OUTPATIENT REFERRAL GUIDELINES

August 2024

سدرة للطب
Sidra Medicine

CONTENTS

1. INTRODUCTION

Sidra Medicine provides a fully comprehensive range of pediatric services and a select range of key women and adult services, as set out in the table below. Sidra Medicine is one of several healthcare organizations in Qatar that has widened the choice for healthcare services, and financial counselors will advise patients of their financial options and provide support throughout the process. Patients can call 40030899 between 7.00 am to 7.00 pm, or email financialcounseling@sidra.org.

The next section sets out the referral process, for both electronic and paper referrals. Self-referrals are available for women's services. For urgent referrals, Sidra Medicine seeks to secure an appointment date within three (3) working days and offer an appointment within 30 calendar days from the date of referral.

The third section sets out the outpatient referral guidelines for each specialty, which include the most common symptoms indicative of the need to refer to Sidra Medicine. Sidra Medicine schedules appointments based on clinical appropriateness and seeks to redirect patients who can be more effectively cared for elsewhere. Sidra Medicine supports an integrated, community-based, and patient and family-centered model of care, across the public and private sectors.

Sidra Service		
Pediatric Services	**Women's Services**	**Combined Services**
• Adolescent Medicine • Allergy and Immunology • Cardiology and Cardiac Surgery • Child & Adolescent Mental Health • Complex Care • Dentistry • Dermatology • Developmental Pediatrics • Endocrinology • Gastroenterology • General Pediatrics • General and Thoracic Surgery • Genetics • Genetic Counseling • Genetic Metabolic • Hematology and Oncology • Infectious Diseases • Neonatology High-Risk Infant Follow-Up • Neonatology Prenatal Consult • Nephrology • Neurology • Neurosurgery • Ophthalmology and Orthoptics • Optometry • Orthopedics • Otolaryngology • Plastic and Craniofacial Surgery • Pulmonology • Rehabilitation Medicine • Rheumatology • Sidra Child Advocacy Program (S-CAP) • Urology	• Gynecology • Maternal Fetal Medicine • Obstetrics • Women's Mental Health • Reproductive Medicine	• Diagnostic Imaging/Radiology

2. REFERRAL PROCESS

2.1 Electronic Referrals

- Step 1 — Select the option titled Add which is found under the menu option "Orders".
- Step 2 — For Children:
  Search for "Sidra" and select "Referral to Sidra Pediatric Services".
  For Women:
  Search for "gynecology" or "obstetrics".
  Select "Referral to Gynecology" for Gynecology and Reproductive Medicine services.
  Select "Referral to Obstetrics" for all other Women's services.
  For Diagnostic Imaging/Radiology Service:
  Electronic referrals are not yet available for this service; see section 2.2 below for information on paper referrals.
- Step 3 — Complete all required fields, including a distinctive 'Reason for Referral', and a clinically justifiable level of 'Priority'.
  For Women's, also select 'Sidra Hospital' in the 'Referring To' field.
- Step 4 — Add patient's clinical details in the 'Special Instruction' field.
  For Women's, add para, gravida, and expected date of delivery in this field.
- Step 5 — Finalize the order by selecting the option titled 'Sign'.

2.2 Paper Referrals

- Step 1 — Use the referral forms found on pages 5 and 6 of this document.
  If it is necessary to use HMC referral forms, please clearly mark the forms with "For Sidra" to ensure they are routed appropriately.
- Step 2 — Complete all required fields, including a distinctive 'Reason for Referral', and a clinically justifiable level of 'Priority', the patient's contact details, the referring physician's name, signature, and contact details. Please use clearly legible handwriting and indicate the clinical service for referral. Also document appropriate clinical history to justify the requested imaging exams.
- Step 3 — Print three copies; one for Sidra Medicine, one for the patient, and one for your records as the referring physician.
- Step 4 — Sign, stamp, and date the hard copy for Sidra Medicine.
- Step 5 — Email the Clinic Referral form to OPCReferrals@sidra.org
  Email the Diagnostic Imaging Referral to DIreferral@sidra.org
  If necessary, the form can be dropped off in one of the referral boxes located in the OPC or Main Hospital Information Desks at Sidra Medicine

2.3 Referrals to the Emergency Department

- Step 1 — Call the physician in charge in the Sidra Medicine Emergency Department at 7019 2847. For the best and safest patient care, this is required of all internal and external referring physicians for all those patients which will visit the Sidra Medicine Emergency Department. Also nurses to call the Sidra ED charge nurse 7057 8653.
- Step 2 — Provide a summary of the patient's problems and current condition, acute treatments recently administered, and any specific problems reasonably expected to require attention. If patient is sick, a nurse needs to accompany the patient from OPC until handed over to ED nurse.

Sidra Medicine
Center P.O. Box 26999, Doha, Qatar
www.sidra.org

REFERRAL FORM

Patient Details

HC.No. _____
Name _____
Nationality _____
Date of Birth DD/MM/YYYY _____
Age in Years _____ Gender ☐ M ☐ F

Mobile _____
Tel.(Home) _____
Tel.(Work) _____
Relation _____

☐ STAT
☐ Routine
☐ Urgent
☐ Schedule

Patient Qatar ID | | | | | | | | | | | |

Referring Physician's Name _____
Referring Center & Number _____ Tel. _____ Fax _____
Referring to Specialty _____

History _____

Examination / Investigation (including Laboratory and Radiology results with dates) _____

Treatment given (including Current Medication) _____

Provisional Diagnosis _____

Reason / Purpose for Referral _____

Date DD/MM/YYYY _____ Time HR : MIN _____	Referring Physician's Signature and Stamp

For Physician use only

Patient seen on (date) DD/MM/YYYY _____	☐ Patient did not show

Initial Diagnosis _____

Recommendation and Plan _____

Other care needed ☐ Referral Recommendation ☐ Follow-up ☐ Discharge to

Comments _____

Patient's Signature Date DD/MM/YYYY _____ Time HR : MIN _____ Contact No. _____	Physician's Signature and Stamp

1. Sidra copy 2. Referrer's copy 3. Patient copy

سدرة للطب
Sidra Medicine

SIDRA MEDICINE
PO.BOX 26999, DOHA, QATAR
WWW.SIDRA.ORG

RADIOLOGY REQUEST

Please answer the following for ALL requests: INCOMPLETE/ILLEGIBLE FORMS WILL BE RETURNED.

Reception Phone Numbers: (Hospital) **400 31250** / (OPC) **400 35951**

Radiology Main Desk Phone Number:

Requesting Physician:	Family name:	MRN :
	First Name:	QID:
	Address:	HIC Number:
Ward / Clinic:	Date of Birth:	Encounter:
	Phone:	☐ Male ☐ Female
	Email:	
Clinical details/Relevant history (Include reason for urgency if applicable)	Clinical question:	
	Examination requested: ☐ BMD ☐ Fluoro ☐ NM ☐ PET-CT ☐ IR ☐ CT ☐ MRI ☐ X-ray ☐ US Body part: ☐ Right ☐ Left ☐ N/A	
Signature	**Date**	**Physician Contact number:**
Pregnancy status if applicable ☐ Pregnant ☐ Not Pregnant Gestation weeks:		LMP
Patient alerts: MRSA, Blind, Deaf, etc.		
State any known and type of **allergies**, especially to Radiographic contrast media.		

Please answer the following ONLY for examinations which may require the administration of IV contrast agents.

Renal impairment or failure ☐ YES ☐ NO If YES, specify the eGFR or Serum Creatinine

Date of result:

On **Metformin** ☐ YES ☐ NO **Asthmatic** ☐ YES ☐ NO

Please answer the following ONLY for MRI examinations

Cardiac pacemaker ☐ Yes ☐ No Programmable hydrocephalus shunt? ☐ Yes ☐ No

Any operations involving the use of metal clips, pins, stent or implants? ☐ Yes ☐ No

If known, specify date and relevant details including type of clip, implant etc.

For Departmental use only

Vetting / protocol here

Vetted by (Print Name): Signature: Date:

3. REFERRAL GUIDELINES

This section sets out the most common symptoms indicative of the need to refer to Sidra Medicine. The symptoms are grouped by specialty, and the specialties are grouped into three categories—pediatric services, women's services, and combined services. Within each category, the specialties are listed in alphabetical order.

Unless specifically stated otherwise in each referral guideline, Sidra Medicine accepts referrals for pediatric patients from 0-18 years old and women of all ages. It is recommended that these guidelines are used in conjunction with national guidelines, organizational service scopes, and clinical judgement.

