Complex Surgery Oesophagus and Gastro-Oesophageal Junction

Registration form

Dataset established by the Expert Working Group and approved by the “Stuurgroep Complexe Chirurgie - Groupe de Pilotage chirurgie Complexe” on 30/04/2019.
All variables are required to be filled out unless stated otherwise (e.g. ‘if possible’, ‘if applicable’).

- Single-select variables: only one answer can be selected
- Multi-select variables: one or more answers can be selected

**Administrative patient data**

Hospital: ............................................................................................................................

Health insurance institution: ..............................................................................................

National number for social security (INSZ/NISS)*: ......................................................

* if filled out in the WBCR application, the following variables will be completed automatically:

- Last name: ....................................................................................................................
- First name: ..................................................................................................................
- Postal code: ...................................................................................................................
- City: .............................................................................................................................
- Country: .......................................................................................................................  
- Health insurance number: .......................................................... (if possible)
- Date of birth: ............./........../......... (dd/mm/yyyy)  
- Date of death: ............./........../......... (dd/mm/yyyy)  (if applicable)
- Sex:  
  - Male
  - Female

**General information**

Did the patient undergo surgery?
- No
- Indication:
  - Malignant tumour
    - Please note that the obligatory MOC/COM cancer registration (bijlage/annexe 55) for this tumour should be performed within 60 days of the Multidisciplinary Consult (MC/CM).
    - Benign tumour, specify: ..............................................................................................
    - Achalasia
    - Toxic/caustic substances
    - Boerhaave syndrome
    - Other, specify: ...........................................................................................................

- MC/CM report, without patient identification variables (e.g. name, INSZ/NISS):
  ................................................................................................................................. (text)

- Was the patient referred?
  - No
  - Yes
    - Referring hospital: Belgian: ......................... or Foreign: .........................

*If the patient did not undergo surgery, the registration can be terminated here.*

- Yes
  *If the patient underwent surgery, please fill out the following variables.*
Indication (* Tumoural pathology, ** Non-tumoural pathology):

- Malignant tumour *

Please note that the obligatory MOC/COM cancer registration (bijlage/annexe 55) for this tumour should be performed within 100 days of the date of surgery.

- Benign tumour *, specify: .................................................................
- Achalasia **
- Toxic/caustic substances **
- Boerhaave syndrome **
- Other **, specify: ...........................................................................

* Only to be filled out for a benign tumour:
  - Date of diagnosis (Priority: 1. Pathology 2. Endoscopy 3. Imaging): ....../....../....... (dd/mm/yyyy)

Please upload the following reports without patient identification variables (e.g. name, INSZ/NISS).

- MC/CM report: ................................................................. (text)
- Pathology report: ................................................................. (text)
- Surgery report: ................................................................. (text)

Was the patient referred?

- No
- Yes
  - Referring hospital: Belgian: .............................................. or Foreign: ......................................
  - Was there a M(O)C/C(O)M at the referring hospital?
    - No
    - Yes
      - Date: ....../....../........ (dd/mm/yyyy)
  - Was the patient hospitalized at the referring hospital?
    - No
    - Yes
      - Date of last consultation before referral: ....../....../........ (dd/mm/yyyy)

Patient characteristics

Height: ................... cm

Weight at time of surgery: ................... kg

WHO performance status at time of surgery:

- 0 - Asymptomatic, normal activity
- 1 - Symptomatic, but ambulant
- 2 - Symptomatic, bedbound <50% of the day
- 3 - Symptomatic, bedbound >50% of the day
- 4 - Completely dependent, 100% bedbound

ASA score (pre-operative risk):

- 1 - Healthy person
- 2 - Mild systemic disease, normal activity
- 3 - Serious systemic disease, limited activity
- 4 - Life-threatening illness, handicapped
- 5 - Dying
Comorbidity (prior to surgery) - Charlson Modified Index:

- No
- Yes

- Myocardial infarction
- Peripheral vascular disease
- Cerebrovascular disease
- Congestive heart failure
- Connective tissue disease
- Mild liver disease
- Moderate-severe liver disease
- Moderate-severe renal disease
- Chronic pulmonary disease
- Peptic ulcer
- Hemiplegia
- Dementia
- Diabetes without any damage to end-organs
- Diabetes with damage to end-organs
- Any tumour (without metastasis)
- Leukaemia (acute or chronic)
- Lymphoma
- Metastatic solid tumour
- AIDS (not just HIV positive)

Is the patient currently (= at time of surgery) treated with anti-thrombotic medication?

- No
- Yes

- B01AA: Vitamin K antagonists (e.g. warfarin)
- B01AB: Heparin group (e.g. heparin)
- B01AC: Platelet aggregation inhibitors excluding heparin (e.g. acetylsalicylic acid)
- B01AD: Enzymes (e.g. streptokinase)
- B01AE: Direct thrombin inhibitors (e.g. desirudin)
- B01AF: Direct Xa inhibitors (e.g. rivaroxaban)
- B01AX: Other antithrombotic agents (e.g. dermatan sulfate)

Surgery

PET/CT performed prior to surgery?

- No
- Yes

Did the patient receive any other treatment modality before this surgical procedure?

