

Incidence of oesophageal cancer in England, 1998-2007

NCIN Data Briefing

Background

Changes in the incidence of oesophageal cancer have been reported internationally. Known risk factors include gastro-oesophageal reflux disease (GORD), Barrett's oesophagus, smoking, alcohol and obesity. *Helicobacter pylori* infection may be associated with a reduced incidence of lower oesophageal cancer possibly because infection reduces gastric acid reflux.

KEY MESSAGES:

The incidence of lower oesophageal cancer increased in males and was higher in males than females. Obesity, specifically the abdominal distribution of body fat that is more common in men, may lead to a higher prevalence of GORD and diagnosed Barrett's oesophagus, which may partly explain these patterns.

Results

There were 61,875 patients diagnosed with oesophageal cancer in England between 1998 and 2007, the majority of tumours being located in the lower oesophagus (Table 1). The incidence of upper and middle oesophageal cancer remained stable between 1998 and 2007 (Figure 1a). Over the same time period the incidence of lower oesophageal cancer in males increased from 8.1 per 100,000 in 1998 to 10.1 per 100,000 in 2007, but has remained relatively stable since 2002. The incidence of lower oesophageal cancer was around four times higher in males than in females, whereas the incidence of upper and middle oesophageal cancer was similar in both sexes. The incidence of oesophageal cancer was highest in more socioeconomically deprived areas for all three subgroups (Figure 1b).

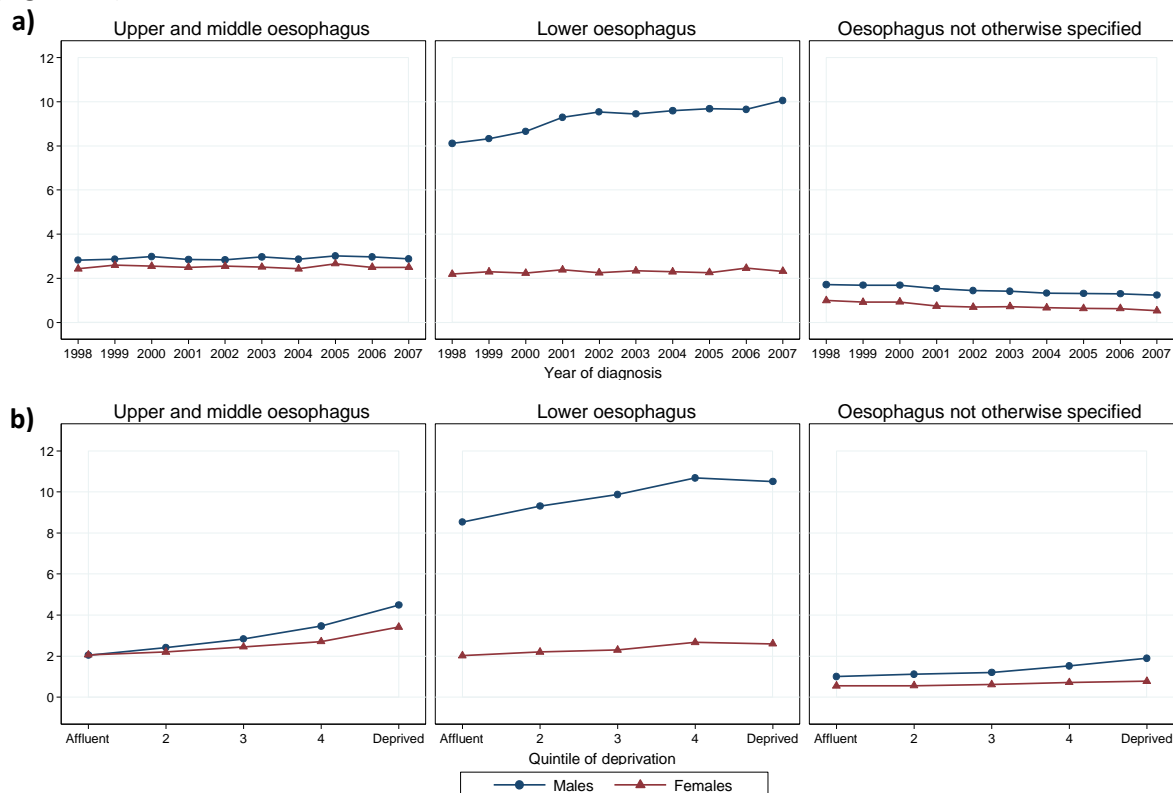


Figure 1: Age-standardised incidence rates per 100,000 European standard population (ASR(E)) by a) year of diagnosis and b) socio-economic deprivation quintile.

Methods

Data on 61,875 patients diagnosed with oesophageal cancer (ICD10 C15) in England between 1998 and 2007 were extracted from the National Cancer Data Repository. The NCDR contains information collected by the eight English cancer registries on all cancer patients diagnosed in their respective catchment areas. Three subgroups were defined: upper and middle oesophagus, lower oesophagus and oesophagus not otherwise specified (Table 1).

Table 1: Oesophageal cancer groups.

Oesophageal cancer groups	ICD10 and ICDO2 morphology codes	Number (%) of patients
Upper and middle oesophagus	C15.0-C15.1, C15.3-C15.4 including C15.8-C15.9 with a morphology code 8050-8083 (squamous cell carcinoma)	18,128 (29.3)
Lower oesophagus	C15.2, C15.5 including C15.8-C15.9 with a morphology code 8140-8576 (adenocarcinoma)	35,849 (57.9)
Oesophagus not otherwise specified	C15.8-C15.9 excluding C15.8-C15.9 with a morphology code of 8050-8083 (squamous cell carcinoma) and 8140-8576 (adenocarcinoma)	7,898 (12.8)

Age-standardised incidence rates per 100,000 European standard population (ASR(E)), were calculated for males and females by year of diagnosis and quintiles of the income domain of the Indices of Deprivation 2007.

Final note

The increasing incidence of lower oesophageal cancer may be associated with the rising prevalence of obesity in England. The abdominal distribution of body fat, common in men, may lead to higher levels of GORD in this population. This, together with the higher prevalence of diagnosed Barrett's oesophagus in men, may explain the higher incidence of lower oesophageal cancer in males compared with females.

Acknowledgments:

This work is taken from the following publication: Coupland VH, Allum W, Blazeby JM, Mendall MA, Hardwick RH, Linklater KM, Møller H, Davies EA. Incidence and survival of oesophageal and gastric cancer in England between 1998 and 2007, a population-based study. *BMC Cancer* 2012, 12:11.

FIND OUT MORE:

[Thames Cancer Registry](#)

Thames Cancer Registry is the lead cancer registry for upper gastrointestinal cancers

<http://www.tcr.org.uk>

Other useful resources within the NCIN partnership:

Cancer Research UK CancerStats – Key facts and detailed statistics for health professionals

<http://info.cancerresearchuk.org/cancerstats/>

The National Cancer Intelligence Network is a UK-wide initiative, working to drive improvements in standards of cancer care and clinical outcomes by improving and using the information collected about cancer patients for analysis, publication and research. Sitting within the National Cancer Research Institute (NCRI), the NCIN works closely with cancer services in England, Scotland, Wales and Northern Ireland. In England, the NCIN is part of the National Cancer Programme.