3.1 Adolescent Medicine

Age Group	Exclusions
• 10 - 18 years old for neurobehavioral disorders • 12 - 18 years old for all other diagnoses	• known substance use and addictive disorder • actively suicidal patients • delusions/ hallucinations • moderate to severe aggression • gender dysmorphia and gender non-conformity • obesity

Symptoms	Known Diagnoses
• body image and self-concept issues related to medication or illness • chronic medical illness, with complex transition to adult care • chronic medical illness, with low mood, self-harm behavior, and compliance issues • chronic medical illness, with menstrual dysfunction • disordered eating (significant weight loss or failure to gain expected weight provided that all organic causes for weight loss have been ruled out, suspected anorexia nervosa, bulimia nervosa, avoidant restrictive food intake disorders) • mild to moderate hyperactivity, impulsivity and inattention that affect functioning at home and/or school • mild to moderate autism spectrum disorder with behavioral concerns • psychological factors affecting other medical conditions (e.g., asthma, cystic fibrosis, diabetes with depression, anxiety, family dysfunction, adherence, compliance to treatment) • school refusal and failure • uncomplicated mild to moderate anxiety • uncomplicated mild to moderate depression	• eating disorders (anorexia nervosa, bulimia nervosa, avoidant restrictive food intake disorder)

3.2 Allergy and Immunology

Age Group	Exclusions
• < 14 years old	• N/A

Symptoms	Known Diagnoses
• chronic or recurrent dermatitis not responsive to topical hydrocortisone, or with known food trigger • chronic or recurrent episodes of urticaria, and/or angioedema • delayed separation of the umbilical cord, by over 2 weeks, especially with infection or elevated neutrophil count • urticaria, angioedema, wheezing, vomiting and/or hypotension after food ingestion, drug administration, or insect bite • recurrent of wheezing, cough and/or shortness of breath (≥ 3 episodes) • sneezing, rhinorrhea and/or conjunctivitis that is seasonal or chronic (unresponsive to standard doses of antihistamines) • infections that are chronic (not responding to therapy), recurrent (2 – 5 episodes depending on severity), or opportunistic (unusual), including otitis media, sinusitis, pneumonia, candidiasis, meningitis, abscesses, or family history of primary immunodeficiency or early death from infection	• allergic rhino conjunctivitis • anaphylaxis with or without previously defined trigger • dermatitis (suspected atopic) • drug allergy, especially if requiring confirmation • eosinophilic esophagitis and/or gastroenteritis • food allergies, except milk-induced proctocolitis • primary immunodeficiency disease • insect hypersensitivity • persistent, or intermittent seasonal, asthma • recurrent otitis media (≥ 5 in a year) • recurrent sinusitis (≥ to 2 in a year) • urticaria/ angioedema/ mastocytosis • recurrent pneumonia (≥ 2 in a year)

3.3 Cardiology and Cardiac Surgery

Age Group	Exclusions
• <18 years old for acquired and congenital heart disease • >18 years old with known congenital/structural heart disease including arrhythmias since childhood • >18 years old with suspected congenital/structural heart disease from the HMC Heart Hospital after initial investigation	• history of intermittent cyanosis with no other cardiac finding • chest pain not following the pathway provided below for recurrent chest pain

Symptoms

- abnormal electrocardiogram suggestive of arrhythmias, prolonged QT, pathologic q waves/ST-T changes or significant ventricular hypertrophy or abnormal electrocardiogram after discussing with cardiologist on-call where the service is available
- abnormal transcutaneous saturations: persistence < 94 % in infants < 6 months (on repeated measurements), once lung disease has been ruled out or low saturation highly suggestive of cardiac disease (history of intermittent cyanosis with no other cardiac finding is excluded)
- cardiac evaluation for established genetic or systemic disease that is known to be associated with cardiac involvement, e.g., Marfan, Turner, Down, DiGeorge, Noonan, muscular dystrophy, Williams syndromes, etc.)
- cardiac evaluation as part of work-up or criteria to diagnose genetic, systemic, familial or hereditary disease such as but not limited to metabolic disease, cardiomyopathy, history of aborted sudden cardiac death in < 35 years of age in the family
- cardiac evaluation prior to initiation of therapy or management that might affect heart function or hemodynamic
- cardiomegaly on chest X-ray after confirmation with radiologist
- diagnosed hypertension after nephrology evaluation to check the effect of high pressure on the heart
- evaluation of cardiac surgery for vascular abnormalities, e.g., vascular ring
- heart murmur after correction of anemia in asymptomatic patient or resolution of febrile illness that has no cardiac involvement
- physical signs suggestive of cardiac failure, e.g., tachycardia, tachypnea, gallop or liver enlargement
- recurrent chest pain, that is highly suggestive of cardiac involvement and based on the following pathway for investigation of cardiac causes: http://www.chop.edu/clinical-pathway/chest-pain-clinical-pathway
- more than one palpitation
- (pre)syncope without neurological etiology, suggestive of vasovagal episodes or arrhythmia with parental concern; in process of creating a pathway or initial investigation prior to referral.
- variety of symptoms suggestive of cardiac involvement after initial investigations to exclude non-cardiac causes (e.g., cyanosis, shortness of breath and failure to thrive)
- established (congenital/non-congenital) heart disease
- other symptoms suggestive of cardiac disease that have not been included above can be referred after discussing with the on-call cardiologist where the service is available
- adult patients with paravalvar mitral and/or aortic leaks with symptoms of heart failure or hemolysis for leak closure

3.4 Child and Adolescent Mental Health (Psychiatry)

Age Group	Exclusions
• 5 - 18 years old	• eating disorders • known substance abuse problems • < 5 years old for suspected mental health issues; refer to Sidra Medicine's General Pediatrics per their criteria • < 5 years old for suspected or known autism, and attention deficit hyperactivity disorder; refer to Sidra Medicine's Developmental Medicine per their criteria

Symptoms	Known Diagnoses

• moderate or severe aggression, and severe tantrums
• hyperactivity, impulsivity, inattention
• sad mood and self-harming behaviors
• anxiety and nervousness
• concerns about autism spectrum disorders
• sudden change in day-to-day functioning (e.g., in academic performance, irritability, isolation)
• post-discharge psychiatric care
• children experiencing hallucinations/ delusions
• children in need of psychiatric medications including antidepressants, antipsychotics, anxiolytics, stimulants etc.
• grief symptoms after the loss of a loved one that are persistent for more than 3 months, including but not limited to the following:
  • suicidal thoughts
  • unrelenting depression
  • loss of appetite
  • panic attacks
  • hopelessness
  • anhedonia
  • increased irritability and anger
  • frequent nightmares
  • intrusive thoughts
  • lack of motivation
  • psychotic symptoms
• psychological factors affecting other medical conditions
	• autism spectrum disorder
	• attention deficit hyperactivity disorder
	• disruptive behavior disorders
	• oppositional defiant disorder
	• depressive disorders
	• bipolar disorder
	• psychosis
	• obsessive compulsive disorder
	• generalized anxiety disorder
	• separation anxiety disorder
	• post-traumatic stress disorder
	• panic disorder
	• adjustment disorders
	• conversion disorder
	• tic disorders

3.5 Child and Adolescent Mental Health (Psychology)

Age Group	Exclusions
• 5 - 18 years old	• Mild, situational and typical emotional and behavioral disturbances related to adjustment to life stressors • Family conflict causing distress for children • Behavioral difficulties not related to mental health conditions such as difficulties setting routines and boundaries for mealtimes, home setting, academic responsibilities, sleep, use of electronics, social difficulties, etc. • Significant Mental Health Difficulties/Psychosis (delusions, hearing voices, paranoia, significant deterioration in self-care and social functioning) • Eating Disorder • Anger management

Symptoms

- Low mood, Depression, Mood disorders
- Anxiety, including the following: panic disorder, social phobia, Generalized Anxiety Disorder, Obsessive Compulsive Disorder
- School refusal
- Complex behavior problems and emotional dysregulation
- Suspected mental disorder or emotional difficulties
- Adjustment reaction/disorder
- Post-traumatic stress disorder
- Self-harm, suicidal, or homicidal ideation or behaviors.

• Known Diagnoses

- Persistent low mood of at least two weeks that is impacting daily functioning such as school or social engagement, self-care, behavior, etc.
- Anxiety that is affecting a young person's level of functioning or development over a sustained period of time (3 or more weeks).
- Intense, repetitive, intrusive thoughts
- Behaviors affecting daily functioning and quality of life
- Obsessions and compulsions causing a functional impairment
- Reluctance/refusal to attend school for prolonged periods
- Experiencing emotional distress at the prospect of attending school
- Staying at home during school hours with parental knowledge
- Absence of severe antisocial behavior
- Attempts from the parent to engage their child in school attendance
- Children and adolescents who cannot engage with or benefit from recommended interventions, which leads to significant risk, including those who routinely are in crisis.
- Persistent symptoms of psychological distress that affect several areas of daily functioning (e.g., home and school) for a duration of at least 4-6 weeks.
- Children and adolescents responding with higher-than-expected stress levels to adverse life events
- Including loss and trauma
- Avoidance of reminders of traumatic event
- Persistent anxiety or low mood
- Intrusive thoughts/memories
- Hypervigilance
- Functional impairment
- At least three months after the incident
- Sleep disturbance
- Hypervigilance
- Functional impairment
- At least three months after the incident
- Symptoms last for one month or more

In situations of imminent risk, children and adolescents should be sent to Sidra ED. If a situation is urgent, meaning there is a risk for safety or a severe presentation of a mental health condition, please place an urgent referral.

