NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Health Technology Appraisal

Nivolumab for previously treated unresectable advanced oesophageal cancer

Final scope

Remit/appraisal objective

To appraise the clinical and cost effectiveness of nivolumab within its marketing authorisation for previously treated unresectable, advanced oesophageal cancer.

Background

Oesophageal cancer is a malignant tumour arising from cells lining the oesophagus (gullet), which is the muscular tube through which food passes from the throat to the stomach. The two main types of oesophageal cancer are squamous cell carcinoma and adenocarcinoma. Together, these account for over 95% of oesophageal cancer cases[1].

There are an estimated 8,919 new diagnoses of oesophageal cancer in the UK each year[2]. It is more common in men than women, with approximately 19 new cases for every 100,000 males and 9 for every 100,000 females. Around 80% of all new cases are diagnosed in people aged over 60[3]. Because of the nature of symptoms, oesophageal cancer is often diagnosed at an advanced stage, with around 70-80% diagnosed at stage 3 (locally advanced) or 4 (metastatic)[2].

Surgery with or without radiotherapy can be used to treat early oesophageal cancer. Chemotherapy (such as docetaxel, paclitaxel, or irinotecan) is sometimes used when surgery with or without radiotherapy is not effective. There is currently no standard treatment for previously treated advanced oesophageal cancer in the UK.

The technology

Nivolumab (Opdivo, Bristol-Myers Squibb) is a human monoclonal antibody that targets a receptor on the surface of lymphocytes known as PD-1. This receptor is part of the immune checkpoint pathway, and blocking its activity may promote an anti-tumour immune response. Nivolumab is administered intravenously.

Nivolumab does not currently have a marketing authorisation for oesophageal cancer in the UK. It is being studied in clinical trials versus docetaxel, paclitaxel or placebo in people with unresectable advanced or recurrent oesophageal cancer that is refractory to standard therapy or in whom standard therapy is not tolerated, including combination therapy with fluoropyrimidine and platinum-based drugs.

Intervention(s)	Nivolumab
Population(s)	Adults with previously treated advanced or recurrent unresectable oesophageal cancer that is refractory or intolerant to standard therapy
Comparators	• chemotherapy including taxanes (docetaxel/paclitaxel) or irinotecan • best supportive care (including but not limited to antiemetics, blood transfusions, oesophageal stents)
Outcomes	The outcome measures to be considered include: • overall survival • progression-free survival • response rate • adverse effects of treatment • health-related quality of life.
Economic analysis	The reference case stipulates that the cost effectiveness of treatments should be expressed in terms of incremental cost per quality-adjusted life year. The reference case stipulates that the time horizon for estimating clinical and cost effectiveness should be sufficiently long to reflect any differences in costs or outcomes between the technologies being compared. Costs will be considered from an NHS and Personal Social Services perspective.
Other considerations	Guidance will only be issued in accordance with the marketing authorisation. Where the wording of the therapeutic indication does not include specific treatment combinations, guidance will be issued only in the context of the evidence that has underpinned the marketing authorisation granted by the regulator.

Related NICE recommendations and NICE Pathways	**Related Guidelines:** 'Oesophago-gastric cancer: assessment and management in adults' (2018) NICE guideline NG83. Review date: TBC NICE guideline CG106 Barrett's oesophagus: ablative therapy Published date: August 2010 **Related Technology Appraisals:** NICE technology appraisal guidance 378 Ramucirumab for treating advanced gastric cancer or gastro–oesophageal junction adenocarcinoma previously treated with chemotherapy. Published date: January 2016 **Appraisals in development (including suspended appraisals):** Nivolumab for previously treated gastric or gastro-oesophageal junction cancer NICE technology appraisal guidance [ID1118]. Appraisal suspended Pembrolizumab for previously treated oesophageal or gastro-oesophageal junction cancer NICE technology appraisal guidance [ID1357]. Appraisal suspended Pembrolizumab for gastric or gastroesophageal junction adenocarcinoma NICE technology appraisal guidance [ID1305]. Appraisal suspended Avelumab for treating gastric or gastro-oesophageal junction cancer after 2 therapies NICE technology appraisal guidance [ID1289]. Publication expected: TBC Pembrolizumab for previously treated metastatic gastric or gastro-oesophageal junction cancer NICE technology appraisal guidance [ID1168]. Appraisal suspended Pertuzumab for untreated metastatic HER2-positive gastric or gastro-oesophageal junction cancer NICE technology appraisal guidance [ID1096]. Appraisal suspended **Related NICE Pathways:** Gastrointestinal cancers (2018), NICE pathway available at: https://pathways.nice.org.uk/pathways/gastrointestinal-cancers

Related National Policy	The NHS Long Term Plan, 2019. NHS Long Term Plan NHS England (2018/2019) NHS manual for prescribed specialist services (2018/2019) Chapter 2A NHS England (2013) NHS Standard contract for cancer: Oesophageal and gastric (adult) section B part 1 - Service specifications. REF: B11/S/a NHS England (2016) Clinical Commissioning Policy: Robotic assisted surgery for oesophago-gastric cancers. Ref: NHS England: 16006/P Department of Health, NHS Outcomes Framework 2016-2017 (published 2016): Domains 1-5. https://www.gov.uk/government/publications/nhs-outcomes-framework-2016-to-2017

References

1. Macmillan Cancer Support. Oesophageal Cancer. 2015 [cited 2017 03.04.]; Available from: http://www.macmillan.org.uk/information-and-support/oesophageal-gullet-cancer/understanding-cancer/types-oesophageal-cancer.html Accessed February 2020

2. Cancer Research UK. Oesophageal Cancer Incidence Statistics. 2014 [cited 2017 03.04.]; Available from: http://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/oesophageal-cancer/incidence#heading-Zero Accessed February 2020

3. Cancer Research UK. Oesophageal Cancer - Causes and Risks. 2016 [cited 2017 03.04.]; Available from: http://www.cancerresearchuk.org/about-cancer/oesophageal-cancer/causes-risks Accessed February 2020