESwab Vagina: ESwab Vaginal-Anal: ESwab Vaginal-Rectal: ESwab
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Test Name	Genital Culture with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	Culture Genital
Testing Status	In-House
Turn-Around Time	Routine TAT: 3 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Positive cultures will require additional identification and susceptibility tests. Staining and microscopy is part of the routine workup of these samples.
Specimen Type	Bartholin's Gland, Endocervix, IUD, Other, Penis, Prostatic Secretions, Semen, Ulcer, Urethral swab, Vagina, Vaginal-Anal, Vaginal-Rectal
Specimen Requirement	Bartholin's Gland: Eswab/Sterile Container Endocervix: ESwab IUD: Sterile Container Other: Eswab/Sterile Container Penis: ESwab Prostatic Secretions: Sterile Container (Min. Vol.: 1 mL) Semen: Sterile Container (Min. Vol.: 1 mL) Ulcer: ESwab Urethral swab: ESwab Vagina: ESwab Vaginal-Anal: ESwab Vaginal-Rectal: ESwab
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab immediately

Test Name	Group B Strep Culture with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	GBS Culture
Testing Status	In-House
Turn-Around Time	Routine TAT: 3 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Positive cultures will require additional identification and susceptibility tests.
Specimen Type	Other, Urine, Vaginal-Anal, Vaginal-Rectal
Specimen Requirement	Other: Eswab/Sterile Container Urine: Sterile Container (Min. Vol.: 1 mL) Vaginal-Anal: ESwab Vaginal-Rectal: ESwab
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Test Name	Helicobacter pylori Antigen Stool
Division	Microbiology and Virology
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 24 h Urgent TAT: N/A STAT TAT: N/A
Additional Information	
Specimen Type	Stool
Specimen Requirement	Sterile Container (Min. Vol.: 2 mL)
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Test Name	Insect Identification
Division	Microbiology and Virology
Synonyms & Care Sets	Hashara ID, Lice ID, Scabies ID
Testing Status	In-House
Turn-Around Time	Routine TAT: 24 h Urgent TAT: N/A STAT TAT: N/A
Additional Information	
Specimen Type	Insect, Unknown
Specimen Requirement	Sterile Container
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Test Name	Legionella Culture *EX*
Division	Microbiology and Virology
Synonyms & Care Sets	
Testing Status	Sendaway
Turn-Around Time	Routine TAT: 7 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Positive cultures will require additional identification and susceptibility tests. Staining and microscopy is part of the routine workup of these samples.
Specimen Type	BAL, Bronchial Aspirate, Bronchial Brush, Bronchial Wash, Other, Sputum Induced, Tracheal Aspirate, Transtracheal Aspirate, Urine
Specimen Requirement	BAL: Sterile Container (Min. Vol.: 1 mL) Bronchial Aspirate: Sterile Container (Min. Vol.: 1 mL) Bronchial Brush: Sterile Container Bronchial Wash: Sterile Container (Min. Vol.: 1 mL) Other: Eswab/Sterile Container Sputum Induced: Sterile Container (Min. Vol.: 1 mL) Tracheal Aspirate: Sterile Container (Min. Vol.: 1 mL) Transtracheal Aspirate: Sterile Container (Min. Vol.: 1 mL) Urine: Sterile Container (Min. Vol.: 1 mL)
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Test performed at HMC. Transport to the lab within 2 hours.

Test Name	Legionella Urine Antigen *EX*
Division	Microbiology and Virology
Synonyms & Care Sets	
Testing Status	Sendaway
Turn-Around Time	Routine TAT: 24 h Urgent TAT: N/A STAT TAT: N/A
Additional Information	
Specimen Type	Urine
Specimen Requirement	Sterile Urine Container (Min. Vol.: 0.5 mL)
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Test performed at HMC. Transport to the lab within 2 hours.

Test Name	MRSA Culture with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 3 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Positive cultures will require additional identification and susceptibility tests.
Specimen Type	Axilla, Exit Site, Groin, Nares, Open Wound, Perianal, Rectal, Skin Swab, Throat, Umb
Specimen Requirement	Red top double swab
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Test Name	Occult Blood Stool
Division	Microbiology and Virology
Synonyms & Care Sets	Guaiaac Stool, Hemoccult, Stool Guaiaac, Stool Occult Blood
Testing Status	In-House
Turn-Around Time	Routine TAT: 24 h Urgent TAT: N/A STAT TAT: N/A
Additional Information	
Specimen Type	Stool
Specimen Requirement	Sterile Container (Min. Vol.: 2 mL)
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Test Name	Ova & Parasites with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	O & P
Testing Status	In-House
Turn-Around Time	Routine TAT: 3 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Staining and microscopy is part of the routine workup of these samples
Specimen Type	BAL, Other, Stool, Urine
Specimen Requirement	Sterile Container (Min. Vol.: 1 mL)
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Test Name	Pinworm Prep
Division	Microbiology and Virology
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 24 h Urgent TAT: N/A STAT TAT: N/A
Additional Information	
Specimen Type	Paddle, Scotch Tape
Specimen Requirement	Paddle: Pinworm Paddle Scotch Tape: Scotch Tape
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Test Name	Respiratory Culture with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 3 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Positive cultures will require additional identification and susceptibility tests. Staining and microscopy is part of the routine workup of these samples.
Specimen Type	BAL, Bronchial Aspirate, Bronchial Brush, Bronchial Wash, Nasopharyngeal Swab, Nasopharyngeal Wash, Other, Sinus, Sputum
Specimen Requirement	BAL: Sterile Container (Min. Vol.: 1 mL) Bronchial Aspirate: Sterile Container (Min. Vol.: 1 mL) Bronchial Brush: Sterile Container Bronchial Wash: Sterile Container (Min. Vol.: 1 mL) Nasopharyngeal Swab: ESwab Nasopharyngeal Wash: Sterile Container (Min. Vol.: 1 mL) Other: Eswab/Sterile Container Sinus: Sterile Container (Min. Vol.: 1 mL) Sputum: Sterile Container (Min. Vol.: 1 mL)
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Test Name	Sterility Culture with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	C Sterility Culture
Testing Status	In-House
Turn-Around Time	Routine TAT: 3 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Positive cultures will require additional identification and susceptibility tests. Staining and microscopy is part of the routine workup of these samples.
Specimen Type	Bone Chip, Cornea, Other
Specimen Requirement	Bone Chip: Sterile Container Cornea: Sterile Container Fibrin Sealant: Blood Culture Bottles HPC Apheresis – pre processing: Blood Culture Bottles HPC Apheresis – residual plasma: Blood Culture Bottles HPC CB – pre processing: Blood Culture Bottles HPC CB – residual plasma: Blood Culture Bottles HPC Marrow – pre processing: Blood Culture Bottles HPC Marrow – residual plasma: Blood Culture Bottles MSC Culture: Blood Culture Bottles Plasma Eye drops: Blood Culture Bottles Platelet Rich Fibrin: Blood Culture Bottles Platelet Rich plasma: Blood Culture Bottles Serum Eye Drops: Blood Culture Bottles Other: Eswab/Sterile Container
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Test Name	Stool Culture with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	Fecal Culture
Testing Status	In-House
Turn-Around Time	Routine TAT: 3 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Positive cultures will require additional identification and susceptibility tests.
Specimen Type	Other, Rectal Swab, Stool
Specimen Requirement	Other: Eswab/Sterile Container Rectal Swab: ESwab Stool: Sterile Container (Min. Vol.: 1 mL)
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Test Name	Group A Strep PCR
Division	Microbiology and Virology
Synonyms & Care Sets	Strep A PCR
Testing Status	In-House
Turn-Around Time	STAT TAT: 1 hour
Additional Information	
Specimen Type	Throat Swab
Specimen Requirement	E-swab
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab immediately.

Test Name	Throat Culture with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	Group A Strep Culture
Testing Status	In-House
Turn-Around Time	Routine TAT: 3 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Positive cultures will require additional identification and susceptibility tests.
Specimen Type	Throat Swab
Specimen Requirement	ESwab
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Test Name	Tissue/Biopsy Culture with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 5 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Daily reports. Positive smear/cultures reported as soon as detected. Positive cultures will require additional identification and susceptibility tests. Staining and microscopy is part of the routine workup of these samples. This culture will require additional processing if a sufficient sample is received
Specimen Type	Bone, Brain, Endometrium, Fine Needle Asp, Fistula, Graft, Granuloma, Kidney, Liver, Lung, Lymph Node, Nodule, Other, Peritoneum, Placenta, Sinus, Skin, Sternal Wound, Surgical Swab, Tissue/Biopsy
Specimen Requirement	Bone: Sterile Container Brain: Sterile Container Endometrium: Sterile Container Fine Needle Asp: Sterile Container Fistula: Sterile Container Graft: Sterile Container Granuloma: Sterile Container Kidney: Sterile Container Liver: Sterile Container Lung: Sterile Container Lymph Node: Sterile Container Nodule: Sterile Container Other: Eswab/Sterile Container Peritoneum: Sterile Container Placenta: Sterile Container Sinus: Sterile Container Skin: Sterile Container Sternal Wound: Eswab/Sterile Container Surgical Swab: ESwab Tissue/Biopsy: Sterile Container
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab immediately.

Test Name	Trichomonas Prep
Division	Microbiology and Virology
Synonyms & Care Sets	Wet Prep
Testing Status	In-House
Turn-Around Time	No TAT available Urgent TAT: N/A STAT TAT: 1 h
Additional Information	Stat only
Specimen Type	Vaginal Swab
Specimen Requirement	ESwab
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab immediately.

Test Name	Tuberculosis Culture *EX*
Division	Microbiology and Virology
Synonyms & Care Sets	Acid Fast Bacilli Culture, AFB Culture, Mycobacterial Culture
Testing Status	Sendaway
Turn-Around Time	Sendaway: 6-8 weeks Urgent TAT: N/A STAT TAT: N/A
Additional Information	Positive smear/cultures reported as soon as detected. Positive cultures will require additional identification and susceptibility tests. Staining and microscopy is part of the routine workup of these samples.
Specimen Type	BAL, Bronchial Brush, CSF, Other, Pleural Fluid, Sputum, Synovial, Tissue/Biopsy, Trach Aspirate
Specimen Requirement	BAL: Sterile Container (Min. Vol.: 1 mL) Bronchial Brush: Sterile Container CSF: CSF Tube (Min. Vol.: 1 mL) Other: Sterile Container Pleural Fluid: Sterile Container (Min. Vol.: 1 mL) Sputum: Sterile Container (Min. Vol.: 1 mL) Synovial: Sterile Container (Min. Vol.: 1 mL) Tissue/Biopsy: Sterile Container Trach Aspirate: Sterile Container (Min. Vol.: 1 mL)
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Test performed at HMC. Transport to the lab within 2 hours.