3.6 Complex Care

Age Group	Exclusion
• < 16 years old	• 16 years old and over • conditions fitting into pre-existing clinic coordinating care between all required providers (e.g., clinics on eating disorders, cystic fibrosis, rehabilitation medicine, spina bifida, oncology, down syndrome, or neuromuscular clinic)

Symptoms

Specialty Background

- shared management model designed to bring benefit to children living with multiple complex chronic conditions and life limiting diseases
- aims to close any gaps in care, improve coordination of care, foster collaboration, and achieve excellence in the delivery of services to, and the outcomes for, every child in our care who lives with complex long-term medical conditions

Symptoms and Referral Criteria

- complex chronic medical conditions, with multisystem involvement, multiple medications, multiple specialty inputs, frequent and prolonged hospital admissions, dependency on advanced technology, and need for optimal coordination of care and close monitoring
- dependency at least part of each day on "non-invasive" ventilation techniques, e.g., bi-level positive airway pressure mode/ continuous positive airway pressure, and on other devise-based support, including tracheostomy tube, nasopharyngeal tube, suctioning, home oxygen support, tube feeding
- health problems affecting ≥ 3 organ systems and ≥ 3 medical sub-specialists involved in child's care

3.7 Dentistry

Age Group	Exclusions
• 0-14 years old referred by Hamad Dental Center only • Referrals received internally from Sidra Plastic & Craniofacial division	

Symptoms & Known Diagnoses

Orthodontics referral to Sidra, the following criteria:

- Pediatric patients with defects of cleft lip and palate and other craniofacial anomalies.
- Pediatric and adult patients with malocclusions that are not amenable to orthodontic treatment alone due to skeletal deformity. This will ordinarily apply to those patients who will have completed facial growth prior to orthognathic surgery.
- Pediatric patients with sleep apnea not amenable to other treatments such as CPAP (as determined by sleep studies).
- Pediatric patients with skeletal anomalies with occlusal disturbance as a result of trauma or pathology.
- Pediatric patients with complex medical issues that require close liaison with medical personnel.

Pedodontics referral to Sidra, the following criteria is accepted for patients below the age of 14 years old:

- Pediatric patients that cannot receive dental care at HMC but limited to those with bleeding tendency, receiving, or going to receive chemotherapy.
- Pediatric patients who need to get dental treatment under general anesthesia need to be seen by HMC pediatric anesthesia team first. Patients are only referred to Sidra if the anesthesia team states that those patients cannot be treated at HMC facilities.

3.8 Dermatology

Age Group	Exclusions
• < 18 years old	• N/A • any disease of hair, nail and mucus membrane that can be diagnosed or treated at primary care

Symptoms	Known Diagnoses
Any Symptoms Indicative of Diseases of Hair, Nail and Mucus Membrane that Cannot be Diagnosed or Treated at Primary Care	Any Diseases of Hair, Nail and Mucus Membrane that Cannot be Treated at Primary Care
• acute and chronic dermatitis • inflammatory skin conditions and rashes • more than one or recalcitrant skin infection • blistering disorders • hemangiomas and vascular malformations • birthmarks • disorders of pigmentation • genetic skin diseases • disorders of the hair, nails and mucous membranes • benign or malignant skin tumors for diagnosis	• moderate and severe atopic dermatitis • moderate and severe psoriasis • moderate and severe acne/ rosacea/ perioral dermatitis • disfiguring, ulcerated or complicated infantile hemangiomas

3.9 Developmental Pediatrics

Age Group	Exclusions
• < 18 years old	• physical disability without learning or social communication difficulties • mental health conditions

Symptoms	Known Diagnoses
Initial multidisciplinary assessment for the following: • delay in academic skills (performing two years below expected for chronological age) • moderate to severe delay in two or more of the following skills: gross motor, fine motor, communication and languages, self-help, social skills • difficulties with attention and concentration severe enough to prevent academic progress • isolated moderate or severe delay in speech and language when associated with one or more of the autism red flags • permanent severe hearing or vision impairment that needs initial specialist developmental assessment to exclude or detect associated conditions	Initial multi-disciplinary follow-up until stability for the following: • speech and language disorders • attention deficit hyperactivity disorder • autism spectrum disorder • congenital idiopathic microcephaly • congenital microcephaly and other genetic syndromes known to be associated with developmental delay • Down syndrome • global developmental delay • intellectual disability • other genetic disorders speech and language disorders associated with development delay • sensorineural hearing loss • Specific learning disorders such as Dyslexia, Dysgraphia and Dyscalculia

3.10 Endocrinology

Age Group	Exclusions
• Below 14 years except GHD and DM patients and DM	• > 14 years old with endocrine diagnosis, except GHD (Growth Hormone Deficiency)

Symptoms

DIABETES

Excessive thirst and frequent urination with any of the following:

- Elevated random blood glucose > 200 mg/dl
- Fasting blood glucose > 126 mg/dl
- Hba1c > 6.5%

T1DM

- Expats: <5 years old
- National: Any age

T2DM

- Expats: T2DM + complications
- Nationals: T2DM

PRECOCIOUS PUBERTY OR PREMATURE FEMALE THELARCHE

- Girls < 8 years: breast development
- Boys < 9 years: testicular enlargement

PREMATURE ADRENARCHE AS FOLLOWS:

- Girls < 7 years with one or more of the following signs: pubic hair, axillary hair, body odor, clitoral enlargement (not breast development)
- Boys < 7 years with one or more of the following signs: pubic hair, axillary hair, body odor, penile enlargement, accelerated growth (not testicular enlargement < 4 ml or < 2.5 cm)

DELAYED PUBERTY AS FOLLOWS:

- **Girls:** no breast development by 13 years of age, or no menses by 15 years of age
- **Boys**: no testicular enlargement by 14 years of age (< 4 ml or < 2.5 cm)

GROWTH (SHORT STATURE):

- HSTD < - 2 in any child who is older than 2 years of age
- HTSD >1 SD away from MPH
- Small for gestion (SGA) with no catch up in height after 2 years of age
- Skeletal dysplasia after 2 years of age.
- Syndromes with SGA and no catch up in their height after 2 years with normal IQ
- Turner syndrome. > 2 years.
- Noonan syndrome. > 2 years

Known Diagnoses

- **Type 1 Diabetes Mellitus**
  1. <5 years old (Expats)
  2. National: Any age (National)
- **Type 2 Diabetes Mellitus**
  1. T2DM + complications (Expats)
  2. T2DM (National)
- **Other Types of Diabetes**
  1. MODY
  2. Neonatal DM
- **Growth Disorders**
  - GHD
  - Refer to details under growth disorders in Symptoms section
- **Puberty Disorders** (Refer to details under Symptoms section)
- **Pituitary Disorders** (Refer to details under Symptoms section)
- **Thyroid Disorders** (Refer to details under Symptoms section)
- **Calcium and Parathyroid Disorders** (Refer to details under Symptoms section)
- **Adrenal Disorders and Hypoglycemia** (Refer to details under Symptoms section)
- **Disorders of Sexual Development** (Refer to details under Symptoms section)
- **Obesity** (Refer to details under Symptoms section)
- **Long-Term Endocrine Effect of Pediatric Cancer**

Symptoms (continued):

- Failure to thrive (FTT) > 2 years with both weight and height <-2SD and after 6 months failure of nutritional support and normal FTT blood work up.
- Slow Growth Velocity (GV) for age twice during 6-month interval with normal weight for age

Exclusion:

- All children with height > -1 SD will be referred back to general pediatrics.
- FTT at presentation who has slow growth velocity or far away from mid-parental height or have low IGF1 or delayed bone age is not an indication to refer to endocrine, full investigations and high caloric meal plan must be done first for at least 6 months

Mid parental height (MPH) is a MUST be in each growth referral.

There MUST be a recent growth data at least in the last 6 months or the referral will be rejected.

OBESITY

- Early onset obesity beginning before 5 years of age
- Morbid obesity BMI >40mg/m2 or BMI z-score >+2.8
- Obesity with Evidence of hypothyroidism, if only subclinical hypothyroidism (TSH 5-9.5 with normal T4), then refer to General pediatrics.
- Obesity and short stature HTSD < -2SD.
- Obesity with hypertriglyceridemia
- Obesity and high HBA1C > 5.8 %.
- Obesity with Abnormal OGTT prediabetes or diabetes range (fasting BG > 100mg/dL, 2 hr. PP > 140 mg/d).
- Obesity with evidence of PCO (poly cystic ovaries)

Exclusion:

- Obesity with Evidence of subclinical hypothyroidism (TSH 5-9.5 with normal T4), then refer to General pediatrics.
- Simple Obesity (BMI < 40mg/m2 or BMI z-score < +2.8)

ADRENALS

2 OR MORE OF THE FOLLOWING CRITERIA

- Unexplained weight loss or gain (After Gen Peds Review)
- Hyperpigmentation of the skin and chronic fatigue not explained by usual causes (After Gen Peds Review)
- Hypoglycemia (After Gen Peds Review)
- Salt cravings and hypotension
- Hirsutism (after review by general pediatrics)
- Congenital adrenal hyperplasia with no evidence of ambiguous genitalia
- Menstrual irregularity before the age of 14 years (but not in the first year of menarche) with signs of poly cystic ovary syndrome.
- Adrenal insufficiency.
- Hypoaldosteronism.
- Pesudohypoaldosteronism
- Cushing syndrome
- Undescended testicles
- Hypospadias

HYPOGLYCEMIA

- Non-kenotic (worked up by General pediatrics)
- IUGR hypoglycemia

THYROID

There MUST be a recent TFT w/in 4 months from the referral.

- TSH >9 confirmed Twice at least 1 months apart and normal T4 for age.
- Low T4 for age confirm Twice.
- Any evidence of hyperthyroidism: low TSH and high Free T4 twice.
- Graves' disease or hyperthyroidism: heat intolerance with tachycardia, tremors with unexplained weight loss, (High FT4 + suppressed TSH)
- Congenital hypothyroidism.
- Acquired hypothyroidism: cold intolerance with bradycardia, goiter (high TSH, low FT4)
- Goiter regardless of the thyroid function
- Thyroid ill-defined mass
- Thyroid nodule
- Thyroid tumors
- Goiter (enlargement of the thyroid gland)

Exclusion:

All forms of sub-clinical hypothyroidism with (TSH 5 - 9.5 + Normal T4) will be referred to General pediatrics either in PHCC/ General Pediatrics.

