

Title:	Endoscopic ultrasound for evaluating pancreatic, gastric, oesophageal and hepatobiliary neoplasms
Agency:	Medical Services Advisory Committee (MSAC) MDP 106 Commonwealth Department of Health and Ageing GPO Box 9849 Canberra ACT 2601 <a href="http://www.msac.gov.au">http://www.msac.gov.au</a>
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### **Aim**

To evaluate the safety, effectiveness and cost-effectiveness of endoscopic ultrasound (EUS) and endoscopic ultrasound guided fine-needle aspiration (EUS-FNA) for diagnosing and staging gastro-intestinal neoplasms.

### **Methods**

A systematic literature review of EUS and EUS-FNA for diagnosing and staging gastro-intestinal (oesophageal, gastric, pancreatic, and extrahepatic biliary tract) neoplasms was conducted.

### **Results and conclusions**

#### *Safety*

Based on available data, it was considered that use of EUS  $\pm$  FNA for diagnosing and staging gastro-intestinal neoplasms is associated with a very low perforation risk and is generally a safe procedure.

#### *Effectiveness*

The available direct evidence indicated that the potential value of EUS  $\pm$  FNA was not increased survival, but fewer inappropriate surgeries performed.

Diagnostic accuracy evidence indicated that EUS  $\pm$  FNA use in addition to CT, or CT plus PET, increased sensitivity in oesophageal, gastric and pancreatic cancer staging. Increase in sensitivity is likely to occur at the expense of a small trade-off in specificity. EUS  $\pm$  FNA was also found to have greater sensitivity for pancreatic, biliary and gastric submucosal tumour diagnosis compared with current clinical practice.

In general, patient management studies indicated that EUS  $\pm$  FNA findings contributed to avoiding surgeries and other investigations, which reduced the number of complex procedures performed.

#### *Cost-effectiveness*

Economic evaluation was undertaken for indications with sufficient clinical evidence. Use of EUS was determined to be cost saving for gastric and pancreatic cancer staging. EUS  $\pm$  FNA was associated with an incremental cost for staging oesophageal cancer and diagnosing pancreatic tumours compared with current clinical practice.

The annual financial impact for the first three years following listing was estimated to be \$1,098,600 and \$2,279,010 for EUS and EUS-FNA, respectively.

**Recommendation**

MSAC recommended that endoscopic ultrasound should be publicly funded for the staging of oesophageal, gastric and pancreatic cancer; with or without fine-needle aspiration in the diagnosis of pancreatic, biliary and gastric submucosal tumours. This recommendation was endorsed by the Minister for Health and Ageing 5 February 2007.