Test Name	Urine Culture with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 3 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Positive cultures will require additional identification and susceptibility tests
Specimen Type	Clean Catch, Cystoscopy, Indwelling Catheter, In-Out Cath, Nephrostomy, Nephrostomy L Kidney, Nephrostomy R Kidney, Pedi-Bag Urine, Suprapubic
Specimen Requirement	Sterile Urine Container (Min. Vol.: 1 mL)
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Test Name	VRE Screen with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 3 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Positive cultures will require additional identification and susceptibility tests.
Specimen Type	Perianal, Rectal Swab, Stool
Specimen Requirement	Perianal: ESwab Rectal Swab: ESwab Stool: Sterile Container (Min. Vol.: 1 mL)
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Test Name	Worm Identification
Division	Microbiology and Virology
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 24 h Urgent TAT: N/A STAT TAT: N/A
Additional Information	
Specimen Type	Unknown, Worm
Specimen Requirement	Sterile Container
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Test Name	Wound Culture with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 5 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	Positive cultures will require additional identification and susceptibility tests Staining and microscopy is part of the routine workup of these samples"
Specimen Type	Abscess Fluid, Abscess Swab, Aspirate Fluid, Bite, Blister, Boil, Burn, Cellulitis, C-section Swab, Decubitus, Drainage, Episiotomy, Eschar Swab, Exit Site Swab, Exudate, Fistula Swab, Incision, Lesion, Other, Pustule, Skin Swab, Suture, Ulcer, Wound Deep
Specimen Requirement	Abscess Fluid: Sterile Container (Min. Vol.: 1 mL) Abscess Swab: ESwab Aspirate Fluid: Sterile Container (Min. Vol.: 1 mL) Bite: ESwab Blister: ESwab Boil: ESwab Burn: ESwab Cellulitis: ESwab C-section Swab: ESwab Decubitus: ESwab Drainage: Sterile Container (Min. Vol.: 1 mL) Episiotomy: ESwab Eschar Swab: ESwab Exit Site Swab: ESwab Exudate: ESwab Fistula Swab: ESwab Incision: ESwab Lesion: ESwab Other: Eswab/Sterile Container Pustule: ESwab Skin Swab: ESwab Suture: ESwab Ulcer: ESwab Wound Deep/Surgical: ESwab Wound Superficial: ESwab
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Test Name	Yeast Culture with Reflex
Division	Microbiology and Virology
Synonyms & Care Sets	Candida Culture
Testing Status	In-House
Turn-Around Time	Routine TAT: 2 weeks Urgent TAT: N/A STAT TAT: N/A
Additional Information	Positive cultures will require additional identification and susceptibility tests
Specimen Type	Genital, Mouth Swab, Skin Swab, Throat Swab, Urine, Vaginal
Specimen Requirement	Genital: ESwab Mouth Swab: ESwab Skin Swab: ESwab Throat Swab: ESwab Urine: Sterile Container (Min. Vol.: 1 mL) Vaginal: ESwab
Additional Collection Instructions	Refer to PRO- O- Collection, Labelling, Handling and Transport of Biological Specimens for Laboratory Testing
Special Handling	Transport to the lab within 2 hours

Molecular Infectious Diseases

Test Name	Adenovirus PCR - Qualitative
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	ADV Qualitative PCR
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-7 d Urgent TAT: 1-4 d STAT TAT: N/A
Additional Information	
Specimen Type	BAL, Blood, Bone Marrow, Bronchial Wash, CSF, Nasopharyngeal Flocked Swab, Nasopharyngeal Wash, Pericardial Fluid, Pleural Fluid, Stool, Throat Gargle, Tissue, Tracheal Aspirate, Tracheal Wash, Urine
Specimen Requirement	BAL: Sterile Container (Min. Vol.: 2 mL) Blood: <2 Years: Map EDTA (Recommended Vol.: 1.0 mL) >2 Years: EDTA (Recommended Vol.: 3.0 mL) Bone Marrow: EDTA (Min. Vol.: 2 mL) Bronchial Wash: Sterile Container (Min. Vol.: 2 mL) CSF: Sterile Container (Min. Vol.: 2 mL) Nasopharyngeal Flocked Swab: Viral Swab Nasopharyngeal Wash: Sterile Container (Min. Vol.: 2 mL) Pericardial Fluid: Sterile Container (Min. Vol.: 2 mL) Pleural Fluid: Sterile Container (Min. Vol.: 2 mL) Stool: Sterile Container (Min. Vol.: 2 mL) Throat Gargle: Sterile Container (Min. Vol.: 2 mL) Tissue: Sterile Container Tracheal Aspirate: Sterile Container (Min. Vol.: 2 mL) Tracheal Wash: Sterile Container (Min. Vol.: 2 mL) Urine: Sterile Container (Min. Vol.: 10 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	Adenovirus PCR - Viral Load
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-7 d Urgent TAT: 1-4 d STAT TAT: N/A
Additional Information	If this test is ordered together with other viral load PCR tests (except HCV and HIV), please collect into a single tube and affix the labels for each test onto the same tube before sending it to the laboratory.
Specimen Type	Blood
Specimen Requirement	Blood: <2 Years: Map EDTA (Recommended Vol.: 1.0 mL) >2 Years: EDTA (Recommended Vol.: 3.0 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	Gastroenteritis PCR Panel
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-4 d Urgent TAT: 24 h STAT TAT: N/A
Additional Information	Gastroenteritis PCR Panel includes: <i>Campylobacter coli/jejuni/lari</i> , <i>Clostridium difficile</i> , <i>Plesiomonas shigelloides</i> , <i>Salmonella</i> spp., <i>Shigella</i> spp./Enteroinvasive <i>E. coli</i> , <i>Yersinia enterocolitica</i> , <i>Vibrio</i> (<i>parahaemolyticus</i> , <i>vulnificus</i> , and <i>cholerae</i>), <i>Vibrio cholera</i> , <i>Enterogaagregative E. coli</i> , <i>Enteropathogenic E. coli</i> , <i>Enterotoxigenic E. coli</i> , <i>Shiga-like toxin-producing E. coli</i> (<i>stx1/stx2</i> / <i>E. coli</i> O157), <i>Cryptosporidium</i> , <i>Cyclospora cayetanensis</i> , <i>Entamoeba histolytica</i> , <i>Giardia lamblia</i> , <i>Adenovirus F40/41</i> , <i>Astrovirus</i> , <i>Norovirus GI/GII</i> , <i>Rotavirus</i> <i>A</i> , <i>Sapovirus (I, II, IV, and V)</i>
Specimen Type	Other, Rectal Swab, Stool
Specimen Requirement	Other: Sterile Container Rectal Swab: ESwab Stool: Sterile Container (Min. Vol.: 2 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	BK Virus PCR - Viral Load
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	BK Polyomavirus PCR - Viral Load, BKV Quant PCR
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-7 d Urgent TAT: 1-4 d STAT TAT: N/A
Additional Information	If this test is ordered together with other viral load PCR tests (except HCV and HIV), please collect into a single tube and affix the labels for each test onto the same tube before sending it to the laboratory.
Specimen Type	Blood, Urine
Specimen Requirement	Blood: <2 Years: Map EDTA (Recommended Vol.: 1.0 mL) >2 Years: EDTA (Recommended Vol.: 3.0 mL) Urine: Sterile Container (Min. Vol.: 5 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	Blood Viral PCR Panel
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	Adenovirus PCR, CMV PCR, EBV PCR, Enterovirus PCR, Parvovirus B19 PCR, HSV 1/2 PCR, VZV PCR, Parechovirus PCR, HHV 6 PCR
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-4 d Urgent TAT: 1 d STAT TAT: N/A
Additional Information	Blood Viral Panel detects the following viruses in clinical samples: Adenoviruses, Cytomegalovirus, Epstein-Barr Virus, Enteroviruses, Parvovirus (B19), Herpes simplex virus 1 and 2, Varicella-zoster virus, Parechovirus and Human Herpesvirus 6
Specimen Type	EDTA Blood (Plasma), CSF, Serum
Specimen Requirement	EDTA Blood (plasma) – Minimum volume is 200 µL (plasma) Serum - Minimum volume is 200 µL CSF – Minimum volume is 200 µL
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	Bordetella pertussis PCR
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-4 d Urgent TAT: 24 h STAT TAT: N/A
Additional Information	
Specimen Type	Bronchial Wash, Nasopharyngeal Flocked Swab, Nasopharyngeal Aspirate, Nasopharyngeal Swab, Nasopharyngeal Wash, Other, Throat Gargle, Throat Swab, Tracheal Aspirate, Tracheal Wash
Specimen Requirement	Bronchial Wash: Sterile Container (Min. Vol.: 2 mL) Nasopharyngeal Flocked Swab: Viral Swab Nasopharyngeal Aspirate: Sterile Container (Min. Vol.: 2 mL) Nasopharyngeal Swab: Viral Swab Nasopharyngeal Wash: Sterile Container (Min. Vol.: 2 mL) Other: Sterile Container Throat Gargle: Sterile Container (Min. Vol.: 2 mL) Throat Swab: ESwab Tracheal Aspirate: Sterile Container (Min. Vol.: 2 mL) Tracheal Wash: Sterile Container (Min. Vol.: 2 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	Brucella PCR
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-4 d Urgent TAT: 24 h STAT TAT: N/A
Additional Information	
Specimen Type	Blood, Urine
Specimen Requirement	Blood: <2 Years: Map EDTA (Recommended Vol.: 1.0 mL) >2 Years: EDTA (Recommended Vol.: 3.0 mL) Urine: Sterile Container (Min. Vol.: 5 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	Chlamydia - Gonorrhoea PCR
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	CT - NG PCR
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-4 d Urgent TAT: 4 h STAT TAT: 2 h
Additional Information	
Specimen Type	Endocervical Swab, Other, Rectal Swab
Specimen Requirement	Endocervical Swab: CT/NG Swab Other: CT/NG Swab Rectal Swab: CT/NG Swab
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	Clostridium difficile PCR
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	<i>C. difficile</i> PCR
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-4 d Urgent TAT: 4 h STAT TAT: 2 h
Additional Information	
Specimen Type	Stool
Specimen Requirement	Stool: Sterile Container (Min. Vol.: 2 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	CMV PCR - Qualitative
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	Cytomegalovirus PCR - Qualitative
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-7 d Urgent TAT: 1-4 d STAT TAT: N/A
Additional Information	
Specimen Type	Amniotic Fluid, BAL, Blood, Blood Spot, Bone Marrow, CSF, Other, Pericardial Fluid, Pleural Fluid, Tissue, Tracheal Aspirate, Tracheal Wash, Urine, Vitreous Fluid
Specimen Requirement	Amniotic Fluid: Sterile Container (Min. Vol.: 2 mL) BAL: Sterile Container (Min. Vol.: 2 mL) Blood: <2 Years: Map EDTA (Recommended Vol.: 1.0 mL) >2 Years: EDTA (Recommended Vol.: 3.0 mL) Blood Spot: Filter Paper Bone Marrow: EDTA (Recommended Vol.: 3.0 mL) CSF: Sterile Container (Min. Vol.: 1 mL) Other: Sterile Container Pericardial Fluid: Sterile Container (Min. Vol.: 2 mL) Pleural Fluid: Sterile Container (Min. Vol.: 2 mL) Tissue: Sterile Container Tracheal Aspirate: Sterile Container (Min. Vol.: 2 mL) Tracheal Wash: Sterile Container (Min. Vol.: 2 mL) Urine: Sterile Container (Min. Vol.: 2 mL) Vitreous Fluid: Sterile Container (Min. Vol.: 2 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	CMV PCR - Viral Load
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	Cytomegalovirus Quantitative PCR
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-7 d Urgent TAT: 1-4 d STAT TAT: N/A
Additional Information	If this test is ordered together with other viral load PCR tests (except HCV and HIV), please collect into a single tube and affix the labels for each test onto the same tube before sending it to the laboratory.
Specimen Type	Blood
Specimen Requirement	Blood: <2 Years: Map EDTA (Recommended Vol.: 1.0 mL) >2 Years: EDTA (Recommended Vol.: 3.0 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	EBV PCR - Qualitative
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-7 d Urgent TAT: 1-4 d STAT TAT: N/A
Additional Information	
Specimen Type	BAL, Blood
Specimen Requirement	BAL: Sterile Container (Min. Vol.: 2 mL) Blood: <2 Years: Map EDTA (Recommended Vol.: 1.0 mL) >2 Years: EDTA (Recommended Vol.: 3.0 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	EBV PCR - Viral Load
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	Epstein-Barr Virus Quantitative PCR
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-7 d Urgent TAT: 1-4 d STAT TAT: N/A
Additional Information	If this test is ordered together with other viral load PCR tests (except HCV and HIV), please collect into a single tube and affix the labels for each test onto the same tube before sending it to the laboratory.
Specimen Type	Blood
Specimen Requirement	Blood: <2 Years: Map EDTA (Recommended Vol.: 1.0 mL) >2 Years: EDTA (Recommended Vol.: 3.0 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	Enterovirus PCR
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	Coxsackie Virus PCR, Echovirus PCR, Poliovirus PCR
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-4 d Urgent TAT: 24 h STAT TAT: N/A
Additional Information	
Specimen Type	BAL, Blood, Bronchial Wash, CSF, Nasopharyngeal Flocked Swab, Nasopharyngeal Wash, Other, Stool, Throat Gargle, Tissue, Tracheal Aspirate, Tracheal Wash
Specimen Requirement	BAL: Sterile Container (Min. Vol.: 2 mL) Blood: <2 Years: Map EDTA (Recommended Vol.: 1.0 mL) >2 Years: EDTA (Recommended Vol.: 3.0 mL) Bronchial Wash: Sterile Container (Min. Vol.: 2 mL) CSF: Sterile Container (Min. Vol.: 1 mL) Nasopharyngeal Flocked Swab: Viral Swab Nasopharyngeal Wash: Sterile Container (Min. Vol.: 2 mL) Other: Sterile Container Stool: Sterile Container (Min. Vol.: 2 mL) Throat Gargle: Sterile Container (Min. Vol.: 2 mL) Tissue: Sterile Container Tracheal Aspirate: Sterile Container (Min. Vol.: 2 mL) Tracheal Wash: Sterile Container (Min. Vol.: 2 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	Group B Strep PCR
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	GBS PCR, <i>S. agalactiae</i> PCR, <i>Streptococcus agalactiae</i> PCR
Testing Status	In-House
Turn-Around Time	Routine TAT: 24 h Urgent TAT: 4 h STAT TAT: 2 h
Additional Information	
Specimen Type	Blood, Cervical Swab, CSF, Other, Rectal Swab, Recto-Vaginal Swab, Urethral swab, Vaginal Swab
Specimen Requirement	Blood: <2 Years: Map EDTA (Recommended Vol.: 1.0 mL) >2 Years: EDTA (Recommended Vol.: 3.0 mL) Cervical Swab: ESwab CSF: Sterile Container (Min. Vol.: 1 mL) Other: Sterile Container Rectal Swab: ESwab Recto-Vaginal Swab: ESwab Urethral swab: ESwab Vaginal Swab: ESwab
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	HBV PCR - Viral Load
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	Hepatitis B Virus Quantitative PCR
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-7 d Urgent TAT: 1-4 d STAT TAT: N/A
Additional Information	If this test is ordered together with other viral load PCR tests (except HCV and HIV), please collect into a single tube and affix the labels for each test onto the same tube before sending it to the laboratory.
Specimen Type	Blood
Specimen Requirement	Blood: <2 Years: Map EDTA (Recommended Vol.: 1.0 mL) >2 Years: EDTA (Recommended Vol.: 3.0 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	HCV PCR - Viral Load
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	Hepatitis C Virus Quantitative PCR
Testing Status	In-House
Turn-Around Time	Routine TAT: 24 h Urgent TAT: 4 h STAT TAT: 4 h
Additional Information	This viral load test must be collected in its own tube.
Specimen Type	Blood
Specimen Requirement	Blood: EDTA (Min. Vol.: 3 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	HIV-1 PCR – Qualitative *EX*
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	Human Immunodeficiency Virus-1 PCR
Testing Status	Sendaway
Turn-Around Time	Routine TAT: 1-7 d Urgent TAT: N/A STAT TAT: N/A
Additional Information	
Specimen Type	Blood
Specimen Requirement	Blood: <2 Years: Map EDTA (Recommended Vol.: 1.0 mL) >2 Years: EDTA (Recommended Vol.: 3.0 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	HIV-1 PCR - Viral Load
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	HIV-1 Quantitative PCR
Testing Status	In-House
Turn-Around Time	Routine TAT: 24 h Urgent TAT: 4 h STAT TAT: 2 h
Additional Information	This viral load test must be collected in its own tube.
Specimen Type	Blood
Specimen Requirement	Blood: EDTA (Min. Vol.: 3 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	Human Herpesvirus 6 PCR
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	HHV-6 PCR
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-7 d Urgent TAT: 1-4 d STAT TAT: N/A
Additional Information	
Specimen Type	BAL, Blood, Bone Marrow, Bronchial Wash, CSF, Tissue, Tracheal Aspirate, Tracheal Wash
Specimen Requirement	BAL: Sterile Container (Min. Vol.: 2 mL) Blood: <2 Years: Map EDTA (Recommended Vol.: 1.0 mL) >2 Years: EDTA (Recommended Vol.: 3.0 mL) Bone Marrow: EDTA (Min. Vol.: 1 mL) Bronchial Wash: Sterile Container (Min. Vol.: 1 mL) CSF: Sterile Container (Min. Vol.: 2 mL) Tissue: Sterile Container Tracheal Aspirate: Sterile Container (Min. Vol.: 2 mL) Tracheal Wash: Sterile Container (Min. Vol.: 2 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	Human Papillomavirus PCR
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	HPV PCR
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-7 d Urgent TAT: 24 h STAT TAT: N/A
Additional Information	
Specimen Type	Cervical
Specimen Requirement	Cervical: Sterile Container
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	Influenza-RSV-SARS-CoV-2 PCR
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	Flu - RSV, Respiratory Syncytial Virus, Covid-19
Testing Status	In-House
Turn-Around Time	Routine TAT: 12 h Urgent TAT: 6 h STAT TAT: 2 h Clinical units MUST notify the laboratory if the sample is likely to be positive due to clinical symptoms or exposure to COVID-19 Failure to notify the laboratory will result in longer TAT Clinical units MUST call the Microbiology Laboratory (33011) prior to sending STAT specimens
Additional Information	
Specimen Type	Preferred specimen: Nasopharyngeal Flocked Swab Other acceptable specimens: Nasopharyngeal Wash, Sputum, Throat Gargle, Tracheal Aspirate, Tracheal Wash, Nasal Aspirate, Saliva
Specimen Requirement	BAL: Sterile Container (Min. Vol.: 2 mL) Bronchial Wash: Sterile Container (Min. Vol.: 2 mL) Nasal Swab: Viral Swab Nasopharyngeal Flocked Swab: Viral Swab Nasopharyngeal Wash: Sterile Container (Min. Vol.: 2 mL) Salvia: Sterile Container (Min. Vol.: 2 mL) Other: Sterile Container Sputum: Sterile Container (Min. Vol.: 2 mL) Throat Gargle: Sterile Container (Min. Vol.: 2 mL) Tracheal Aspirate: Sterile Container (Min. Vol.: 2 mL) Tracheal Wash: Sterile Container (Min. Vol.: 2 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Double bag – Do NOT use Pneumatic Tube System Keep and Send Refrigerated Keep and Send Refrigerated