DSD (Disorders of Sexual Differentiation)

- Small penile length
- Bilateral inguinal hernia
- Ambiguous genitalia
- Gynecomastia

3.11 Gastroenterology

Age Group	Exclusions
• < 18 years old	• N/A

Symptoms	Known Diagnoses
• abdominal distension, with associated obstructive symptoms • altered bowel habits, e.g., overflow diarrhea (see General Pediatrics for specific constipation symptoms for referral) • conjugated jaundice after doing split bilirubin • dyspepsia • dysphagia • faltering growth and weight loss with gastroenterology symptoms • gastrointestinal bleeding (refer to General Pediatrics when associated with anal fissure and constipation) • hepatomegaly when associated with abnormal liver function tests, and/or any signs of chronic liver disease • liver dysfunction • malnutrition with gastrointestinal symptoms • recurrent vomiting with one or more of the following red flags: ▪ hematemesis after exclusion of swallowed blood from nose bleed or cracked nipple ▪ blood in stool after exclusion of infective or acute surgical causes, e.g., intussusception ▪ chronic diarrhea after no response to cow's milk protein exclusion ▪ high state or risk of atopy if no response to cow's milk protein exclusion • splenomegaly when associated with abnormal liver function tests, and/or any signs of chronic liver disease	• achalasia • alpha-1-antitrypsin deficiency • autoimmune enteropathies • autoimmune hepatitis • biliary atresia • celiac disease • chronic liver diseases • complex food allergy • congenital enteropathies • early onset inflammatory bowel diseases • end-stage liver disease • eosinophilic gastrointestinal diseases • functional and neuromuscular gastrointestinal disorders • functional gastrointestinal disorders • gastro-esophageal reflux with one or more of the following red flags: ▪ hematemesis after exclusion of swallowed blood from nose bleed or cracked nipple ▪ blood in stool after exclusion of infective or acute surgical causes, e.g., intussusception ▪ chronic diarrhea after no response to cow's milk protein exclusion ▪ high state or risk of atopy if no response to cow's milk protein exclusion • gastrointestinal polyps • gastrostomy tube patients • Helicobacter pylori infections not responsive to standard treatment of Helicobacter pylori • intestinal failure and long-term total parenteral nutrition • lactose intolerance • inflammatory bowel disease • irritable bowel syndrome • metabolic liver disease • esophagitis • pancreatitis • peptic ulcer disease • portal hypertension • post-liver transplantation • protein-losing enteropathy • short bowel syndrome • viral hepatitis • Wilson's disease

3.12 General Pediatrics

Age Group	Exclusions
• < 18 years old • < 5 years old for suspected mental health issues	• 5-18 years old for suspected mental health issues; refer to Sidra Medicine's Child and Adolescent Mental Health per their criteria

Symptoms	Known Diagnoses
• chronic abdominal pain for >3 weeks • chronic constipation for >3 months, and not responding to treatment • chronic diarrhea for >3 weeks • chronic lymphadenopathy for >1 month, due to a suspected non-tuberculosis cause, and requiring workup • enuresis failing initial management • failure to thrive, with weight less than 2nd percentile (approximately equivalent to a Z-score of -2), for gestation-corrected age and sex when plotted on an appropriate growth chart, and who have decreased velocity of weight gain that is disproportionate to growth in length • febrile seizures • first febrile urinary tract infection in children <2 years of age • obesity due to a non-endocrine cause, and failing initial management • recurrent febrile urinary tract infections for >2 infections • recurrent vomiting not associated with gastroenterological causes (e.g., gastritis, cyclic vomiting, gastroesophageal reflux disease) • short stature due to a non-endocrine cause, and requiring workup • suspected mental health presentations for children <5 years old. Refer older children to Sidra Medicine's Child and Adolescent Mental Health per their criteria • uncomplicated headaches, excluding severe recurrent ones (likely migraines that failed to respond to first line headache treatment strategies)	• bronchial asthma • iron deficiency anemia failing initial treatment • gastroesophageal reflux disease failing initial management

3.13 General and Thoracic Surgery

Age Group	Exclusions
• 18 years old and below	• complex urologic anomalies • circumcision without clearly defined co-morbidities • constipation as sole diagnosis

Symptoms and Known Diagnoses

Overall
- children requiring surgery (open or laparoscopic) for thoracic (excluding cardiac) or abdominal and pelvic lesions
- common head and neck lesions, solid tumors of chest or abdomen

Abdominal/Gastrointestinal
- esophageal surgery (e.g., gastro esophageal reflux disease, achalasia, duplication cysts, strictures)
- stomach, small bowel, colon surgery (e.g., atresia, stenosis, masses)
- solid organ tumors or any masses (e.g., Wilms' tumor, neuroblastoma, adrenal masses, sacrococcygeal teratoma, mesenteric cysts, ovarian cysts)
- complications of inflammatory bowel disease, anorectal malformations, Hirschsprung's disease, bariatric surgery
- surgery for the liver, gallbladder, spleen and pancreas
- abdominal wall defects or masses (e.g., urachal remnant, omphalomesenteric duct/cyst)
- hernia and hydrocele repairs (e.g., inguinal, umbilical, epigastric or post-operative)
- bariatric surgery in adolescents

Head and Neck
- endocrine surgery (e.g., thyroidectomy, parathyroidectomy)
- congenital malformations (e.g., branchial cleft cyst, thyroglossal duct cyst, cystic hygroma, lymphangioma, dermoid)

Thoracic/Vascular
- bronchoscopy
- pulmonary surgery for tumor, congenital malformation, infection, biopsy
- chest wall deformity (e.g., pectus excavatum, carinatum)
- mediastinal cysts, masses, teratomas or tumors of any kind
- diaphragmatic procedures (e.g., plication, repair)
- vascular procedures (e.g., vascular ring release, aortopexy, dialysis access, central venous access)

Skin/Soft Tissue/Musculoskeletal
- soft tissue mass of unknown etiology, dermoid cysts, inclusion cyst, lipoma, lymphadenopathy, after referral to and review by the Infectious Diseases service
- breast mass, axilla mass
- vascular malformations, lymphangioma

Fetal Consultation
- fetal pre-natal consultations for family counselling (e.g., diaphragmatic hernia, duodenal atresia)

Endoscopic Procedures
- minimally invasive technique (e.g., robotic surgery, thoracoscopically, laparoscopically)
- endoscopy of the esophagus, stomach, trachea or colon for intervention or dilation or removal foreign body

Genito-Urinary
- solid tumors (e.g., Wilms' tumor, adrenal masses)
- undescended testicle and circumcision in presence of multiple, clearly defined co-morbidities (patients over 1 year old unless medically indicated)
- gastro-intestinal component of cloaca

3.14 Genetics

Age Group	Exclusions
▪ Under the age of 18 years old	▪ Above the age of 18 years old ▪ Isolated speech delay below the age of 3 years

Symptoms	Known Diagnoses
• Dysmorphic Features. • Single Major Congenital Anomaly or Multiple Major and/or minor anomalies. • Disorder of sex development or puberty disorders (After HMC/Sidra Pediatric endocrine evaluation). • Abnormal growth pattern (FTT, Short Stature, overgrowth and/or hemihypertrophy). • Evidence of a connective tissue disorder (extreme joint laxity, poor wound healing, or a marfanoid habitus). • Progressive neurologic conditions known to be genetically determined. • Syndromic visual impairment • Syndromic hearing loss. • Congenital hypotonia or hypertonia. • Developmental delay or intellectual disability. • Unusual skin findings such as multiple types of lesions, multiple lipomas, numerous hypo- or hyperpigmented lesions, and albinism. • Confirmed diagnosis of Autism Spectrum Disorder with dysmorphic features or seizure. • Unusual behaviors, especially when associated with minor malformations and developmental delay or intellectual disability. • Neuromuscular disorders. • Syndromic obesity. • Skeletal dysplasia	• Recognized genetic or chromosomal syndrome requiring follow-up with clinical genetics.

3.15 Genetics (Counseling)

Age Group	Exclusions
• Under the age of 18 years old	• Above the age of 18 years old • Suspected Autism • Unclear and nonspecific referral order • Child with hemoglobinopathy trait, without evidence of both parents being carriers. • Referrals for initial genetic result disclosure for tests previously ordered by non-genetic providers • Isolated speech delay below the age of 3 years • External referrals for hyperlipidemia not evaluated by HMC or Sidra Endocrinologist

Symptoms	Known Diagnoses
• Confirmed isolated Autism Spectrum Disorder • Non-syndromic hearing loss • Ophthalmological disorders for genetic testing or with positive genetic testing results such as isolated microphthalmia, retinal dystrophy, blindness. • Hematological disorders for genetic testing or with positive genetic testing results such as clotting disorder, bleeding disorder, hemoglobinopathy. • Neurological disorders for genetic testing or with positive genetic testing results such as hereditary spastic paraplegia, epilepsy. • Primary immunodeficiency for genetic testing or with positive genetic testing results. • Pulmonological disorders suspected to have a genetic etiology for genetic testing or with positive genetic results, such as cystic fibrosis, primary ciliary dyskinesia. • Endocrinological disorders for genetic testing or with positive genetic testing results such as isolated childhood obesity, suspected genetic types of diabetes. • Non-syndromic kidney disorders for genetic testing or with positive genetic testing results. • Rheumatological disorders suspected to have a genetic etiology for genetic testing or with positive genetic testing results. • Dermatological disorders for genetic testing or with positive genetic testing results such as ichthyosis, epidermolysis bullosa. • Gastrointestinal disorders for genetic testing or with positive genetic testing results. • Cancer diagnosis requiring genetic testing or with positive genetic test results. • Positive research result requiring clinical confirmation. • Family history of birth defect/congenital anomaly, a condition suspected to be genetic, a confirmed chromosomal disorder, or a confirmed single-gene disorder.	• Known genetic or chromosomal disorder requiring genetic counseling • Known genetic or chromosomal condition for family testing. • Known cancer syndrome for genetic counseling.

