OGAA Delphi Evidence

Below is a list of evidence associated with each question

**Prevention of Leak: Pre-Operative**

1. **Does Pre-Operative Optimisation of Hypertension affect anastomotic leak rate?**
   Evidence: No meta-analysis / systematic reviews

2. **Does Pre-Operative Optimisation of Diabetes affect anastomotic leak rate?**


3. **Does Pre-Operative Optimisation of Obesity affect anastomotic leak rate?**


4. **Does Pre-habilitation (such as with improvement in lung function or exercise capacity to improve patient fitness for surgery) affect anastomotic leak rate?**
5. Does the time from completion of chemo/radiotherapy to surgery have an effect on anastomotic leak rate?


6. Does the aggressive management of abdominal vascular stenosis (i.e. coeliac axis stenosis) via angiography and/or stenting affect anastomotic leak rate?


7. Does use of pre-operative immunonutrition supplements (containing immune-enhancing nutrients e.g. glutamine, omega-3 fatty acids) affect anastomotic leak rate?


Prevention of Leak: Intra-operative Factors

Surgical Approaches:

8. Does patient positioning during Minimally Invasive Oesophagectomy affect anastomotic leak rate?

Markar SR, Wiggins T, Antonowicz S, Zacharakis E, Hanna GB. Minimally invasive esophagectomy: Lateral decubitus vs. prone positioning; systematic review and pooled analysis. Surg Oncol. 2015 Sep;24(3):212–9

9. Does the use of a minimally invasive approach to oesophagectomy when compared to open affect anastomotic leak rate?


10. Do robotic assisted techniques for oesophagectomy affect anastomotic leak rate?


11. Does the width of the gastric tube (thin tube, standard tube vs whole stomach) in an oesophagectomy affect anastomotic leak rate?


12. Does the addition of a pyloric procedure (pyloroplasty, dilatation or botox) affect anastomotic leak rate?


Liu QX, Min JX, Deng XF, Dai JG. Is hand sewing comparable with stapling for anastomotic leakage after esophagectomy? A meta-analysis. World J Gastroenterol.
Prevention of Leak: Intra-operative Factors
Anastomotic Technique:

13. Does the anastomotic technique (Hand-sewn vs linearly stapled vs circular stapled) affect anastomotic leak rate?


14. Does the location of the anastomosis (thoracic versus cervical) affect anastomotic leak rate?


15. Does ischaemic preconditioning of the stomach affect anastomotic leak rate?

Wiggins T, Markar SR, Arya S, Hanna GB. Anastomotic reinforcement with omentoplasty following gastrointestinal anastomosis: A systematic review and meta-


16. Does the addition of an omentoplasty affect anastomotic leak rate?


17. Does the addition of intraoperative glue over the anastomosis affect anastomotic leak rate?


18. Does intra-operative assessment of gastric conduit perfusion with Indocyanine Green Assessment or intraoperative fluorescence imaging affect anastomotic leak rate?


19. Does placing the anastomosis outside the radiotherapy field affect anastomotic leak rate?


Prevention of leak: Post-operative Management

20. Does the duration of post-operative nasogastric decompression affect anastomotic leak rate?


21. Does the routine use of post-operative contrast swallow or other forms of anastomotic integrity assessment facilitate early intervention and affect outcomes from anastomotic leak after oesophagectomy?


22. Does timing of postoperative oral feeding affect anastomotic leak rate?


23. Does standardising post-operative care with the use of Enhanced Recovery Protocols affect anastomotic leak rate?

Markar SR, Karthikesalingam A, Low DE. Enhanced recovery pathways lead to an improvement in postoperative outcomes following esophagectomy: systematic

24. Does the regular monitoring of c-reactive protein (CRP), white cell count (WCC) or combination of laboratory markers in the post-operative period facilitate early detection of anastomotic leak after oesophagectomy?


Management of Anastomotic Leak

25. What is the role for endoscopic stenting in management of anastomotic leak?


26. What is the role for endo-vacuum therapy in management of anastomotic leak?

27. Does routine placement of a feeding jejunostomy versus expectant management with intervention (NJ, feeding jejunostomy, TPN) only if leak identified, have an impact on outcomes following of anastomotic leak?