Test Name	Measles Virus PCR
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-4 d Urgent TAT: 24 h STAT TAT: N/A
Additional Information	
Specimen Type	Nasopharyngeal Flocked Swab, Nasopharyngeal Wash, Other, Throat Swab, Urine
Specimen Requirement	Nasopharyngeal Flocked Swab: Viral Swab Nasopharyngeal Wash: Sterile Container (Min. Vol.: 2 mL) Other: Sterile Container Throat Swab: Viral Swab Urine: Sterile Container (Min. Vol.: 2 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	MERS-CoV PCR
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	Coronavirus PCR
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-4 d Urgent TAT: 24 h STAT TAT: N/A
Additional Information	
Specimen Type	BAL, Blood, Nasal Aspirate, Nasopharyngeal Flocked Swab, Nasopharyngeal Wash, Oropharyngeal Swab, Other, Pleural Fluid, Sputum, Stool, Throat Gargle, Tissue, Tracheal Aspirate, Tracheal Wash, Urine
Specimen Requirement	BAL: Sterile Container (Min. Vol.: 2 mL) Blood: <2 Years: Map EDTA (Recommended Vol.: 1.0 mL) >2 Years: EDTA (Recommended Vol.: 3.0 mL) Nasal Aspirate: Sterile Container (Min. Vol.: 2 mL) Nasopharyngeal Flocked Swab: Viral Swab Nasopharyngeal Wash: Sterile Container (Min. Vol.: 2 mL) Oropharyngeal Swab: Viral Swab Other: Sterile Container Pleural Fluid: Sterile Container (Min. Vol.: 2 mL) Sputum: Sterile Container (Min. Vol.: 2 mL) Stool: Sterile Container (Min. Vol.: 2 mL) Throat Gargle: Sterile Container (Min. Vol.: 2 mL) Tissue: Sterile Container Tracheal Aspirate: Sterile Container (Min. Vol.: 2 mL) Tracheal Wash: Sterile Container (Min. Vol.: 2 mL) Urine: Sterile Container (Min. Vol.: 2 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	MRSA PCR
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 24 h Urgent TAT: 4 h STAT TAT: 2 h
Additional Information	
Specimen Type	Axilla, Groin, Hairline, Nasal Swab, Perianal Swab, Perineal Swab, Rectal Swab
Specimen Requirement	Axilla: ESwab Groin: ESwab Hairline: ESwab Nasal Swab: ESwab Perianal Swab: ESwab Perineal Swab: ESwab Rectal Swab: ESwab
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	Mumps Virus PCR
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-4 d Urgent TAT: 24 h STAT TAT: N/A
Additional Information	
Specimen Type	Buccal Swab, CSF, Nasopharyngeal Flocked Swab, Nasopharyngeal Wash, Throat Swab, Urine
Specimen Requirement	Buccal Swab: Viral Swab CSF: Sterile Container (Min. Vol.: 1 mL) Nasopharyngeal Flocked Swab: ESwab Nasopharyngeal Wash: Sterile Container (Min. Vol.: 2 mL) Throat Swab: Viral Swab Urine: Sterile Container (Min. Vol.: 5 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	Parvovirus B19 PCR - Viral Load
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-7 d Urgent TAT: 1-4 d STAT TAT: N/A
Additional Information	If this test is ordered together with other viral load PCR tests (except HCV and HIV), please collect into a single tube and affix the labels for each test onto the same tube before sending it to the laboratory.
Specimen Type	Blood
Specimen Requirement	Blood: <2 Years: Map EDTA (Recommended Vol.: 1.0 mL) >2 Years: EDTA (Recommended Vol.: 3.0 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	Pneumocystis jirovecii PCR
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	PCP PCR, Pneumocystis PCR, Pneumocystis jirovecii pneumonia, PCP detection
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-4 d Urgent TAT: 1 d STAT TAT: N/A
Additional Information	
Specimen Type	BAL, Bronchial wash, Lung, Lung Wash, Pleural Fluid, Sputum, Tissue
Specimen Requirement	BAL: Sterile Container (Min. Vol.: 2 mL) Bronchial Wash: Sterile Container (Min. Vol.: 2 mL) Lung: Sterile container, any size tissue (1 cubic centimeter tissue preferred) Lung Wash: Sterile Container (Min. Vol.: 2 mL) Pleural Fluid: Sterile Container (Min. Vol.: 2 mL) Sputum: Sterile Container (Min. Vol.: 2 mL) Tissue: Sterile container, any size (1 cubic centimeter tissue preferred) Also accepted: E-swabs and UTM (Universal Transport medium)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	Respiratory Pathogen PCR Panel
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-4 d Urgent TAT: 24 h STAT TAT: N/A
Additional Information	Respiratory Pathogen PCR Panel includes: Influenza A Virus, Influenza A Virus H1N1, Influenza B Virus, Rhinovirus, Coronavirus NL63, Coronavirus 229E, Coronavirus OC43, Coronavirus HKU1, Parainfluenza virus-1, Parainfluenza virus-2, Parainfluenza virus-3, Parainfluenza virus-4, RSV A/B, Adenovirus, Enterovirus, Parechovirus, <i>Mycoplasma pneumoniae</i> , <i>Chlamydophila pneumoniae</i> , Human metapneumovirus A/B
Specimen Type	BAL, Nasal Aspirate, Nasopharyngeal Flocked Swab, Nasopharyngeal Wash, Pleural Fluid, Sputum, Throat Gargle, Tracheal Aspirate, Tracheal Wash
Specimen Requirement	BAL: Sterile Container (Min. Vol.: 2 mL) Nasal Aspirate: Sterile Container (Min. Vol.: 2 mL) Nasopharyngeal Flocked Swab: Viral Swab Nasopharyngeal Wash: Sterile Container (Min. Vol.: 2 mL) Pleural Fluid: Sterile Container (Min. Vol.: 2 mL) Sputum: Sterile Container (Min. Vol.: 2 mL) Throat Gargle: Sterile Container (Min. Vol.: 2 mL) Tracheal Aspirate: Sterile Container (Min. Vol.: 2 mL) Tracheal Wash: Sterile Container (Min. Vol.: 2 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	Sterile Body Fluid PCR Panel
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	This PCR assay detects: Streptococcus pneumoniae, Staphylococcus aureus, MRSA, Group A Streptococcus , Group B Streptococcus, Haemophilus influenzae, Klebsiella pneumoniae, Pseudomonas aeruginosa Acinetobacter baumannii, Escherichia coli, Kingella kingae.
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-4 d Urgent TAT: 1 d STAT TAT: N/A
Additional Information	
Specimen Type	Whole blood, Tissue/Biopsy (fresh or in saline), BAL, Blood culture media, Pleural fluid, Joint fluid, CSF
Specimen Requirement	EDTA Blood (plasma) – Minimum volume is 200 µL (plasma) Tissue: Sterile container, any size fresh or in saline (1 cubic centimeter tissue preferred) BAL: Sterile Container (Min. Vol.: 2 mL) Pleural Fluid, Joint Fluid, CSF Blood culture media: (Min. Vol.: 2 mL) Synovial Fluid: (Min. Vol.: 2 mL) CSF: (Min. Vol.: 2 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	TB PCR
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	Mycobacterium tuberculosis PCR
Testing Status	In-House
Turn-Around Time	Routine TAT: 24 h Urgent TAT: 4 h STAT TAT: 4 h
Additional Information	TB PCR includes: <i>Mycobacterium tuberculosis</i> , Rifampin Resistance
Specimen Type	BAL, Bronchial Wash, CSF, Culture, Other, Pleural Fluid, Sputum, Tracheal Aspirate, Tracheal Wash
Specimen Requirement	BAL: Sterile Container (Min. Vol.: 2 mL) Bronchial Wash: Sterile Container (Min. Vol.: 2 mL) CSF: Sterile Container (Min. Vol.: 1 mL) Culture: Sterile Container Other: Sterile Container Pleural Fluid: Sterile Container (Min. Vol.: 2 mL) Sputum: Sterile Container (Min. Vol.: 2 mL) Tracheal Aspirate: Sterile Container (Min. Vol.: 2 mL) Tracheal Wash: Sterile Container (Min. Vol.: 2 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	CSF PCR Panel
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-4 d Urgent TAT: 24 h STAT TAT: N/A
Additional Information	CSF PCR Panel includes: Escherichia coli K1, Haemophilus influenzae, Listeria monocytogenes, Neisseria meningitides, Streptococcus agalactiae, Streptococcus pneumoniae, CMV, EV, HSV1, HSV2, HHV6, Parechovirus, VZV, Cryptococcus neoformans/gattii
Specimen Type	CSF
Specimen Requirement	CSF: Sterile Container (Min. Vol.: 1 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	VZV PCR
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	Varicella-Zoster Virus PCR
Testing Status	In-House
Turn-Around Time	Routine TAT: 1-4 d Urgent TAT: 24 h STAT TAT: N/A
Additional Information	
Specimen Type	BAL, Blood, Bronchial Wash, CSF, Eye Swab, Other, Skin Scraping, Skin Swab, Tissue, Tracheal Aspirate, Tracheal Wash, Vitreous Fluid
Specimen Requirement	BAL: Sterile Container (Min. Vol.: 2 mL) Blood: <2 Years: Map EDTA (Recommended Vol.: 1.0 mL) >2 Years: EDTA (Recommended Vol.: 3.0 mL) Bronchial Wash: Sterile Container (Min. Vol.: 2 mL) CSF: Sterile Container (Min. Vol.: 1 mL) Eye Swab: ESwab Other: Sterile Container Skin Scraping: Sterile Container (Min. Vol.: 1 mL) Skin Swab: Viral Swab Tissue: Sterile Container Tracheal Aspirate: Sterile Container (Min. Vol.: 2 mL) Tracheal Wash: Sterile Container (Min. Vol.: 2 mL) Vitreous Fluid: Sterile Container (Min. Vol.: 0.5 mL)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Test Name	16S Sequencing Bacterial Detection
Division	Pathology Sciences (Molecular Infectious Diseases)
Synonyms & Care Sets	rDNA Sequencing, rRNA Sequencing, Sequencing, 16S bacterial identification
Testing Status	In-House
Turn-Around Time	Routine TAT: 7 d Urgent TAT: 4 d STAT TAT: N/A
Additional Information	
Specimen Type	Blood, Bone Marrow, CSF, Synovial Fluid, Sterile Body Fluids, Tissue/Biopsy
Specimen Requirement	Blood (EDTA tube): (Min. Vol.: 2 mL) Bone Marrow (EDTA tube): - min. 250µL CSF: Sterile container (Min. Vol.: 1 mL) Synovial fluids: Sterile container (Min. Vol.: 1 mL) Body fluid (sterile): (Min. Vol.: 1 mL) Tissue/Biopsy: Sterile container, any size (1 cubic centimeter tissue preferred)
Additional Collection Instructions	Refer to Appendix A
Special Handling	Keep and Send Refrigerated