3.16 Genetics (Metabolic)

Age Group	Exclusions
• Under the age of 18 years old	• Above the age of 18 years old • Heterozygous Hyperlipidemia • Secondary hyperlipidemia • Obesity for weight management

Symptoms	Known Diagnoses
• Developmental regression, Cognitive deterioration after intercurrent illness. • Unexplained hypotonia. • Unexplained stroke-like symptoms. • Intermittent ataxia, associated with intercurrent illness. • Recurrent / Refractory Seizures and epileptic encephalopathy • Unexplained refractory hypoglycemia. • Any abnormal Laboratory / Imaging suggestive of Inborn Errors of Metabolism. • Positive Family History of Inborn Errors of Metabolism. • An abnormal newborn screening result. • Symptoms of a metabolic disorder such hepatosplenomegaly, liver impairment, cyclic vomiting (After GI evaluation). • Cardiomyopathy	Any patient with confirmed/suspected Inborn Errors of Metabolism (IEM): ▪ Urea Cycle Disorders ▪ Organic Acidurias ▪ Amino Acid Disorders ▪ Biotinidase deficiency, Biotin / Thiamin transporter defects ▪ Cobalamin defects ▪ Carbohydrate Metabolism Disorders ▪ Fatty Acid Oxidation Disorders ▪ Mitochondrial Disorders ▪ Lysosomal Storage Diseases ▪ Neurotransmitter Disorders ▪ Peroxisomal Disorders ▪ Other Inborn Errors of Metabolism: Creatine disorders, Purines & Pyrimidines disorders, Congenital Disorders of Glycosylation

3.17 Hematology and Oncology

Age Group	Exclusions
• <18 years old	• patients with generalized lymphadenopathy with any abnormalities of peripheral blood counts and who are asymptomatic should have urgent referral to the outpatient clinic following discussion with the attending hematologist/oncologist on call • patients with generalized lymphadenopathy with any abnormalities of peripheral blood counts suggestive of leukemia or if they have concurrent systemic symptoms should be referred to the inpatient or emergency service for appropriate admission and acute care • patients with radiologically diagnosed tumors should be referred to the inpatient or emergency service for appropriate admission and acute care • masses or swellings: asymptomatic patients with masses suggestive of neoplasms should have urgent referral (not routine) to the outpatient clinic following discussion with the attending hematologist/ oncologist on call. • patients with masses and symptoms associated with the mass should be referred to the inpatient or inpatient service for appropriate admission and acute care • acute hemolytic anemia should be referred to the emergency service for appropriate acute care. • other hematologic emergencies, e.g., venous thromboembolism, bleeding disorders, sickle cell disease crises should be referred to the inpatient or emergency service for appropriate admission and acute care • benign hematologic abnormalities do not require referral to the hematology clinic, including thalassemia trait, sickle cell trait, minor blood parameter abnormalities (e.g. mild neutropenia, mild thrombocytopenia, mild anemia or abnormal coagulation testing without a history of bleeding/bruising), family history of thrombophilia

Symptoms	Known Diagnoses
• localized lymphadenopathy, with painless, enlarged lymph nodes that are persistent or increasing in size • generalized lymphadenopathy without peripheral blood count abnormalities • symptomatic or significant anemia symptomatic, persistent or significant thrombocytopenia and neutropenia • easy bruising and bleeding	• malignancy and on active therapy initiated elsewhere for continuation of therapy (e.g., leukemia, lymphoma, solid tumor, brain tumor) • malignancy and after completion of therapy for continued follow-up and surveillance (e.g., leukemia, lymphoma, solid tumor, brain tumor) • stem cell transplant for diagnoses known to benefit from autologous or allogeneic stem cell transplantation (e.g., following: neuroblastoma, recurrent lymphomas, high-risk leukemia's, thalassemia, aplastic anemia, primary, severe immune deficiencies, metabolic disorder, e.g., glycogen storage diseases) • iron deficiency, hemoglobinopathies (thalassemia and sickle cell disease), hereditary hemolytic disorders • immune thrombocytopenia, congenital thrombocytopenia disorders • autoimmune neutropenia, congenital neutropenic disorders • hemophilia, von Willebrand's disease, fibrinogen disorders

3.18 Infectious Diseases

Age Group	Exclusions
• < 18 years old	• routine immunizations, except for chronic patients who are followed at Sidra Medicine • initial screening tuberculosis (< 2 years old for purified protein derivative test, 2 - 18 years for QuantiFERON test, chest x-ray for both age groups) • for latent tuberculosis infection after exposure to tuberculosis cases, refer for initial screening to the HMC Communicable Disease Center as this monitors tuberculosis activity in the country and reports to the World Health Organization • Hepatitis

Symptoms	Known Diagnoses
• chronic ear discharge that has lasted for more than 6 months • fever after return from malaria and typhoid endemic areas • fever of unknown origin > 38.3°C (101°F) at least once per day for ≥8 days, with no apparent diagnosis after initial outpatient or hospital evaluation • lymphadenopathy when tuberculosis or other infectious diseases are suspected • prolonged fever with weight loss that has lasted for more than 7 days • consultation for tuberculosis patients admitted to Sidra Medicine • follow-up consultation for tuberculosis patients discharged from Sidra Medicine • follow-up of bone and joint infections after discharge from inpatient • follow-up of cytomegalovirus and Epstein-Barr virus infections in immunocompromised patients • follow up of newborn babies who were born to HIV positive mothers	• tuberculosis adenitis • brucellosis • Bacille Calmette–Guerin lymphadenitis • cytomegalovirus • Epstein-Barr virus • human immunodeficiency viruses; suspected or confirmed • latent tuberculosis infection • lymphadenopathy to rule out infectious causes • malaria • osteomyelitis • septic arthritis • sexually transmitted diseases • syphilis • toxoplasmosis • tuberculosis disease (any organ involvement); suspected or confirmed • typhoid fever

3.19 Neonatology (High-Risk Infant Follow-Up)

Age Group	Exclusions
From 3 months corrected gestational age to 18 months corrected gestational age. Age range: 1. Gestation: babies born less than 32 weeks (≥ 32 weeks excluded) 2. Weight: babies born with a birth weight of less than 1500 grams	1. Infants with diagnosed developmental problems or syndromes 2. Problems arising outside the neonatal period 3. Infants with diagnosed neurological disorders

Symptoms	Known Diagnoses
Not applicable since this is a developmental screening service	Babies born prematurely at less than 32 completed weeks or babies who had the problems listed below during the neonatal period can be referred to the High-Risk Infant follow up clinic for developmental assessment / follow up. 1. Neurological problems (During the Neonatal period only) such as: • Hypoxic ischemic encephalopathy (HIE) grade 2 or 3 (regardless of whether received therapeutic hypothermia or not) • Intraventricular hemorrhage (IVH) - grade 3 or 4 • Ventriculoperitoneal (VP) shunt or similar • Meningitis • Encephalitis • White matter injury (periventricular leukomalacia, PVL) • Cerebral infarcts and stroke 2. Cardiac limited to TGA and single ventricle physiology 3. Gastrointestinal conditions such as • surgical • Gastroschisis • Omphalocele • Tracheoesophageal fistula (long gap and long stay on NICU) • NEC • CDH (congenital diaphragmatic hernia) • Short bowel syndrome • Intestinal failure 4. Persistent Pulmonary Hypertension of the Newborn (PPHN) treated with inhaled nitric oxide and or adjunct pulmonary vasodilator therapy 5. ECMO treatment 6. Hyperbilirubinemia needing exchange transfusion 7. Other conditions • Hydrops fetalis • Congenital viral infections • Septic shock syndrome 8. Fetal surgery or intrauterine blood transfusion Note: All referrals will be triaged for appropriateness for HRIF follow up. HRIF provides a screening service – babies with identified developmental problems will be referred to appropriate services

3.20 Neonatology (Prenatal Consult)

Age Group	Exclusions
• pregnancy with viable fetus	• N/A

Symptoms	Known Diagnoses
• viable pregnancies for expert information during course of pregnancy and after delivery, and coordination of postnatal care with other medical and surgical service lines	• smaller than expected fetus for gestational age status • macrosomia (fetus larger than expected for its gestational age) • multiple gestation status (more than one fetus in pregnancy) • anatomic, physiologic, and/or genetic anomalies (e.g., congenital diaphragmatic hernia, congenital heart defects and arrhythmias, pulmonary and airway malformations, gastrointestinal malformations, renal dysgenesis, malformations, central nervous system malformations and peripheral neurologic diseases, inborn errors of metabolism) • for such pregnancies, given the concern of fetal and neonatal complications, the opportunity for the mother and family to discuss the pregnancy and expected fetal-neonatal course is an essential information resource, particularly for informed medical decision making and appropriate allocation of birth and early treatment after birth

