

Supplementary Materials:

The detailed definitions used on the basis of the Dutch medical claims data are given below. Table 1 provides codes of diagnoses. A patient needs at least one diagnosis code to successfully claim medical costs, but he or she can have multiple codes. All care activities that a patient undergoes are linked to a diagnosis code. Different specialties use different treatments with corresponding treatment codes. Therefore each specialty uses a unique diagnosis code and this can result in multiple diagnosis codes per patient for one diagnosis (one for each specialty). Patients were initially selected based on diagnosis codes.

Table 2 to 5 show the codes for care activities as described in the Dutch medical claims data, with which further selection of patients was done. These care activities are grouped by surgery (table 2), radiation (table 3), chemotherapy (table 4) and endoscopic treatments (table 5). In table 6 the care activities corresponding with ICU admissions are listed.

In all tables both the Dutch and translated English description are provided to enhance transparency and reproducibility.

Table S1. Diagnoses codes used to identify patients with gastric or esophageal cancer.

Specialty name	Diagnosis code	Diagnosis description (Dutch)	Diagnosis description (English)
Surgery	319	Maligne neoplasma oesofagus / cardia	Cancer of esophagus and cardia of stomach
Surgery	346	Maligne neoplasma maag, exclusief cardia	Stomach cancer (excluding tumors of the cardia)
Internal medicine	904	Maligniteit oesofagus /cardia	Cancer of esophagus and cardia of stomach
Internal Medicine	914	Maligniteit maag (exclusief cardia)	Stomach cancer (excluding tumors of the cardia)
Gastroenterology	307	Oesofagus/cardia maligniteit (esophageal cancer)	Cancer of esophagus and cardia of stomach
Gastroenterology	407	Maagcarcinoom, exclusief cardiacarcinoom	Stomach cancer (excluding tumors of the cardia)

Table S2. Care activity codes corresponding with surgical resections.

Care activity	Description (Dutch)	Description (English)
034432	Maagresectie	Gastrectomy
034440	Totale maagresectie, thoracaal of abdominaal	Gastrectomy, thoracic or abdominal approach
034436	Reconstructieve operatie aan de resectiemaag volgens bijvoorbeeld Henley of Roux-Y	Reconstructive surgical operation on resected stomach (e.g. according Henley or Roux-en-Y)
034322	Resectie van oesophaguscarcinoom	Resection of esophageal cancer
034323	Oesophagusresectie, open procedure (zie 034324 voor thoracoscopisch).	Resection of esophagus, open approach (see 034324 for thoracoscopic approach)
034324	Thoracoscopische oesophagusresectie (zie 034323 voor open procedure).	Resection of esophagus, thoracoscopic approach (see 034323 for open approach)
034342	Oesophagusresectie met colonimplantatie (met jejunuminterpositie zie 034398, met gastric pull-up zie 034399).	Resection of esophagus with colon implantation (see 034398 for procedure with jejunal interposition and 034399 for procedure with gastric pull up)

Table S3. Care activity codes corresponding with radiation.

Care activity	Description (Dutch)	Description (English)
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090791	Een bestralingsfractie	One fraction of radiation
090796	Stereotactische bestraling (exclusief stereotactische protonenbestraling, zie 090832 en 090833).	Stereotactic radiation (excluding stereotactic proton radiation; see 090832 and 090833)
090797	Intensieve bestraling	Intensive radiation

Table S4. Care activity codes corresponding with chemotherapy.

Care activity	Description (Dutch)	Description (English)
39141	Verstrekking chemotherapie per infuus of per injectie bij niet-gemetastaseerde tumoren.	Delivery of chemotherapy via intravenous dwelling catheter or via injection, in non-metastasized cancer
39142	Verstrekking chemotherapie per infuus of per injectie bij gemetastaseerde tumoren.	Delivery of chemotherapy via intravenous dwelling catheter or via injection, in metastasized cancer
39143	Verstrekking chemotherapie per infuus of per injectie bij acute leukemie.	Delivery of chemotherapy via intravenous dwelling catheter or via injection, in acute leukemia
39144	Verstrekking chemotherapie per infuus of per injectie bij niet-oncologische diagnosen.	Delivery of chemotherapy via intravenous dwelling catheter or via injection, in non-oncologic diagnosis
39145	Verstrekking chemo-immunotherapie per infuus of per injectie.	Delivery of chemotherapy via intravenous dwelling catheter or via injection
39958	Hyperthermische intraperitoneale chemotherapie (HIPEC) in combinatie met cytoreductie.	Hyperthermic intraperitoneal chemotherapy (HIPEC) combined with cytoreduction
34730	Adjuvante hyperthermische intraperitoneale chemotherapie (HIPEC; voor HIPEC in combinatie met cytoreductie zie 039958).	Adjuvant hyperthermic intraperitoneal chemotherapy (HIPEC; for HIPEC combined with cytoreduction see 039958)

Table S5. Care activity codes corresponding with endoscopic procedures.

Care activity	Description (Dutch)	Description (English)
34640	Endoscopische mucosectomie	Endoscopic mucosal resection

Table S6. Care activity codes corresponding ICU admissions.

Care activity	Description (Dutch)	Description (English)
190153	IC-dag licht (valid until Dec, 31 st , 2017)	One day of ICU admission, light (valid until December the 31 st of 2017)
190154	IC-dag middel (valid until Dec, 31 st , 2017)	One day of ICU admission, moderate (valid until December the 31 st of 2017)
190155	IC-dag zwaar (valid until Dec, 31 st , 2017)	One day of ICU admission, heavy (valid until December the 31 st of 2017)
190157	IC-dag type 1* (valid from Jan, 1 st , 2018)	One day of ICU admission type 1 (valid from January the 1 st of 2018)
190158	IC-dag type 2* (valid from Jan, 1 st , 2018)	One day of ICU admission type 2 (valid from January the 1 st of 2018)

* Type 1 and Type 2 correspond to different ways that the ICU is processed in registrations and declarations. There is no clear relation with light/moderate/heavy ICU.