Serology

Note: Please communicate URGENT/STAT requests to the Lab Section verbally (ext. 32944), to ensure samples are handled with the highest priority.

Test Orderable	Antenatal Serology Panel
Synonyms	
Testing Location	Serology section
Turn-Around Time	Routine TAT: 7 days Urgent TAT: 24 hours STAT TAT: 24 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	3.5mL
Special Handling Requirements	Nil
Additional Information	Panel includes the following tests: Hepatitis B Surface Antigen Hepatitis C Antibody Screen HIV Antigen & Antibody Screen Syphilis Antibody Screen Varicella zoster IgG Antibody Rubella IgG Antibody CMV IgG Antibody Toxoplasma IgG Antibody Note: all elements are optional. All individual tests are listed and can be included/excluded when the test is ordered.

Test Orderable	Anti-Bacterial Antibodies
Synonyms	
Testing Location	Serology section
Turn-Around Time	Routine TAT: 7 days Urgent TAT: 2 days STAT TAT: 2 days
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	Panel includes the following tests: Pneumococcus IgG Antibodies <i>H. influenzae</i> type b IgG Antibodies Tetanus toxoid IgG Antibodies Diphtheria toxoid IgG Antibodies

Test Orderable	Blood Borne Exposure - Employee
Synonyms	BBE- Employee Needle Stick Injury - Employee
Testing Location	Serology section
Turn-Around Time	Routine TAT: 24 hours Urgent TAT: 2 hours STAT TAT: 2 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	2.0mL
Special Handling Requirements	Notify the Serology Section (ext. 32944) to ensure samples are processed urgently.
Additional Information	Panel includes the following tests: Hepatitis B Surface Antibody Hepatitis B Surface Antigen Hepatitis C Antibody Screen HIV Antigen & Antibody Screen

Test Orderable	Blood Borne Exposure - Source
Synonyms & Care Sets	BBE- Source Needle Stick Injury - Patient
Testing Location	Serology section
Turn-Around Time	Routine TAT: 24 hours Urgent TAT: 2 hours STAT TAT: 2 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	1.8mL
Special Handling Requirements	Notify the Serology Section (ext. 32944) to ensure samples are processed urgently.
Additional Information	Panel includes the following tests: Hepatitis B Surface Antigen Hepatitis C Antibody Screen HIV Antigen & Antibody Screen

Test Orderable	Brucella Antibody Screen
Synonyms	
Testing Location	Serology section
Turn-Around Time	Routine TAT: 3 days Urgent TAT: 24 hours STAT TAT: 24 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube CSF - Sterile container
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	<p>The Screen includes IgG and IgM Antibody. In addition, an Antibody Titer will be performed if either is Positive.</p> <p>Note: Contact the Microbiologist-on-call if testing is required for a CSF sample.</p>

Test Orderable	CMV IgG Antibody
Synonyms	
Testing Location	Serology section
Turn-Around Time	Routine TAT: 7 days Urgent TAT: 12 hours STAT TAT: 12 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	CMV IgM Antibody
Synonyms	
Testing Location	Serology section
Turn-Around Time	Routine TAT: 3 days Urgent TAT: 12 hours STAT TAT: 12 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Name	CMV IgG Avidity *EX*
Synonyms & Care Sets	
Testing Location	Sendaway - HMC
Turn-Around Time	Routine TAT: 7 days Urgent TAT: N/A STAT TAT: N/A
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	Avidity testing is only performed on samples that have a Positive IgG and IgM Antibody. Please contact the Serology section (ext. 32944) to add the order to an existing sample.

Test Orderable	Dengue Fever Screen *EX*
Synonyms & Care Sets	
Testing Location	Sendaway - HMC
Turn-Around Time	Routine TAT: 7 days Urgent TAT: N/A STAT TAT: N/A
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	Panel includes the following tests: Dengue IgG Antibody Dengue IgM Antibody

Test Orderable	EBV Serology Panel
Synonyms	EBNA Epstein Barr Virus Screen
Testing Location	Serology section
Turn-Around Time	Routine TAT: 7 days Urgent TAT: 12 hours STAT TAT: 12 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	Panel includes the following tests: EBV VCA IgG Antibody EBV VCA IgM Antibody EBV NA (EBNA) IgG Antibody

Test Orderable	Echinococcus Antibody Profile *EX*
Synonyms	Hydatid Antibody
Testing Location	Sendaway - HMC
Turn-Around Time	Routine TAT: 7 days Urgent TAT: N/A STAT TAT: N/A
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	Entamoeba Histolytica Antibody *EX*
Synonyms	Amoeba Antibody Amoeba Serology
Testing Location	Sendaway - HMC
Turn-Around Time	Routine TAT: 7 days Urgent TAT: N/A STAT TAT: N/A
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	Calprotectin Fecal
Synonyms	
Testing Location	Serology section
Turn-Around Time	Routine TAT: 7 days Urgent TAT: 24 hours STAT TAT: 24 hours
Specimen Type - Container	Stool (suitable, sealed container)
Minimum Volume	Pea-sized sample
Special Handling Requirements	Sample can be stored at 2-8°C for up to 48 hours before delivery to the laboratory.
Additional Information	Fecal Calprotectin should only be ordered on clinical suspicion of IBD.

Test Orderable	Galactomannan Antigen
Synonyms	Aspergillus Serology
Testing Location	Serology section
Turn-Around Time	Routine TAT: 7 days Urgent TAT: 24 hours STAT TAT: 24 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube Broncho-Alveolar-Lavage (BAL) - Sterile container
Minimum Volume	0.6mL
Special Handling Requirements	Cap samples immediately post-collection.
Additional Information	

Test Orderable	Hepatitis A Antibody (Total)
Synonyms	HAV Antibody Viral Hepatitis Serology Panel
Testing Location	Serology section
Turn-Around Time	Routine TAT: 7 days Urgent TAT: 12 hours STAT TAT: 12 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	This test detects both IgG and IgM Antibody present in the sample, but does not differentiate between the two.

Test Orderable	Hepatitis A IgM Antibody
Synonyms	HAV IgM Antibody
Testing Location	Serology section
Turn-Around Time	Routine TAT: 24 hours Urgent TAT: 4 hours STAT TAT: 2 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	Hepatitis Acute Infection Panel
Synonyms	Acute Hepatitis Serology
Testing Location	Serology section
Turn-Around Time	Routine TAT: 7 days Urgent TAT: 12 hours STAT TAT: 12 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	1.2mL
Special Handling Requirements	Nil
Additional Information	Panel includes the following tests: Hepatitis A IgM Antibody Hepatitis B Surface Antigen Hepatitis B Core IgM Antibody Hepatitis Be Antigen Hepatitis C Antibody Screen

Test Orderable	Hepatitis B Core Antibody Screen
Synonyms	
Testing Location	Serology section
Turn-Around Time	Routine TAT: 7 days Urgent TAT: 12 hours STAT TAT: 12 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	This test detects both IgG and IgM Antibody present in the sample, but does not differentiate between the two.

Test Orderable	Hepatitis B Core IgM Antibody
Synonyms	HBcAb IgM HBV Core IgM Antibody
Testing Location	Serology section
Turn-Around Time	Routine TAT: 7 days Urgent TAT: 12 hours STAT TAT: 12 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	Hepatitis B Surface Antibody
Synonyms	HBsAb HBV Immunization Status HBV Post Vaccination HBV Surface Antibody
Testing Location	Serology section
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Turn-Around Time	Routine TAT: 24 hours Urgent TAT: 4 hours STAT TAT: 2 hours
Additional Information	

Test Orderable	Hepatitis B Surface Antigen
Synonyms	HBsAg HBV Surface Antigen,
Testing Location	Serology section
Turn-Around Time	Routine TAT: 24 hours Urgent TAT: 4 hours STAT TAT: 2 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	Any new Positive result will have Confirmatory testing performed before results are reported.