3.21 Nephrology

Age Group	Exclusions
• < 18 years old	• N/A

Symptoms	Known Diagnoses
• blood in urine (hematuria) • change in urine color • high blood pressure persistently (more than one encounter) higher than the 95th percentile for age, gender, and height; patients known to have hypertension secondary to cardiac abnormalities at the time of referral should be referred directly to cardiology • kidney manifestation of systemic diseases • protein in urine	• abnormal structure of kidney or urinary tract • acute kidney injury • chronic kidney disease • cystic kidney • dysplastic kidney • ectopic/horseshoe kidney • glomerulonephritis • hypercalciuria • hypertension • kidney stones • nephrocalcinosis • nephrogenic diabetes insipidus • proteinuria • diabetes with renal involvement • renal tubular acidosis • single kidney • spina bifida • ESKD- End Stage Kidney Disease and Kidney Transplantation • renal involvement in systemic lupus erythematosus/ henoch-schönlein • vesicoureteral reflux • serum electrolytes abnormalities

3.22 Neurology

Age Group	Exclusions
• < 18 years old	• autistic spectrum disorder • attention deficit hyperactivity disorder • febrile seizures to be directed to Sidra Medicine's General Pediatrics • uncomplicated headaches to be directed to Sidra Medicine's General Pediatrics • isolated speech delay • known cerebral palsy for rehabilitation

Symptoms	Known Diagnoses
• unprovoked seizures • severe disabling headaches (likely migraine that failed to respond to first line headache treatment strategies) • post-concussion syndrome • recurrent loss of consciousness • movement disorders • abnormal involuntary movements • vertigo • hypotonia	• complications of central nervous system infection • developmental regression • epilepsy • microcephaly/ macrocephaly • movement disorders • neuro-cutaneous disorders • neuro-genetic and neuro-metabolic disorders refractory epilepsy • neuromuscular disorders • neurocutaneous syndromes

3.23 Neurosurgery

Age Group	Exclusions
• < 18 years old	• N/A

Symptoms	Known Diagnoses

- abnormal head shape
- enlarged head (macrocephaly)
- midline spinal dimple or pit
- scalp lumps
- any infants, children, or adolescents requiring operative treatment within the central nervous system, spinal cord, meninges, spine, pituitary gland, or peripheral nerves
- congenital brain and spinal cord malformations (including spina bifida and tethered spinal cord syndrome, cared for with a multidisciplinary medical surgical team)
- benign and malignant tumors of the central nervous system, spinal cord, meninges or spine
- disorders of the craniofacial skeleton (e.g., craniosynostosis and craniofacial disorders) will be cared for by our pediatric neurosurgeon as part of a craniofacial team
- hydrocephalus
- infants and children with infections of the central nervous system, including epidural abscess, subdural empyema, or brain abscess, are preferably cared for by a pediatric neurosurgeon in conjunction with specialists in pediatric infectious disease
- children over 3 years old with spasticity from cerebral palsy, who may be candidates for neurosurgical interventions (baclofen pump therapy or selective dorsal rhizotomy)

3.24 Ophthalmology and Orthoptics

Age Group	Exclusions
• < 14 years old for listed symptoms and known diagnoses • < 18 years old for follow-up of previously diagnosed congenital anomalies • > 18 years old for ongoing care of strabismus	• children > 7 years old with blurred vision, unable to see board, need glasses checks, need routine screening (refer to community optometry) • itchy eyes, small eyelid cysts, pink eye, or other common primary care eye problems (refer to pediatrician)

Symptoms	Known Diagnoses
Pediatric ophthalmologists care for disease of the eye, and the associated structures. This includes medical and surgical aspects of the child's care. • sudden loss of vision • double vision • chronic red eye or eye pain • infections involving the eye ocular or periocular inflammation not responding to initial topical and/ or systemic antibiotic therapy or not clearing within 3 weeks • suspected abuse and possibility of eye injury • suspected cataracts, glaucoma, or blindness • suspected herpes simplex or zoster • Suspected need for eye surgery • risk factors for strabismus or amblyopia (e.g., family history of amblyopia or orbital or eyelid hemangioma)	• care of congenital or genetic ocular anomalies or infections (e.g., aniridia, toxoplasmosis) • cataracts, glaucoma, or blindness • congenital nystagmus • early-onset nystagmus • strabismus or amblyopia (lazy eye) • systemic syndromes, metabolic disorders, or chromosomal abnormalities with possible ocular involvement (e.g., juvenile idiopathic arthritis, galactosemia, diabetes mellitus, Marfan syndrome, down syndrome)

3.25 Optometry

Age Group	Exclusions
• < 8 years old for routine refraction and glasses evaluation • 8-15 years old for complex refraction (e.g., nonverbal children, low vision, irregular astigmatism related to pathology, keratoconus or trauma, developmentally delayed in whom there is reason to suspect eye disease) • < 18 years old for complex contact lens fittings • 0-17 years old for low vision amongst visually impaired children and adolescents	• N/A

Symptoms	Known Diagnoses
• poor vision or delayed attainment of vision related developmental milestones • severe refractive errors or a strong family history of severe refractive errors • difficult refraction for special needs children (e.g., autism, developmentally delayed, down syndrome, attention-deficit hyperactivity disorder • low vision, legal blindness, or in need of low vision aids (best corrected visual acuity 20/200 or better) • medically necessary contact lens (rigid gas permeable, scleral, hybrid, soft, prosthetic)	• children with keratoconus, post keratoplasty or other corneal scarring secondary to trauma or pathology who do not achieve good acuity with spectacles and require rigid gas permeable /hard lenses • children with corneal opacities, aniridia, microcornea, photophobia secondary to iris trauma who require prosthetic lenses • children who have had cataract surgery in need of aphakic contact lens fitting • children who have anisometropia and in need of contact lenses due to aniseikonia • low vision caused by albinism, retinal dystrophies (e.g., rod-cone dystrophy, retinitis pigmentosa), Retinopathy of prematurity, diabetic retinopathy, genetic disease or glaucoma

3.26 Orthopedics

Age Group	Exclusions
• < 14 years old for listed symptoms and known diagnoses • > 14 years old congenital patients for listed symptoms and known diagnoses	• infants, children, and adolescents with suspected malignant bone and soft tissue tumors (refer to an HMC orthopedic oncology surgeon) • disorders pertaining to the hand (refer to Sidra Medicine's Plastic and Craniofacial service) • rheumatological conditions (refer to a pediatric or adult rheumatologist, e.g., juvenile arthritis) • osteomalacia or other metabolic conditions without skeletal deformity (e.g., genu valgum) refer to an endocrinologist • neuromuscular disorders (e.g., cerebral palsy, spina bifida, muscular dystrophies, etc.) without upper or lower limb deformities, hip dislocation, and/or spinal deformity, refer to pediatric rehabilitation medicine or pediatric neurology as appropriate • Pediatric fractures that require closed treatment (non-surgical), Normal variant cases: Flat Feet, In-toeing/Out-toeing, Knock Knees, Idiopathic Tip-Toe Walking, Bow Legs, Abnormal gait, curly toes

Symptoms & Known Diagnoses

Pediatric Orthopedic Service will care for pediatric patients who require general anesthesia and for pediatric patients who are referred with complex medical need and/or who fall within the major diagnostic categories listed thereof:

- All polytrauma patients 0-14 years old
- Patients 0-14 years old with congenital deformities
- Patients 0-14 years old with Musculoskeletal infections
- Patients 0-14 years old with fractures that require open treatment (surgical)
- Patients 0-18 years old with neuromuscular conditions
- Patients 0-18 years old with limb discrepancy, deformities, upper and lower limbs
- Patients 0-18 years old that require spine surgery for deformity (confirmed radiologically)
- Musculoskeletal oncology patients 0-18 years old according to MoPH guidelines

3.27 Otolaryngology (Ear, Nose and Throat)

Age Group	Exclusions
• < 3 years who may require a general anesthesia • < 18 years with below listed conditions • < 18 years with complex medical needs and/or fall within final bullet below (of the diagnosis criteria)	• children with snoring, otitis media ('ear infections', hearing loss), or chronic tonsillitis to a primary care physician or community pediatrician to refer to secondary services, or to HMC's Ear, Nose and Throat Department

Symptoms

Specialty Background

Pediatric otolaryngology is a surgical discipline devoted to surgical therapy of the ear, nose and throat.

