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Medical and economic relevance of the 7th edition of TNM classification of esophageal and gastric carcinoma

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Background

From a medical point of view, the 7th edition of the TNM classification will result in significant changes for esophageal and gastric carcinoma. Nearly all adenocarcinoma of the esophagogastric junction (EGJ carcinoma) will be classified as esophageal carcinoma. Depending on codification, this may lead to different allocations and potential shifts in the number of cases.

Objective

The objective of this study is an analysis of the relevance of the above changes for adenocarcinoma of the esophagogastric junction from a medical and economic point of view to arrive at recommendations for codification.

Materials and method

The present study compares the number of esophageal carcinoma cases (C15.8, see table 1) on the one hand with the number of cardia carcinoma (C16.0) on the other hand over a time horizon of ten years based on the new and the old TNM classification at a high-volume centre. DRGs represent the basis for the billing, which follows from the main diagnosis and the main surgical service delivered. The diagnosis on the basis of ICD 10 version 2011 differentiates between a carcinoma of the distal esophagus and the gastric tract (ICD C15.8) and a cardia carcinoma (ICD 16.0). According to the 7th TNM classification, an esophageal carcinoma already exists if the centre of the tumour is located within five centimetres of the esophageal junction and the z-line is infiltrated at the same time. This applies for all EGJ tumours of type I and II as well as for a majority of type III carcinoma.

Conclusion

The new TNM classification will lead to a strong increase in the number of cases of esophageal carcinoma and to a decrease in the number of cases of gastric cancer, likely including a series of effects for minimum amounts (see table 2). The medical and economic relevance underlines the strong importance of a detailed and faultless documentation of clinical findings.

Results

In the new TNM classification, the number of cases of esophageal carcinoma will increase, while in turn there will be a lower number of gastric carcinoma. The main diagnosis esophageal carcinoma ICD C15.8 will be classified as DRG G03A for the corresponding surgery and be billed at EUR 16,552. In case of a main diagnosis of cardia carcinoma ICD C16.0, there will be two different DRGs with significantly different billing amounts, depending on the documented principal surgical service (see table 3). Differences in excess of EUR 4,000 (i.e., approximately 35%) could result, depending on documented primary diagnosis and surgical procedure of esophageal and gastric carcinoma.

Table 1: Esophageal carcinoma (ICD-Nr. 15.5, year 2007)

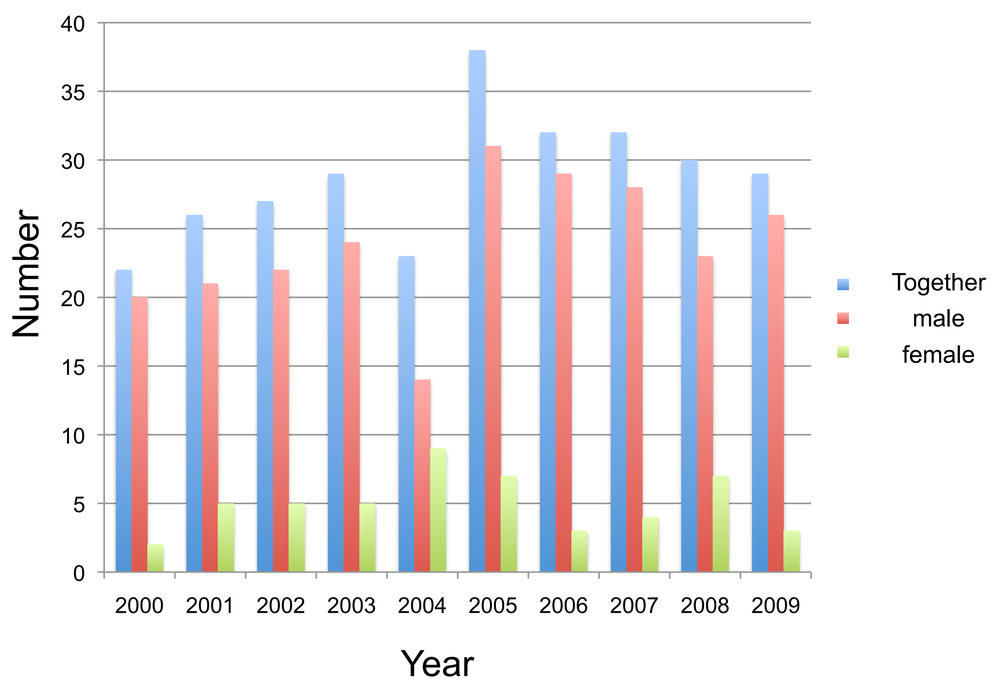

Table 2: Distal esophageal carcinoma (C15.5) and cardia carcinoma (C16.0)

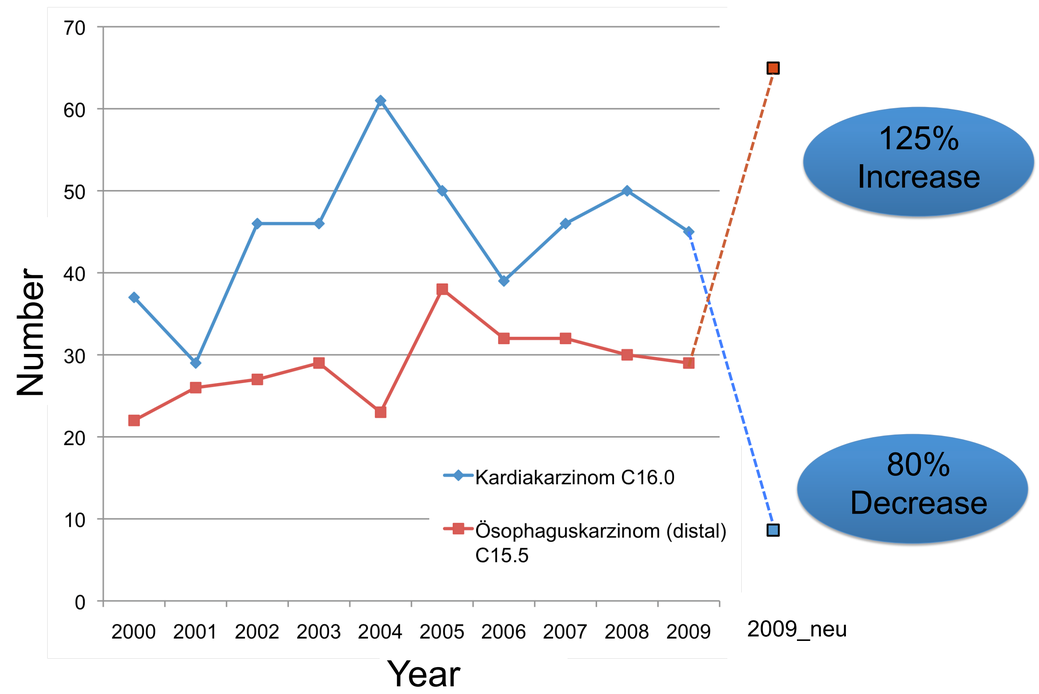

Table 3: Classification of surgical procedures

Extended gastrectomy & systematic DII LAD & esophagojejunostomy	OPS 5-443.3
+	
Transhiatal partial resection of esophagus	OPS 5-242.2

→ DRG G03A → 16.552€

without OPS 5-242.2 → DRG G03C → 12.289€

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