Test Orderable	Hepatitis Be Antibody
Synonyms	
Testing Location	Serology section
Turn-Around Time	Routine TAT: 7 days Urgent TAT: 12 hours STAT TAT: 12 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	Hepatitis Be Antigen
Synonyms	
Testing Location	Serology section
Turn-Around Time	Routine TAT: 7 days Urgent TAT: 12 hours STAT TAT: 12 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	Hepatitis C Antibody Screen
Synonyms	HCV Antibody Screen
Testing Location	Serology section
Turn-Around Time	Routine TAT: 24 hours Urgent TAT: 4 hours STAT TAT: 2 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	Any new Positive result will have Confirmatory testing performed before results are reported.

Test Orderable	Hepatitis D Antibody *EX*
Synonyms	Hepatitis D IgM Antibody *EX* Hepatitis D IgG Antibody *EX*
Testing Location	Sendaway - HMC
Turn-Around Time	Routine TAT: 7 days Urgent TAT: N/A STAT TAT: N/A
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Testing will only be performed on samples from patients with known/confirmed Hepatitis B.
Additional Information	Panel includes the following tests: Hepatitis D IgG Antibody Hepatitis D IgM Antibody

Test Orderable	Hepatitis E Serology Panel *EX*
Synonyms	HEV Antibody Screen *EX*
Testing Location	Sendaway - HMC
Turn-Around Time	Routine TAT: 7 days Urgent TAT: N/A STAT TAT: N/A
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	Panel includes the following tests: Hepatitis E IgG Antibody Hepatitis E IgM Antibody

Test Orderable	Histoplasma Antibody *EX* \$
Synonyms	CSF Histoplasma Antibody *EX* Histoplasma Antibody *EX*
Testing Location	Sendaway – Mayo Medical Laboratory
Turn-Around Time	Routine TAT: 14 days Urgent TAT: N/A STAT TAT: N/A
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube CSF - Sterile container
Minimum Volume	2.0mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	Histoplasma Antigen *EX* \$
Synonyms	CSF Histoplasma Antigen *EX* Urine Histoplasma Antigen *EX*
Testing Location	Sendaway – Mayo Medical Laboratory
Turn-Around Time	Routine TAT: 14 days Urgent TAT: N/A STAT TAT: N/A
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube CSF - Sterile container Urine (random) - Sterile container
Minimum Volume	Blood - 2.0mL CSF - 1.0mL Urine - 3.0mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	HIV Screen
Synonyms	HIV Serology
Testing Location	Serology section
Turn-Around Time	Routine TAT: 24 hours Urgent TAT: 4 hours STAT TAT: 2 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	Any new Positive result will have Confirmatory testing performed before results are reported..

Test Orderable	HSV 1/2 IgG Antibody
Synonyms	
Testing Location	Serology section
Turn-Around Time	Routine TAT: 3 days Urgent TAT: 12 hours STAT TAT: 12 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	This test includes individual testing and reporting for type-1 and type-2 IgG Antibody.

Test Orderable	HSV 1/2 IgM Antibody
Synonyms	Herpes Simplex 1/2 IgM
Testing Location	Serology section
Turn-Around Time	Routine TAT: 3 days Urgent TAT: 12 hours STAT TAT: 12 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	HTLV I/II Antibody Screen *EX*
Synonyms	
Testing Location	Sendaway - HMC
Turn-Around Time	Routine TAT: 7 days Urgent TAT: N/A STAT TAT: N/A
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	Hydatid Antibody *EX*
Synonyms	Echinococcus Antibody *EX*
Testing Location	Sendaway - HMC
Turn-Around Time	Routine TAT: 7 days Urgent TAT: N/A STAT TAT: N/A
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	Infliximab Concentration
Synonyms	Infliximab concentration with reflex anti-IFX antibody
Testing Location	Serology section
Turn-Around Time	Routine TAT: 24 hours Urgent TAT: 4 hours STAT TAT: 2 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	If the "IFX Concentration with reflex" test is ordered, an "anti-IFX antibody" will be performed if the result is <5.0.

Test Orderable	Infliximab Antibody *EX* \$
Synonyms	
Testing Location	Sendaway - BioScientia
Turn-Around Time	Routine TAT: 2 weeks Urgent TAT: N/A STAT TAT: N/A
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	Insulin-Like Growth Factor I
Synonyms	IGF-I Somatomedin C
Testing Location	Serology section
Turn-Around Time	Routine TAT: 7 days Urgent TAT: 12 hours STAT TAT: 12 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Send to the laboratory immediately following collection.
Additional Information	Reference Intervals are age and sex dependent. Refer to LIS results for details.

Test Orderable	Leishmania Antibody *EX*
Synonyms	
Testing Location	Sendaway - HMC
Turn-Around Time	Routine TAT: 7 days Urgent TAT: N/A STAT TAT: N/A
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	Lyme Disease Antibody *EX* \$\$
Synonyms & Care Sets	
Testing Status	Sendaway - Mayo Medical Laboratory
Turn-Around Time	Routine TAT: 2 weeks Urgent TAT: N/A STAT TAT: N/A
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	1.0mL
Special Handling Requirements	Nil
Additional Information	Routine detection of American Lyme disease. Confirmation testing (Western Blot) is performed on any positive samples. For European/Asian Lyme disease, please contact the Laboratory.

Test Orderable	Measles IgG Antibody
Synonyms	
Testing Location	Serology section
Turn-Around Time	Routine TAT: 7 days Urgent TAT: 12 hours STAT TAT: 12 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	Measles IgM Antibody
Synonyms	
Testing Location	Serology section
Turn-Around Time	Routine TAT: 3 days Urgent TAT: 12 hours STAT TAT: 12 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	MMR Serology Panel
Synonyms	MMR Post Vaccination
Testing Location	Serology section
Turn-Around Time	Routine TAT: 7 days Urgent TAT: 12 hours STAT TAT: 12 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	1.2mL
Special Handling Requirements	Nil
Additional Information	Panel includes the following tests: Measles IgG Antibody Mumps IgG Antibody Rubella IgG Antibody

Test Orderable	Mumps IgG Antibody
Synonyms	
Testing Location	Serology section
Turn-Around Time	Routine TAT: 7 days Urgent TAT: 12 hours STAT TAT: 12 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	Mumps IgM Antibody
Synonyms	
Testing Location	Serology section
Turn-Around Time	Routine TAT: 3 days Urgent TAT: 12 hours STAT TAT: 12 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	Parvovirus B19 IgG Antibody
Synonyms	Parvovirus Antibody IgG
Testing Location	Serology section
Turn-Around Time	Routine TAT: 3 days Urgent TAT: 12 hours STAT TAT: 12 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	Parvovirus B19 IgM Antibody
Synonyms	Parvovirus Antibody IgM
Testing Location	Serology section
Turn-Around Time	Routine TAT: 3 days Urgent TAT: 12 hours STAT TAT: 12 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	Procalcitonin
Synonyms	PCT
Testing Location	Serology section
Turn-Around Time	Routine TAT: 12 hours Urgent TAT: 2 hours STAT TAT: 2 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube Blood (plasma) - Lithium Heparin tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	Q Fever Antibody *EX* \$
Synonyms	Coxiella Burnetii Ab IgG Phase I *EX* Coxiella Burnetii Ab IgG Phase II *EX*
Testing Location	Sendaway - Mayo Medical Laboratory
Turn-Around Time	Routine TAT: 2 weeks Urgent TAT: N/A STAT TAT: N/A
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	2.0mL
Special Handling Requirements	Nil
Additional Information	Q Fever Antibody screen with reflex to titer, if positive.

Test Orderable	Quantiferon Gold - TB
Synonyms	Latent Tuberculosis Testing
Testing Location	Serology section
Turn-Around Time	Routine TAT: 7 days Urgent TAT: 24 hours STAT TAT: 24 hours
Specimen Type - Container	Blood (plasma) - 2x 3.5mL Lithium Heparin tubes
Minimum Volume	4.0mL
Special Handling Requirements	Must collect 2 full LiHep tubes.
Additional Information	

Test Orderable	RPR – response to therapy
Synonyms	RPR - ?Congenital RPR.
Testing Location	Serology section
Turn-Around Time	Routine TAT: 24 hours Urgent TAT: 4 hours STAT TAT: 4 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	Testing is only performed as a confirmation for a Positive screening test; as a post-treatment follow-up for a known case; or, on a patient <6 months of age (from a Syphilis Positive mother).

Test Orderable	Rubella IgG Antibody
Synonyms	Rubella Immunity
Testing Location	Serology section
Turn-Around Time	Routine TAT: 24 hours Urgent TAT: 4 hours STAT TAT: 2 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	Rubella IgM Antibody
Synonyms	
Testing Location	Serology section
Turn-Around Time	Routine TAT: 3 days Urgent TAT: 12 hours STAT TAT: 12 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	Schistosoma Antibody *EX*
Synonyms	
Testing Location	Sendaway - HMC
Turn-Around Time	Routine TAT: 7 days Urgent TAT: N/A STAT TAT: N/A
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	Syphilis Antibody Screen
Synonyms	RPR-syphilis screen Treponema Pallidum Antibody
Testing Location	Serology section
Turn-Around Time	Routine TAT: 24 hours Urgent TAT: 4 hours STAT TAT: 2 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	Any new Positive samples will have supplementary testing (Antibody confirmation & RPR) performed before results are reported.

Test Orderable	ToRCH Serology Panel
Synonyms	
Testing Location	Serology section
Turn-Around Time	Routine TAT: 7 days Urgent TAT: 12 hours STAT TAT: 12 hours
Additional Information	Panel includes the following tests: <i>Toxoplasma</i> IgG Antibody Rubella IgG Antibody CMV IgG Antibody HSV 1/2 IgG Antibody Parvovirus B19 IgG Antibody
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	3.0mL
Special Handling Requirements	Nil

Test Orderable	Toxocara Antibody IgG *EX* \$
Synonyms	
Testing Location	Sendaway - Mayo Medical Laboratory
Turn-Around Time	Routine TAT: 2 weeks Urgent TAT: N/A STAT TAT: N/A
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	2.0mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	Toxoplasma IgG Antibody
Synonyms	
Testing Location	Serology section
Turn-Around Time	Routine TAT: 7 days Urgent TAT: 12 hours STAT TAT: 12 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	Toxoplasma IgM Antibody
Synonyms	
Testing Location	Serology section
Turn-Around Time	Routine TAT: 3 days Urgent TAT: 12 hours STAT TAT: 12 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	Varicella Zoster IgG Antibody
Synonyms	VZV IgG Antibody VZV Immunization Status VZV Post Vaccination
Testing Location	Serology section
Turn-Around Time	Routine TAT: 7 days Urgent TAT: 12 hours STAT TAT: 12 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	Varicella Zoster IgM Antibody
Synonyms	VZV IgM Antibody
Testing Location	Serology section
Turn-Around Time	Routine TAT: 3 days Urgent TAT: 12 hours STAT TAT: 12 hours
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	

Test Orderable	CSF VDRL *EX*
Synonyms	VDRL Serology
Testing Location	Sendaway - HMC
Turn-Around Time	Routine TAT: 7 days
Specimen Type - Container	CSF - Sterile container
Minimum Volume	1.0mL
Special Handling Requirements	Nil
Additional Information	VDRL testing is performed on CSF samples only. Testing is only performed on patients with a confirmed diagnosis of Syphilis.