Major Diagnostic Categories Treated

- congenital malformations of head and neck structures, including: ear (e.g., prominent ear deformity, microtia or ear atresia), nasal passages, oral cavity, laryngo-tracheal airway, and neck (e.g., branchial cysts/fistulae, neck lumps, thyroglossal cysts, cystic hygroma's)
- neoplasms or vascular malformations of head and neck structures, including laryngo-tracheal airway
- infants and children requiring operative airway endoscopy for the evaluation of stridor
- infants and children with sensory impairments, including conductive or sensorineural hearing loss, vertiginous disorders, voice disorders, facial nerve paralysis, oro-motor dysfunction as evidenced by speech, swallowing, or drooling problems
- infants and children with acquired disorders involving the ear (e.g., cholesteatoma), the pharynx (e.g., obstructive sleep apnea), laryngo-tracheal airway (e.g., post-intubation laryngo-tracheal stenosis), aero-digestive tract (e.g., foreign body aspirations), facial skeleton (e.g., maxillofacial trauma)
- infants and children with complicated infections that may require surgery involving the ear (e.g., acute mastoiditis), the nose and para-nasal sinuses (e.g., acute or chronic rhino- sinusitis), the pharynx (e.g., recurrent adeno-tonsillitis, retropharyngeal abscess), the airway (e.g., epiglottitis), and the neck (e.g., parapharyngeal abscess)
- infants and children with medical conditions that increase operative risk (e.g., congenital heart disease, chronic lung disease, and other syndromes) who must undergo a common ear, nose and throat procedure (e.g., adeno-tonsillectomy)

3.28 Plastic and Craniofacial Surgery

Age Group	Exclusions
• Pediatric and adult	• N/A

Symptoms and Known Diagnoses

Pediatric Patients (18 years and below) with Major Diagnostic Categories Treated:

- cleft lip and palate and related cleft nasal deformity
- congenital ear deformities (e.g. constricted, hypoplastic, microtia, anotia)
- skull deformities: plagiocephaly, craniosynostosis
- craniofacial syndromes (e.g., Pierre robin, hemifacial microsomia; Goldenhar, velocardiofacial/22q11 deletion, fibrous dysplasia, neurofibromatosis, Apert, Crouzon, Pfeiffer, Carpenter, Saethre Chotzen, Treacher Collins, Nager, Stickler, craniofrontal nasal dysplasia, Binder, hemifacial hyperplasia, etc.)
- maxillofacial/orthognathic conditions
- facial palsy
- acute facial trauma (facial fractures, lacerations, nerve injuries)
- acute hand trauma (hand fractures, tendon/nerve/vascular injuries)
- syndactyly and polydactyly of the hand and foot
- other hand anomalies or post-traumatic hand deformities/dysfunction
- vascular and pigmented skin lesions (hemangioma, vascular malformation, lymphangioma, and giant melanocytic birthmarks)
- burn scars and contractures
- minor burns not requiring referral to a burn center (as per established criteria)
- myelomeningocele
- pilonidal disease
- benign skin tumors (e.g., keloid and hypertrophic scars, burn scar contractures, skin and skin adnexal cysts, dermoid cysts, nevus sebaceous, lipomas, myomas, fibromas)
- body surface contour deformity
- breast deformity (e.g., macromastia, gynecomastia, Poland syndrome)
- malignant tumors (e.g., melanoma, spitz nevus, dermatofibrosarcoma protuberans)

Patients at any age with Major Diagnostic Categories Treated:

- cleft lip and palate and related cleft nasal deformity
- congenital ear deformities (e.g. constricted, hypoplastic, microtia, anotia)
- skull deformities: plagiocephaly, craniosynostosis
- craniofacial syndromes (e.g., Pierre robin, hemifacial microsomia; Goldenhar, velocardiofacial/22q11 deletion, fibrous dysplasia, neurofibromatosis, Apert, Crouzon, Pfeiffer, Carpenter, Saethre Chotzen, Treacher Collins, Nager, Stickler, craniofrontal nasal dysplasia, Binder, hemifacial hyperplasia, etc.)
- maxillofacial/orthognathic conditions
- facial palsy

3.29 Pulmonology

Age Group	Exclusions
• <18 years old, for both acute conditions and chronic follow-up	• N/A

Symptoms	Known Diagnoses
• Chronic cough with recurrent pneumonia (≥ 3 in a year); persistent wet cough in setting of: oto-sinus disease, persistent chest X-ray changes, failure to thrive, recurrent hospital admissions (> 2 in a year). • Cyanotic spells/hypoxia when non-pulmonary causes excluded • Hemoptysis in non-cardiac patients • Persistent wheezing (> 4 weeks) • pulmonary referral for evaluation of patients with systemic diseases (sickle cell disease, connective tissue disorders, obesity, etc.)	• Bronchiectasis not related to immunodeficiency Bronchiectasis related to immunodeficiency will be seen as a consult service • Severe bronchopulmonary dysplasia < 2 years old • Cystic fibrosis • Interstitial lung disease • Primary ciliary dyskinesia • Pulmonary hypertension type 3: Pulmonary hypertension due to lung disease • Recurrent pneumonia episodes (≥ 3 in a year) • Severe persistent asthma • lung transplant

3.30 Rehabilitation Medicine

Age Group	Exclusions
• < 18 years old	• learning disabilities without physical disability • autism without physical disability • mental health conditions • intellectual disability without physical disability

Symptoms	Known Diagnoses
• physical disabilities • gross motor delay • delay in acquisition of motor milestones • toe walking • spasticity (including botulinum toxin and intrathecal medication) • paralysis • movement disorder • any concerning gait deviation • extreme weakness that interferes with movement	• cerebral palsy (comprehensive management – non-operative) • spina bifida/ meningomyelocele (comprehensive management – non-operative) • muscular dystrophy • spinal cord injury • movement disorder after diagnosis who need rehabilitation • acquired brain injury (traumatic or non-traumatic like brain tumor) after diagnosis who need rehabilitation • amputation • brachial plexus injury • burns causing physical disability • genetic disorders causing physical disability

3.31 Rheumatology

Age Group	Exclusions
• < 18 years old	• Neonates 1) whose mother is diagnosed with systemic lupus erythematosus, or 2) who has abnormal antibodies (e.g. anti Ro antibodies, anti La antibodies) except if neonate has pathologic manifestations of lupus

Symptoms	Known Diagnoses
• unexplained prolonged symptoms not related to infections or medications, including: ▪ prolonged persistent fever (> 38°C) for more than 6 weeks with arthritis ▪ recurrent unexplained fever with no focus for infection for more than 3 months ▪ arthritis (joint pain and swelling) for more than 6 weeks • symptoms suggestive of juvenile dermatomyositis, e.g., muscle ache and weakness, high creatine kinase, alanine transaminase, aspartate aminotransferase, characteristic rash, lactic dehydrogenase, or myositis by magnetic resonance imaging for more than 6 weeks not related to infection • symptoms suggestive for systemic lupus erythematosus, e.g., hair falling out, oral ulcers, arthritis, malar rash, skin rash or abnormal blood work, e.g., cytopenia, low complement component 3, complement component 4 and positive autoantibodies. • symptoms suggestive of Behcet's disease, e.g., recurrent oral and genital ulcers, rash and arthritis • symptoms suggestive of chronic recurrent multifocal osteomyelitis (bone pain and non- infectious bone lesions by magnetic resonance imaging) • symptoms suggestive for familial Mediterranean fever, e.g., recurrent fever, abdominal pain and rash with or without family history of familial Mediterranean fever • symptoms suggestive for Sjogren's syndrome, e.g., recurrent parotitis, dry eyes, and dry mouth • symptoms suggestive for vasculitis, e.g., skin rash, arthritis, weight loss and fever with positive autoantibodies	• autoimmune disorders • Behcet disease • chronic recurrent multifocal osteomyelitis • inflammatory bowel disease-related arthritis • juvenile dermatomyositis • juvenile idiopathic arthritis • mixed connective tissue disease • neonatal lupus only with pathological manifestations, e.g., heart block, rash, transaminitis, hematologic and neurological abnormalities. Please see exclusions above. • periodic fever syndrome, familial Mediterranean fever, Hyperimmunoglobulinemia D • sarcoidosis • scleroderma • Sjogren syndrome • system lupus erythematosus • systemic sclerosis • polyarteritis nodosa • Raynaud phenomena • uveitis • vasculitis • morphea • other auto inflammatory diseases

3.32 Sidra Child Advocacy Program (S-CAP)

Age Group	Exclusions
• < 18 years old	• N/A

Symptoms	Known Diagnoses
Specialty Background • A 24-hour phone consultation is available if needed, on 4003 7227, a dedicated line due to the service's sensitive nature of cases. Symptoms • injury without available or suitable explanation, or inconsistent with child's developmental stage, e.g., bruises, bites, lacerations/abrasions/scars, thermal injuries, fractures, intracranial injury • any child who has engaged in sexual activities that s/he cannot comprehend, is developmentally unprepared for and cannot give consent, or violate the law/social taboos of society (e.g., oral/genital/anal contact, fondling, rape, prostitution, exposure to or use in the production of pornography), with exhibited behavioral disturbances (e.g., depression, anger, and/or sexualized behavior), or physical signs/symptoms (e.g., genital, anal or perianal injury; anogenital bleeding or discharge, anogenital rash/warts, dysuria; sexually transmitted infections or pregnancy) • conditions of failure to provide for a child's basic needs (e.g., inadequate nutrition, inappropriate medical care or treatment, poor school attendance, lack of supervision). • impaired psychological growth and development, frequently related to negativity/hostility, rejection or developmentally inappropriate expectations of the child	• emotional abuse • neglect • physical abuse • sexual abuse

3.33 Urology

Age Group	Exclusions
• 18 years old and below	• nocturnal enuresis requiring initial management through behavioral therapy and lifestyle modifications by the family physician • non-complex circumcision and penile abnormalities • Any voiding dysfunction (daytime, night time incontinence) unless referred from HMC Voiding dysfunction clinics non-complex circumcision and penile abnormalities

Symptoms	Known Diagnoses
	• ambiguous (intersex) genitalia • bladder exstrophy and epispadias • complex circumcision with penile abnormalities (included buried penis) • cloacal and urogenital sinus anomalies • duplications of the urinary tract • hydronephrosis (including antenatally diagnosed) over 15 mm antero-posterior diameter • vesico-ureteral reflux (confirmed radiologically) • hydroceles • hypospadias • megaureter • neurogenic bladder (associated with spina bifida) • penile curvature • posterior urethral valves • recurrent urinary tract infections (if associated with abnormal ultrasound findings) • renal, testicular and bladder tumors • ureteroceles • undescended testicles • urinary stones • testicular torsion • varicocele • disorders of sexual development (ambiguous genitalia, intersex)

3.34 Gynecology

Age Group	Exclusions
• ≥14 years old females for primary referral	• proven cases of cancer

Symptoms and Known Diagnoses

Contraception Guidance
- hormones (tablets, patches, nuvarings, injections. etc.)
- intrauterine contraceptive device
- implants
- tubal sterilization
- other options

Abnormal Uterine Bleeding
- postmenopausal bleeding
- premenopausal bleeding
- bleeding lasting longer than 7 days
- passing blood clots
- heavy or abnormal menstrual bleeding
- spotting or bleeding between periods or after menopause
- periods that are more frequent than every 21 days or are more than 35 days apart
- vaginal bleeding or discharge
- post-coital (after intercourse) bleeding (bleeding after intercourse)

Other Menstrual Disorders
- primary Amenorrhea
- secondary Amenorrhea
- dysmenorrhea

Uterine Pathologies
- fibroids
- polyps
- adenomyosis
- cervical ectropion
- uterine septum
- Mayer-Rokitansky-Küster-Hauser syndrome /vaginal aplasia
- other Mullerian anomalies (e.g., bicornuate uterus, duplicate system, vaginal septum, imperforate hymen)

Pap Smear and Cervical Pathologies
- pap smear screening
- cervical dysplasia; diagnostics and treatment
- colposcopy

Ovarian/Adnexal Pathologies
- ovarian cyst
- any adnexal mass (not proven cancer)
- hydro salpinx
- endometriosis
- pelvic pain
- dyspareunia
- pelvic inflammatory disease sexually transmitted infection

Menopause and Premenopausal Management
- hormonal replacement therapy.
- genitourinary syndrome of menopause (e.g., vulvovaginal atrophy)

Vulvovaginal Disorders
- atrophy
- lichen sclerosis
- dysplasia and genital warts
- vaginal discharge/vaginitis
- any other disorders or lesions affecting the vulva and vagina

Pelvic Floor Disorders
- uterovaginal prolapse (e.g., cystocele)
- urinary incontinence
- urinary urgency
- polycystic ovarian syndrome

Infertility and Endocrine
- initial evaluation and management of female factor infertility
- evaluation and low complexity treatments of female fertility related endocrine disorders

Early Pregnancy Complications
- pregnancy of unknown location (e.g., suspected ectopic)
- miscarriages
- recurrent pregnancy loss evaluation and management (3 or more)

Gynecologic Surgeries for Benign Conditions
- open/abdominal
- endoscopies (e.g., hysteroscopy, laparoscopy, robotic assisted)
- vaginal surgeries
- office hysteroscopy

3.35 Maternal Fetal Medicine

Age Group	Exclusions
• N/A	• N/A

Symptoms and Known Diagnoses

Refer to Obstetrical Diagnostic Ultrasound – Screening

- nuchal translucency screening (11 - 14 weeks)
- first trimester basic and advanced fetal anatomy survey
- first trimester chronicity determination for multiple pregnancy
- determination of gestational age by ultrasound
- growth scan
- fetal size < or > than gestational age
- placental location
- gestational diabetes
- pregnancy diagnosis
- fetal anatomy scans (18 - 22 weeks gestation)
- second opinion ultrasound

Refer to Fetal Medicine Ultrasound – High risk

- detected or suspected fetal congenital anomaly
- fetal echocardiography
- intra uterine growth restriction (early and late onset)
- fetal cardiac arrhythmias
- rhesus and other blood group incompatibilities
- fetal hydrops
- twin pregnancies
- twin-to-twin transfusion syndrome or discordant growth
- triplet and higher order multiple pregnancy
- advanced maternal age > 39 years old
- abnormal nuchal translucency -screening
- detected or suspected fetal infection
- exposure to teratogenic medication or substances
- history of stillbirth/ intra uterine fetal death/ pre-term delivery
- family history of congenital anomalies/genetic diseases
- invasive diagnostic test (amniocentesis, chorionic villus sampling etc.)
- amniotic fluid disorders (polyhydramnios/oligohydramnios/anhydramnios)
- detected or suspected morbidly adherent placenta

3.36 Obstetrics

Age Group	Exclusions
• N/A	• diagnosed maternal cardiac disease • maternal coagulation or hematologic disorders • women with organ transplant or malignancies • morbid obesity with body mass index >45 at booking • chronic maternal kidney disease affecting function • maternal neurologic disorders

Symptoms and Known Diagnoses

Routine Antenatal Care
- healthy women and healthy fetus at any gestational age

High-risk Antenatal Care (gestational age not specified)
- all fetal conditions
- previous adverse pregnancy outcome/still birth/neonatal death
- previous preterm delivery
- multiple gestations

Referral due to Acute Condition
- labor onset
- spontaneous membrane rupture
- pregnancy of greater than 41 weeks gestation
- blood pressure >140/90
- bleeding from the genital tract at any stage pregnancy
- hyperemesis gravid arum
- decreased fetal movements
- suspected fetal demise

Pre-pregnancy Counselling

3.37 Women's Mental Health

Age Group	Exclusions
• All women from 18 years and up • Pregnant women regardless of age	• Women requiring emergency psychiatric management

Symptoms	Known Diagnoses
• persistent sadness • self-harming behavior • fatigue • loss of interest and enjoyment • anxiety, distress, feeling stressed or irritable • uncontrollable worries • panic or obsessive thoughts • flashbacks/ nightmares about frightening event • confusion • delusions • hallucinations • paranoia • significant impairment of a woman's ability to function • difficulties coping with day-to-day life • memory issues • symptoms of Adult Attention Deficit Hyperactivity Disorder (ADHD)	have comorbid mental health difficulties • have clinically significant distress associated with their obstetric presentations. • depressive disorders including antepartum and postpartum depression. • anxiety disorders including generalized anxiety disorder, perinatal obsessive-compulsive disorder and phobias impacting on obstetric care, acute and chronic post- traumatic stress disorder. • adjustment disorder; complicated grief reactions, following perinatal loss. • attachment and bonding issues. • preconception assessment and counselling for women, with severe mental illness such as bipolar affective disorder, schizophrenia and history of postpartum psychosis • any other Adult Psychiatry condition • ADHD • Memory problems and dementia

Others
- requiring medication advice
- family relationship issues
- adjustment to parenting

•

3.38 Reproductive Medicine

Age Group	Exclusions
• all married couples seeking fertility assistance	• N/A

Symptoms and Known Diagnoses

Infertility as defined as being a condition of the reproductive system defined by the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse.

Services

Initial Evaluation and Management of Primary and Secondary Infertility

- semen analysis
- hormone profile of the female for fertility evaluation
- evaluation of tubal patency by hysterosalpingogram-contrast sonography
- evaluation of uterine cavity by 3-D scanning with/without saline infusion sonography
- ovulation induction and follicle tracking

Evaluation and Management of Low-Complexity Treatments for Female Infertility-Related Endocrine Disorders, including Polycystic Ovarian Syndrome

Evaluation and Management of Infertile Couples Needing Advanced Fertility Assistance, Including:

- intra-uterine insemination
- in-vitro-fertilization with or without intra-cytoplasmic sperm injection
- egg/ embryo freezing
- pre-implantation genetic testing

3.39 Diagnostic Imaging/Radiology

Age Group	Exclusions
• < 18 years old • > 18 years old for congenital heart disease • > 18 years old for fetal magnetic resonance imaging • all ages for positron emission tomography/computed tomography • all ages for nuclear medicine	• adult female imaging other than fetal magnetic resonance imaging • gynecological ultrasonography • non-pediatric ultrasonography • obstetric ultrasonography • occupational health imaging • postnatal more than 12 months • > 18 years old for congenital disease and genetics other than heart

Scope

Services

- bone densitometry
- computed tomography
- fluoroscopy
- EOS 3D X-Ray
- positron emission tomography/computed tomography
- magnetic resonance imaging
- fetal magnetic resonance imaging
- radiography
- interventional radiology
- pediatric ultrasonography
- pediatric vascular anomalies clinic
- nuclear medicine

Future Services

- cone beam computed tomography
- nuclear medicine therapies for pediatric and adult patients: thyroid benign and malignant as well as other oncology therapies palliative or curative

Related Services

- anesthesiology
- pre-admissions testing clinic
- post-anesthesia care unit

Image Viewing and Sharing

- For referring physicians with access to the Sidra Medicine Cerner, all reports and images are available on Cerner.
- For referring physicians with access to the Health Information Exchange platform, all reports and images are available on the Health Interface Exchange. Currently, this applies to physicians from HMC and Primary Health Care Corporation. An initiative is in progress to expand this to image exchange.
- For referring physicians without access to Sidra Medicine Cerner, or the Health Interface Exchange, all reports and images are available into the referring physicians' contact details, and for collection by the patient following signature of the Release of Information form by the parent or guardian.

4. ACRONYMS

HMC	Hamad Medical Corporation
S-CAP	Sidra Child Advocacy Program

5. REFERENCES

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