Test Orderable	Zika Virus Screen *EX*
Synonyms	
Testing Location	Sendaway - HMC
Turn-Around Time	Routine TAT: 7 days Urgent TAT: N/A STAT TAT: N/A
Specimen Type - Container	Blood (serum) - SST tube, Red-top tube
Minimum Volume	0.6mL
Special Handling Requirements	Nil
Additional Information	Panel includes the following tests: Zika virus IgG Antibody Zika virus IgM Antibody



Point of Care



Point of Care

Test Orderable	POCT Blood Gas
Description	Blood Gas Analysis
Specimen	Arterial, Mixed Venous, Venous, Capillary, Cord, ECMO or circulatory blood collected in heparinized syringe or capillary tube
Minimum Volume	150 µL
Testing Interval	Samples must be processed no more than 15 minutes after collection
Devices in Use	GEM5000
Method	Potentiometry (pH, Na, K Cl, iCa), GEM pCO2 Sensor (pCO2), Amperometric (pO2), Enzymatic Biosensors (Glu, Lac), Conductivity Sensor (Hct), Optical System XO-Oximetry (Hb, O2Hb, COHb, MetHb, HHb, SO2, Bilirubin)
Parameters Measured	Blood Gas (pH, pCO2, pO2), Electrolytes (Na, K, Cl, iCa), Metabolites (Glu, Lac), CO-Oximetry (Hb, O2Hb, COHb, MetHb, HHb, Bilirubin)
Reference	PRO-O-GEM5000 (PTH-PRO-1075) Appendix A
Performing Test Location(s)	Main OR, Cath Lab, NICU (2), PICU (2), Emergency Department, 3D Birthing Center

Reference Intervals in Cerner								
Assay Display	Assay Description	Age From	Age To	Sex	Reference Low	Reference High	Critical Low	Critical
BG-pH	Blood Gas pH	0 Minutes	150 Years	All				
BG-PCO2	Blood Gas PCO2	0 Minutes	150 Years	All				
BG-PO2	Blood Gas PO2	0 Minutes	150 Years	All				
BG-TCO2	Blood Gas Total CO2	0 Minutes	150 Years	All				
BG-HCO3	Blood Gas HCO3	0 Minutes	150 Years	All				
BG-BE	Blood Gas-BE	0 Minutes	150 Years	All	-2	3		
BG-O2SAT	Blood Gas O2SAT	0 Minutes	150 Years	All				
BG-Na	Blood Gas Na	0 Minutes	7 Days	All	135	147	126	154
BG-Na	Blood Gas Na	7 Days	16 Years	All	135	145	126	154
BG-Na	Blood Gas Na	16 Years	150 Years	All	135	145	121	154

Assay Display	Assay Description	Age From	Age To	Sex	Reference Low	Reference High	Critical Low	Critical High	Linear Low	Linear High
BG-K	Blood Gas K	0 Minutes	3 Months	All	3.3	6.5	2.6	6.4	0.5	11.9
BG-K	Blood Gas K	3 Months	1 Years	All	3.3	6	2.6	6.4	0.5	11.9
BG-K	Blood Gas K	1 Years	19 Years	All	3.5	5.2	2.6	6.4	0.5	11.9
BG-K	Blood Gas K	19 Years	150 Years	All	3.5	5.3	2.6	6.4	0.5	11.9
BG-Cl	Blood Gas Cl	0 Minutes	16 Years	All	98	116			34	174
BG-Cl	Blood Gas Cl	16 Years	150 Years	All	101	111			34	174
BG-Ca2+	Blood Gas iCa2+	0 Minutes	150 Years	All	1.12	1.32	0.8	1.6	0.1	3.6
BG-Glu	Blood Gas Glucose	0 Minutes	6 Months	All	4	6	2.6	14.9	0.2	30.1
BG-Glu	Blood Gas Glucose	6 Months	150 Years	All	4	6	2.6	19.9	0.2	30.1
BG-Lact	Blood Gas Lactate	0 Minutes	150 Years	All	0.5	2.2		4	0.3	21
BG-Bili	Blood Gas Bili	0 Minutes	150 Years	All					5	684
BG-Hb	Blood Gas Hb	0 Minutes	7 Days	All	145	225	90	250	20	250
BG-Hb	Blood Gas Hb	7 Days	14 Days	All	135	215	90	250	20	250
BG-Hb	Blood Gas Hb	14 Days	31 Days	All	125	205	90	250	20	250
BG-Hb	Blood Gas Hb	31 Days	61 Days	All	100	180	70	200	20	250
BG-Hb	Blood Gas Hb	61 Days	91 Days	All	90	140	70	200	20	250
BG-Hb	Blood Gas Hb	91 Days	181 Days	All	110	147	70	200	20	250
BG-Hb	Blood Gas Hb	181 Days	3 Years	All	106	145	70	200	20	250
BG-Hb	Blood Gas Hb	3 Years	12 Years	All	110	157	70	200	20	250
BG-Hb	Blood Gas Hb	12 Years	15 Years	Male	125	170	70	200	20	250
BG-Hb	Blood Gas Hb	15 Years	150 Years	Male	137	180	70	200	20	250
BG-Hb	Blood Gas Hb	12 Years	150 Years	Female	120	160	70	200	20	250
BG-Hct	Blood Gas Hct	0 Minutes	7 Days	All	45	67			15	74
BG-Hct	Blood Gas Hct	7 Days	14 Days	All	42	66			15	74
BG-Hct	Blood Gas Hct	14 Days	31 Days	All	39	63			15	74
BG-Hct	Blood Gas Hct	31 Days	61 Days	All	31	55			15	74
BG-Hct	Blood Gas Hct	61 Days	91 Days	All	28	42			15	74
BG-Hct	Blood Gas Hct	91 Days	181 Days	All	31	45			15	74

Assay Display	Assay Description	Age From	Age To	Sex	Reference Low	Reference High	Critical Low	Critical High	Linear Low	Linear High
BG-Hct	Blood Gas Hct	181 Days	3 Years	All	31	44			15	74
BG-Hct	Blood Gas Hct	3 Years	12 Years	All	34	46			15	74
BG-Hct	Blood Gas Hct	12 Years	15 Years	Male	36	50			15	74
BG-Hct	Blood Gas Hct	15 Years	150 Years	Male	40	54			15	74
BG-Hct	Blood Gas Hct	12 Years	150 Years	Female	36	48			15	74
BG-O2Hb	Blood Gas O2Hb	0 Minutes	150 Years	All					0	100
BG-COHB	Blood Gas COHb	0 Minutes	150 Years	All					0	100
BG-MHb	Blood Gas MetHb	0 Minutes	150 Years	All					0	100
BG-HHb	Blood Gas HHb	0 Minutes	150 Years	All					0	100
BG-FiO2	Blood Gas FiO2	0 Minutes	150 Years	All					0	100

*Appropriate saturation ranges, both higher and lower, must be targeted according to the clinical setting

Reference interval sources: O2Hb, MetHb, HHb Teitz, CoHb Clin Chem 2006, 52: 338, Critical values from Clinical Biochemistry laboratory, Abbott Diagnostics and Am J Respir Crit Care Med 2012 186: 1095–1101. For more clarification on other test reference ranges/critical limits for the analytes please refer to the Beckman Coulter DXC800 – Operation procedure.

Reference Intervals in the Analyser								
Assay Display	Assay Description	Sample Type	Reference Low	Reference High	Critical Low	Critical High	Linear Low	Linear High
BG-pH	Blood Gas pH	ART & CAP Only	7.35	7.45	7.21	7.59	6.5	8
BG-pH	Blood Gas pH	VEN Only	7.31	7.41			6.5	8
BG-PCO2	Blood Gas PCO2	ART & CAP Only	35	45	20	70	6	150
BG-PCO2	Blood Gas PCO2	VEN Only	41	51			6	150
BG-PO2	Blood Gas PO2	ART	80	105	44		5	800
BG-TCO2	Blood Gas Total CO2	ART Only	23	27				
BG-TCO2	Blood Gas Total CO2	VEN Only	24	29				
BG-HCO3	Blood Gas HCO3	ART Only	22	26			0	99.9
BG-HCO3	Blood Gas HCO3	VEN Only	23	28			0	99.9
BG-BE	Blood Gas-BE		-2	3			-99.9	99.9
BG-O2SAT	Blood Gas O2SAT	ART Only	95	98	90*		15	100
BG-Na	Blood Gas Na	ART, VEN, MIXVEN, CAP only	135	147	126	154	110	200
BG-K	Blood Gas K	ART, VEN, MIXVEN, CAP only	3.3	6	2.6	6.4	0.5	20
BG-Cl	Blood Gas Cl	ART, VEN, MIXVEN, CAP only	101	111	85	120	40	170
BG-Ca2+	Blood Gas iCa2+	ART, VEN, MIXVEN, CAP only	1.12	1.32	0.8	1.6	0.1	5
BG-Glu	Blood Gas Glucose	ART, VEN, MIXVEN, CAP only	4	6	2.6	14.9	0.2	41.6
BG-Lact	Blood Gas Lactate	ART, VEN, MIXVEN, CAP only	0.5	2.2		4	0.3	20
BG-Bili	Blood Gas Bili	ART, VEN, MIXVEN, CAP only					5	684

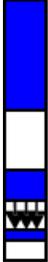
Assay Display	Assay Description	Sample Type	Reference Low	Reference High	Critical Low	Critical High	Linear Low	Linear High
BG-Hb	Blood Gas Hb	ART, VEN, MIXVEN, CAP only	120	160	70	200	20	250
BG-Hct	Blood Gas Hct	ART, VEN, MIXVEN, CAP only	40	54			15	74
BG-O2Hb	Blood Gas O2Hb	ART Only	94	98			0	100
BG-COHb	Blood Gas COHb	ART Only	0	3		10	0	100
BG-MHb	Blood Gas MetHb	ART Only	0	1.5			0	100
BG-HHb	Blood Gas HHb	ART Only	0	6			0	100
BG-FiO2	Blood Gas FiO2						0	100

Reference interval sources: O2Hb, MetHb, HHb Teitz, CoHb Clin Chem 2006, 52: 338, Critical values from Clinical Biochemistry laboratory, Abbott Diagnostics and Am J Respir Crit Care Med 2012 186: 1095–1101. For more clarification on other test reference ranges/critical limits for the analytes please refer to the Beckman Coulter DXC800 – Operation procedure.

Test Orderable	POCT Activated Clotting Time
Description	Activated Clotting Time Low Range, Activated Clotting Time Plus
Specimen	Fresh whole blood (venous, capillary) collected in non-anticoagulated plastic syringe
Minimum Volume	50 µL
Testing Interval	Immediate processing of the sample
Devices in Use	Hemochron Signature Elite
Method	Optical monitoring of the end point clotting
Parameters Measured	ACT-LR, ACT+
Reference	PRO-O-Hemochron (PTH-PRO-457)
Performing Test Location(s)	Main OR, ICUs, Cardiology (Cath Lab)

Reference Intervals					
Test	Procedure	Lower Limit	Upper Limit	Abnormal Low	Abnormal High
ACT	ECMO	160	180	120	250
ACT	CRRT	140	170		250
Interpretation of the test result requires correlation with the patient's clinical condition and any unusual POC result should be acted upon appropriately and in accordance with the clinical findings of the patient.					

Test Orderable	POCT Amnisure
Description	Detection of the rupture of amniotic membrane
Specimen	Vaginal swab
Minimum Volume	N/A
Testing Interval	Immediate processing of the samples
Devices in Use	Amnisure ROM test kit
Method	Lateral flow device
Parameters Measured	Detection of ICFBP-1 and AFP proteins in cervical secretions
Reference	PRO-O-Amnisure (PTH-PRO-450)
Performing Test Location(s)	Ob Triage

Results Interpretation		
POSITIVE: There is a rupture	NEGATIVE: No membrane rupture	INVALID: Invalid test – repeat testing required.
		
Both control and test are present	ONLY control line present	NO lines are present

Test Orderable	POCT HbA1c
Description	Glycated Hemoglobin
Specimen	Fresh whole blood (venous, capillary); collect using special Vantage pipette for collection; acceptable anticoagulants are EDTA and Heparin
Minimum Volume	1 µL
Testing Interval	Process within 5 minutes of collection
Devices in Use	Siemens DCA Vantage
Method	Inhibition of latex agglutination with spectrophotometric detection
Parameters Measured	HbA1c
Reference	PRO-O-Siemens DCA Vantage HbA1c Analyser (PTH-PRO-172)
Performing Test Location(s)	Endocrine Clinic

Reference Intervals
N/A

Test Orderable	POCT Hemocue Hb
Description	Hemocue Hemoglobin
Specimen	Fresh whole blood (arterial, venous, capillary)
Minimum Volume	50 µL
Testing Interval	Immediate processing of sample at patient bedside
Devices in Use	Hemocue Hb 201DM
Method	Modified azidemethemoglobin reaction
Parameters Measure	Hemoglobin
Reference Interval	PRO-O-Hemocue Hb201DM (PTH-PRO-458)
Performing Test Location(s)	OB PACU

Reference Intervals in the Analyser based on the adult female range				
Test	Lower	Upper	Critical Low	Critical High
Hemoglobin (g/L)	120	160	70	250
Reference Intervals in Cerner are similar as the ones in Hematology CBC procedure (PTH-PRO-117)				

Test	Age From	Age To	Sex	Reference Low	Reference High	Critical Low	Critical High	Linear Low	Linear High
Hemoglobin (g/L)	0 Minutes	7 Days	All	145	225	90	250	0	256
Hemoglobin (g/L)	7 Days	14 Days	All	135	215	90	250	0	256
Hemoglobin (g/L)	14 Days	31 Days	All	125	205	90	250	0	256

Test	Age From	Age To	Sex	Reference Low	Reference High	Critical Low	Critical High	Linear Low	Linear High
Hemoglobin (g/L)	31 Days	61 Days	All	100	180	70	200	0	256
Hemoglobin (g/L)	61 Days	91 Days	All	90	140	70	200	0	256
Hemoglobin (g/L)	91 Days	181 Days	All	110	147	70	200	0	256
Hemoglobin (g/L)	181 Days	3 Years	All	106	145	70	200	0	256
Hemoglobin (g/L)	3 Years	12 Years	All	110	157	70	200	0	256
Hemoglobin (g/L)	12 Years	15 Years	Male	125	170	70	200	0	256
Hemoglobin (g/L)	15 Years	150 Years	Male	137	180	70	200	0	256
Hemoglobin (g/L)	12 Years	150 Years	Female	120	160	70	200	0	256

Test Orderable	POCT iSTAT CG8+
Description	iSTAT CG8+
Specimen	Arterial, Mixed Venous, Venous, Capillary, Cord, ECMO or circulatory blood collected in heparinized syringe or capillary tube
Minimum Volume	150 µL
Testing Interval	Samples must be processed no more than 15 minutes after collection
Devices in Use	Abbott iSTAT
Method	Potentiometry (pH, pCO ₂ , pO ₂ , Na, K, iCa, Glu)
Parameters Measured	Blood Gas (pH, pCO ₂ , pO ₂), Electrolytes (Na, K, iCa), Metabolites (Glu)
Reference	PRO-O-iSTAT (PTH-PRO-118)
Performing Test Location(s)	Diagnostic Imaging (Hospital plaza), Main OR, Cath Lab, Respiratory Therapy

Reference Intervals										
Assay Display	Age From	Age To	Sex	Sample Type	Reference Low	Reference High	Critical Low	Critical High	Linear Low	Linear High
POC-pH	0 Minutes	150 Years	All	ART ONLY	7.35	7.45	7.21	7.59	6.5	8.2
POC-pH	0 Minutes	150 Years	All	VEN Only	7.31	7.41			6.5	8.2
POC-PCO ₂	0 Minutes	150 Years	All	ART ONLY	35	45	22	65	6.0	128
POC-PCO ₂	0 Minutes	150 Years	All	VEN Only	41	51			6.0	128
POC-PO ₂	0 Minutes	2 days	All	ART ONLY			38	91	20	569
POC-PO ₂	2 days	1month	All	ART ONLY	80	105	38	91	20	569
POC-PO ₂	1 month	16 years	All	ART ONLY	80	105	46	123	20	569
POC-PO ₂	16 years	150 years	All	ART ONLY	80	105	44		20	569
POC-Na	0 Minutes	< 7 days	All	ALL	135	147	126	154	110	200
POC-Na	7 days	< 2 yrs	All	ALL	135	145	126	154	110	200
POC-Na	2 yrs	< 16 yrs	All	ALL	135	145	126	154	110	200
POC-Na	16 yrs	150 yrs	All	ALL	135	145	121	154	110	200

Assay Display	Age From	Age To	Sex	Sample Type	Reference Low	Reference High	Critical Low	Critical High	Linear Low	Linear High
POC-K	0 Minutes	< 3 months	All	ALL	3.3	6.5	2.6	6.4	1.0	9.84
POC-K	3 months	< 1 year	All	ALL	3.3	6	2.6	6.4	1.0	9.84
POC-K	1 yr	< 19 yrs	All	ALL	3.5	5.2	2.6	6.4	1.0	9.84
POC-K	19 yrs	150 yrs	All	ALL	3.5	5.3	2.6	6.4	1.0	9.84
POC-ionized Ca2+	0 Minutes	150 Years	All	ALL	1.12	1.32	0.8	1.6	0.25	2.86
POC-Glu	0 Minutes	150 Years	All	ALL	4	6	2.6	14.9	0.5	41.6
POC-Glu	6 Months	150 Years	All	ALL	4	6	2.6	19.9	0.5	41.6
POC-O2SAT	0 Minutes	150 Years	All	ART ONLY	95	98	91		15	100
POC-TCO2	0 Minutes	150 Years	All	ART ONLY	23	27			5	50
POC-BE	0 Minutes	150 Years	All	ALL	-2	3			-99.9	99.9
POC-HCO3	0 Minutes	150 Years	All	ART ONLY	22	26			1	85
POC-FIO2	0 Minutes	150 Years	All	ALL					0	100

Test Orderable	POCT Creatinine
Description	iSTAT Creatinine
Specimen	Arterial, Mixed Venous, Venous, Capillary, Cord, ECMO or circulatory blood collected in heparinized syringe or capillary tube
Minimum Volume	150 µL
Testing Interval	Samples must be processed no more than 15 minutes after collection
Devices in Use	Abbott iSTAT
Method	Potentiometry
Parameters Measured	Creatinine
Reference	PRO-O-ISTAT (PTH-PRO-118) Appendix A
Performing Test Location(s)	Diagnostic Imaging (Plaza Hospital)

Reference Intervals										
Assay Display	Age From	Age To	Sex	Sample Type	Reference Low	Reference High	Critical Low	Critical High	Linear Low	Linear High
POC Creatinine	0 Minutes	15 Days	All	ALL	27	77		200	18	1768
POC Creatinine	15 Days	2 Years	All	ALL	9	30		200	18	1768
POC Creatinine	2 Years	5 Years	All	ALL	17	36		200	18	1768
POC Creatinine	5 Years	12 Years	All	ALL	26	51		200	18	1768
POC Creatinine	12 Years	15 Years	All	ALL	38	68		200	18	1768
POC Creatinine	15 Years	19 Years	Male	ALL	52	90		350	18	1768
POC Creatinine	19 Years	150 Years	Male	ALL	54	110		350	18	1768
POC Creatinine	15 Years	19 Years	Female	ALL	41	70		350	18	1768
POC Creatinine	19 Years	150 Years	Female	ALL	39	89		350	18	1768

Test Orderable	POCT Glucose
Description	Blood Glucose
Specimen	Fresh whole blood (finger prick), in lithium heparin tube (arterial, venous)
Minimum Volume	1.6 µL
Testing Interval	Immediate processing of sample at patient bedside
Devices in Use	Nova StatStrip
Method	Enzymatic method with amperometric detection
Parameters Measured	Glucose
Reference	PRO-O-Nova StatStrip Glucose/Ketone Meter (PTH-PRO-120)
Performing Test Location(s)	All Sidra

Reference Intervals in Cerner			
Analyte	Age interval	Reference interval	Critical Values*
Glucose	0 – 6 months	4.0 – 6.0 mmol/L	<2.6 or >14.9 mmol/L
	>6months	4.0 – 6.0 mmol/L	<2.6 or >19.9 mmol/L

Reference Intervals in the instrument		
Analyte	Reference interval	Critical Values*
Glucose	4.0 – 6.0 mmol/L	<2.6 or >19.9 mmol/L

Test Orderable	POCT Ketone
Description	Blood Ketone
Specimen	Fresh whole blood (finger prick), in lithium heparin tube (arterial, venous)
Minimum Volume	1.6 µL
Testing Interval	Immediate processing of sample at patient bedside
Devices in Use	Nova StatStrip
Method	Enzymatic method with amperometric detection
Parameters Measured	Ketone
Reference	PRO-O-Nova StatStrip Glucose/Ketone Meter (PTH-PRO-120)
Performing Test Location(s)	All Sidra

Reference Intervals in Cerner		
Blood Ketones mmol/L	Classification	Critical Values
Less than 0.6 mmol/L	Normal	
0.6 – 1.4 mmol/L	Mild ketonemia	
1.5 – 2.9 mmol/L	Moderate ketonemia	
3.0 mmol/L or above	Severe ketonemia	3.0 mmol/L or above

<i>Reference Intervals in the instrument</i>		
<i>Analyte</i>	<i>Reference interval</i>	<i>Critical Values*</i>
Ketone	0.0 – 3.0 mmol/L	>3.0 mmol/L

Test Orderable	POCT Urinalysis
Description	Urinalysis
Specimen	Fresh void urine in dry container free of additives
Minimum Volume	10 mL
Testing Interval	Sample must be processed within 2 hours of collection
Devices in Use	Siemens Clinitek Status Connect
Method	Photometric reader
Parameters Measured	Glucose, bilirubin, ketones, specific gravity, pH, blood, protein, urobilinogen, nitrites, leukocytes
Reference	PRO-O-Clinitek Status Plus (PTH-PRO-119)
Performing Test Location(s)	All Sidra

Reference intervals	
Expected (Male and Female all ages)	
Analyte	Reference Interval
Specific Gravity	1.005 – 1.035
pH	5.0-8.0
Protein, Qualitative	Negative, Trace
Glucose	Negative
Ketones	Negative
Bilirubin	Negative
Blood	Negative
Nitrite	Negative
Urobilinogen	3.2, 16, 33 µmol/L
Leukocyte Esterase	Negative

Test Orderable	POCT Urine Pregnancy
Description	Urine Pregnancy Test
Specimen	Fresh void urine in dry container free of additives
Minimum Volume	10 mL
Testing Interval	Sample must be processed within 2 hours of collection
Devices in Use	Siemens Clinitek Status Connect
Method	Photometric Reader
Parameters Measured	β hCG
Reference	PRO-O-Clinitek Status Plus (PTH-PRO-119)
Performing Test Location(s)	All Sidra

Reference intervals	
Test	Result
HCG Non-Pregnant Females	Negative – No detectable hCG level occurs when using the Clinitest hCG Pregnancy Test.
HCG Pregnant Females	<ol style="list-style-type: none"> 100 mIU/mL on the day of the first missed menstrual period. Peak levels of hCG occur at 8-10 weeks after the last menstrual period and then decline to lower values for the remainder of the pregnancy. hCG levels rapidly decrease and usually a return to normal within days of delivery.

Test Orderable	POCT COVID/Flu A and B Combo Antigen test
Description	Rapid COVID/Flu A& B Combo Antigen testing
Specimen	Nasopharyngeal swab specimen
Minimum Volume	Swab
Testing Interval	Specimens may be stored at room temperature for up to 1 hours or at 2-8°C/ 36-46°F for up to 4 hours prior to testing.
Devices in Use	N/A
Method	Rapid chromatographic immunoassay for the qualitative detection
Parameters Measured	SARS-CoV-2, Influenza A & B Antigen
Reference	PRO-O-POC COVID/Flu A&B Rapid antigen Test procedure, PTH-PRO-1012
Performing Test Location(s)	All Sidra

Results interpretation		
Test result	Example	Description
Negative		Only band ("C" Control line) within the result window indicates a negative result.
Positive		Two colored bands ("C" Control line and "A" Test line) within the result window indicate influenza A positive.
		Two colored bands ("C" Control line and "B" Test line) within the result window indicate influenza B positive.
		Two colored bands ("C" Control line and "S" Test line) within the result window indicate SARS-CoV-2 positive.
		Three colored bands ("C" Control line, "A" Test line and "B" Test line) within the result window indicate influenza A/B positive.
		Three colored bands ("C" Control line, "S" Test line and "A" Test line) within the result window indicate SARS-CoV-2 and influenza A positive.
		Three colored bands ("C" Control line, "S" Test line and "B" Test line) within the result window indicate SARS-CoV-2 and influenza B positive.
		Four colored bands ("C" Control line, "S", "A" and "B" Test line) within the result window indicate SARS-CoV-2 and influenza A/B positive.
Invalid		If the control band ("C" Control line) is not visible within the result window, the result is considered invalid. The directions may not have been followed correctly or the test may have deteriorated. Re-test with a new test device.
		

Test Orderable	POCT Avoximeter
Description	Oxyhemoglobin saturation (%HbO ₂)
Specimen	Heparinised or EDTA Anticoagulant whole blood, Freshly Drawn whole blood into a plain syringe
Minimum Volume	
Testing Interval	For heparinised vacutainer or EDTA vacutainer filled to labelled capacity test within 10 minutes of collection. For fresh whole blood collected into a plain syringe test within 3 minutes of collection, but ideally immediately.
Devices in Use	Avoximeter 1000E
Method	Optical density record of the sample at each of the 5 wavelengths and from the data obtained calculates the result.
Parameters Measured	%HbO ₂
Reference	PRO-O-Avoximeter 1000E, PTH-PRO-903
Performing Test Location(s)	Cardiology (Cath Lab)

Reference Intervals											
Assay Display	Assay Description	Sample Type	Age From	Age To	Sex	Reference Low	Reference High	Critical Low	Critical High	Linear Low	Linear High
POC-O2Hb	POC O2Hb	Art Only	0 Minutes	150 Years	All	94	98			0	100

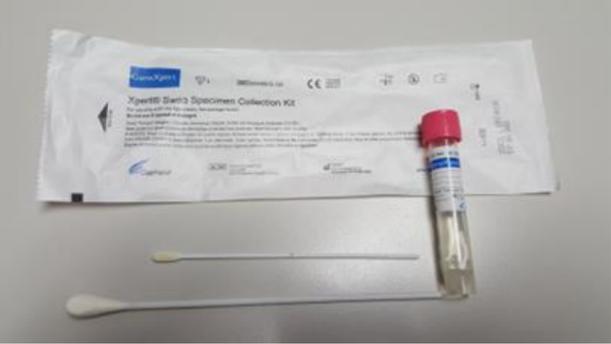
Test Orderable	POCT ROTEM
Description	ROTEM sigma complete cartridge and ROTEM sigma complete cartridge + hep contain reagents for the assessment of coagulation and its interaction with thrombocytes in citrated whole blood
Specimen	ROTEM test is performed with citrated whole blood sample using 3.2% buffered Sodium Citrate tube that is filled properly.
Minimum Volume	3 mL
Testing Interval	The stability of the sample varies according to the test, however generally, within 4 hours from collection time - no influence on the measurement results of activated tests is noticed with samples from healthy individuals.
Devices in Use	ROTEM sigma
Method	Rotational Thromboelastometry
Parameters Measured	INTEM, EXTEM, FIBTEM, APTEM, HEPTEM
Reference	PRO-O-ROTEM Sigma (PTH-PRO-1000)
Performing Test Location(s)	OR Level 1

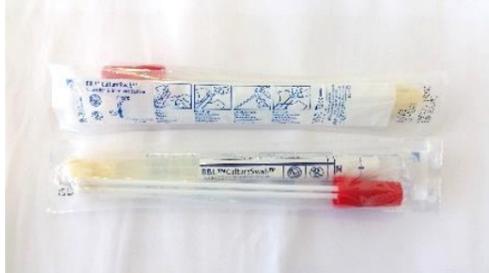
Reference Intervals					
INTEM					
Age group	CT (s)	CFT (s)	α Angle (°)	A10(mm)	MCT (mm)
0-3 months					
Median	184	44	81	62	66
Reference Range	105-285	27-88	74-85	50-72	54-73
4-12 months					
Median	172	60	78	59	63
Reference Range	76-239	37-100	73-83	47-70	57-73

13-24 months						
Median	161	61	78	59	64	
Reference Range	99-207	42-112	70-82	45-67	50-72	
2-5 years						
Median	170	60	78	59	63	
Reference Range	99-239	40-94	72-82	49-68	53-73	
6-10 years						
Median	168	64	77	57	62	
Reference Range	97-212	48-93	72-80	49-66	53-69	
11-16 years						
Median	171	68	77	56	62	
Reference Range	128-206	45-106	70-81	48-67	54-71	
EXTEM						
Age group	CT (s)	CFT (s)	α Angle (°)	A10(mm)	MCT (mm)	CLI60(%)
0-3 months						
Median	48	57	78	60	92	87
Reference Range	38-65	30-105	69-84	51-72	54-74	71-94
4-12 months						
Median	53	72	76	57	60	86
Reference Range	37-77	44-146	68-82	46-68	46-71	71-95

13-24 months						
Median	55	75	75	56	60	88
Reference Range	37-73	46-139	64-81	41-68	46-72	77-94
2-5 years						
Median	56	72	75	58	61	86
Reference Range	46-97	41-109	69-82	49-68	52-70	74-93
6-10 years						
Median	57	77	74	56	60	87
Reference Range	43-74	49-114	67-80	49-65	53-68	70-97
11-16 years						
Median	59	81	74	57	62	88
Reference Range	44-91	53-115	67-80	49-67	53-72	76-94

Appendix A - Microbiology Collection Items

Microbiology Collection Quick Reference Guide [with Oracle Catalog Numbers]				
Blood Culture Bottles			Swabs	STD Collection Kits
Adult Aerobic and Anaerobic [KCA0008405 and KCA0008406]	Pediatric [KCA0008407]	Fungal [KCA0022305]	Viral Collection Kit [KBD0037128]	STD Collection Kit (Swab) [KBD0010300]
				
Required Volume: 8-10 ml	Required Volume: 1-3 ml	Required Volume: 1-5 ml		
Used for: Blood Culture Body Fluid Culture Bone Marrow Culture Brucella Blood Culture	Used for: Blood Culture Body Fluid Culture Bone Marrow Culture Brucella Blood Culture	Used for: Fungal Culture Blood	Used for: Flu–RSV–COVID-19 PCR Respiratory Pathogen PCR Panel <i>Bordetella pertussis</i> PCR Nasopharyngeal swab for all viral PCRs (e.g., Measles Virus PCR, MERS-CoV PCR, etc.) Buccal swab for Mumps Virus PCR	Used for: Chlamydia - Gonorrhoea PCR Rectal/Vaginal/Urethral For CT/NG from Eyes: Call lab reception at 33000

Swabs		Containers	
ESwab Regular (Adult – light blue top) [KBD0008458] or Minitip (Pediatric - green top) [KBD0008460]	Red Top Double Swab [ENK0005335]	Sterile Container (yellow lid) [KBD0006310]	Sterile Container (red lid) [KBD0004125]
<p>Adult-regular Pediatric-minutip</p> 			
Used for: Strep A PCR CPO Screen VRE Screen VZV - HSV PCR Wound Culture Throat Culture <i>Neisseria gonorrhoeae</i> Culture	Used for: MRSA Screen MRSA PCR GBS Screen GBS PCR	Used for: Bronchoalveolar lavage Tracheal aspirate Body Fluid Culture Tissue/Biopsy Culture Stool Culture Ova & Parasites GI PCR panel Other stool tests	Used for: Bronchoalveolar lavage Tracheal aspirate Body Fluid Culture Tissue/Biopsy Culture Stool Culture Ova & Parasites GI PCR panel

Containers
Sputum Collection Kit [KBD0008457]

Used for: Sputum

Appendix B – Non-Micro Collection Quick Reference Guide

Non-Micro Collection Quick Reference Guide

Blood

Tube name	Citratd/Light Blue Top		Plain/Red Top		SST/Yellow Top		Heparinized/ Green Top		PST/ Mint Green Top		EDTA/ Lavender Top			EDTA/Pink Top	Trace Element Serum	Trace Element Plasma	NaF/Grey Top [10008782]
Lawson Number	10044264	10010499	10008780	10007229	10008781	10007226	10010503	10007227	10010502	10010501	10010498	10008787	10007225	10008779	10010504	10010505	10008782
Tube																	
Required volume	1mL	1.8mL	1-4mL	250 - 500µL	1.5-3.5mL	400 - 600µL	4mL	200 - 400µL	1.5-3.5mL	400 - 600µL	2-4mL	1-2mL	375-500µL	2-6mL	2-6mL	2-6mL	2mL
Inversions	4		5		5		8		8		8			8	8	8	8
Used for	Coagulation studies, PT, APTT, vWD Panel, D-Dimer		Immunological tests, alternative to Biochemistry tests		For serum determination: Biochemistry, Immunology, Serology, Other drug monitoring		For tests requiring heparinized whole blood: Blood gas, Ammonia, Drug Monitoring, Quantiferon		For tests requiring heparinized Plasma. Used for biochemistry tests for patients < 2yrs.		Hematological Tests, HBA1C, Molecular Microbiology, other PCR			Blood bank, Crossmatching	Toxicology, Zinc, Copper	Toxicology, Lead	Glucose, Lactic Acid
Note	A discard tube must be used when collecting with vacutainer system. Must be filled with exact volume of the tube.				Can also be used for glucose test.												

Non-blood

Container name	Universal Container (red lid)	Sterile Container (red lid, individually wrapped, sterile inside & out)	Lumbar puncture tray tubes
Lawson Number	10004162		1018996
Container			
Required volume	Varied	Varied	0.5-1mL
Used for	CSF, Fresh tissue, Body fluids	CSF, Fresh tissue, Body fluids	CSF, Body fluids
Note		For use when a lumbar puncture tray is not being used and container must be sterile on the outside	Numbered 1-4

Appendix C – Quick Reference Guide: General Pathology Specimen Labelling Requirements

Specimen type	Acceptable	Not Acceptable
All serum / Plasma 3.5 ml Tube	<ul style="list-style-type: none"> Cerner barcode – Place the label directly over the tube label Ensure there is a gap to visibly see the blood 	<ul style="list-style-type: none"> Winkled barcode Barcode wrapped around the tube 
Serum / Plasma Pediatric Tube	<ul style="list-style-type: none"> Cerner Label placed vertical on the tube 	<ul style="list-style-type: none"> Label wrapped around tube 
Urinalysis, Urine C&S, stool, sputum container 100 ml cup	<ul style="list-style-type: none"> Patient Hospital label with time and date of collection Also label with Cerner Barcode 	
Urinalysis 10 ml Aliquot	<ul style="list-style-type: none"> Cerner Barcode Place the label directly over the tube label 	<ul style="list-style-type: none"> Do not wrap label around the tube or place to high or low 

Specimen type	Acceptable	Not Acceptable
<p>24 Hour Urine</p>	<ul style="list-style-type: none"> Label with 24hr Urine Label and ensure start date and time as well as finished date and time is complete. If no label available, write on bottle and label with hospital label Once sample is received, label with Cerner barcode  <p>PATIENT AND TEST INFORMATION FOR 24-HOUR URINE COLLECTION</p> <p>Patient Name: _____</p> <p>Ref. #: _____</p> <p>Test Requested: _____</p> <p>Preservative Added: _____</p> <p># of Bottles Used: _____</p> <p>Total Volume Collected: _____</p> <p>Collection Starting Times: Hour _____ Date _____</p> <p>Collection Ending Times: Hour _____ Date _____</p>	<ul style="list-style-type: none"> Required information not completed Missing start date and time or a finish date and time
<p>Handwritten labels</p>	<ul style="list-style-type: none"> Label with Cerner barcode when available Do not cover the handwritten name with the barcode 	<ul style="list-style-type: none"> Cerner label over the original hand-written label
<p>Blood Culture Bottles</p>	<ul style="list-style-type: none"> The label must be vertical so it is easier to scan into the instrument and the label must not cover the barcode 	<ul style="list-style-type: none"> Not acceptable – when the label covers the bottle barcode 
<p>All Swabs</p>	<ul style="list-style-type: none"> Cerner Label with initials Must write collection site on the label as well as the time and date of collection 	<ul style="list-style-type: none"> No time or date of collection or site of collection