- No
- Yes

- Chemotherapy
  - Start date: ........../........../..........  (dd/mm/yyyy)
  - Date latest treatment: ........../........../..........  (dd/mm/yyyy)
- Targeted therapy/biologicals
  - Start date: ........../........../..........  (dd/mm/yyyy)
  - Date latest treatment: ........../........../..........  (dd/mm/yyyy)
Radiotherapy
- Start date: ………/………/………… (dd/mm/yyyy)
- Date latest treatment: ………/………/………… (dd/mm/yyyy)

Prior major thoracic or abdominal surgery
- Type of surgery: …………………………………………………………………………………………………………
- Date latest surgery: ………/………/………… (dd/mm/yyyy)

Endoscopic treatment
- EMR/ESD
  - Date latest treatment: ………/………/………… (dd/mm/yyyy)
- RFA
  - Date latest treatment: ………/………/………… (dd/mm/yyyy)
- Ablation techniques other than RFA
  - Specify: …………………………………………………………………………………………………………………
  - Date latest treatment: ………/………/………… (dd/mm/yyyy)

Other treatment modality (that could affect the oesophagus), specify: ……………………………

Date of surgery: ………/………/………… (dd/mm/yyyy)

* Only to be filled out for a malignant or benign tumour:

Tumour location:
- Proximal third
- Middle third
- Lower third
- Gastro-Oesophageal Junction / cardia

Surgery intention:
- Surgery as primary treatment
- Post-induction (neoadjuvant chemoradiotherapy)
  - Mandard grade: TRG1  TRG2  TRG3  TRG4  TRG5
- Salvage post-radical chemoradiotherapy
- Palliative
- Recurrence

Mode of surgery:
- Elective
- Emergency

Type of surgery:
- Minimally invasive
  - Partial/hybrid
- Total laparoscopic/Video-Assisted Thoracoscopic Surgery (VATS)
- Open
  - Transthoracic
  - Transhiatal
- Conversion
  - To?
    - Laparoscopy
      - Video-Assisted Thoracoscopic Surgery (VATS)
    - Open
  - Reason for conversion: ……………………………………………………………………………………………

---

Belgian Cancer Registry
Complex Surgery Oesophagus  Registration form  Version 1.0 (28/06/2019)  5
Nomenclature code:
- 228270-228281: Thoracic or thoracic-abdominal oesophagectomy or gastro-oesophagectomy in one surgery with continuity recovery
- 228292-228303: Subtotal oesophagectomy up to the level of the arcus aortae, with continuity recovery
- 228314-228325: Thoracic or thoracic-abdominal oesophagectomy or gastro-oesophagectomy in one surgery with continuity recovery and extensive lymph node removal
- 228336-228340: Subtotal oesophagectomy up to the level of the arcus aortae, with continuity recovery and extensive lymph node removal

Oesophagectomy:
- Partial
- Subtotal
- Total + laryngectomy

* Only to be filled out for a malignant tumour:
  - Was a macroscopic R0-resection performed (surgical)?
    - No
    - Yes
  - Was a microscopic R0-resection performed (pathological)?
    - No
    - Was the proximal margin involved?
      - No
      - Yes
    - Yes
  - Was there lymphovascular invasion?
    - No
    - Yes
  - Was there perineural invasion?
    - No
    - Yes

Gastrectomy:
- No
- Partial
- Total

Lymphadenectomy:
- No
- Yes
  - Field:
    - 1-field
    - 2-field
    - 3-field
  - Region lymphadenectomy:
    - Abdomen
    - Chest
    - Neck unilateral
    - Neck bilateral
  - Number of loco-regional lymph nodes retrieved: ..........................................................
  - Number of metastatic loco-regional lymph nodes: ..........................................................
Other resections:
- No
- Yes
  - Pulmonary metastasis
  - Adrenal metastasis
  - Liver metastasis
  - Other, specify: .................................................................

Oesophageal conduit:
- Stomach
- Small bowel
- Colon

Anastomosis:
- Cervical
- Intrathoracic
- Other, specify: ........................................................................

Post-surgery

Postoperative complication(s) (90 days post-op, in hospital, Clavien-Dindo grade IIIb, IVa, IVb or V): (Link Clavien-Dindo grade: https://www.baus.org.uk/patients/surgical_outcomes/grading_of_surgical_complications.aspx)
- No
- Yes
  - Type of postoperative complication(s):
    - Pulmonary
      - Pneumonia
      - Pleural effusion requiring additional drainage procedure
      - Pneumothorax requiring treatment
      - Atelectasis mucous plugging requiring bronchoscopy
      - Respiratory failure requiring reintubation
      - Acute respiratory distress syndrome (ARDS)
      - Acute aspiration
      - Tracheobronchial injury
      - Chest tube maintenance for air leak >10 days
    - Cardiac
      - Cardiac arrest requiring CPR
      - Myocardial infarction
      - Dysrhythmia atrial requiring treatment
      - Dysrhythmia ventricular requiring treatment
      - Congestive heart failure requiring treatment
      - Pericarditis requiring treatment
    - Gastrointestinal
      - Oesophago-enteric leak from anastomosis, staple line, or localized conduit necrosis
        - Oesophago-enteric leak Clavien-Dindo grade: IIIb IVa IVb V
      - Conduit necrosis / failure
      - Ileus, defined as small bowel dysfunction preventing or delaying enteral feeding
      - Small bowel obstruction
      - Feeding J-tube complication
      - Pyloromyotomy/pyloroplasty complication
- Clostridium difficile infection
- Gastrointestinal bleeding requiring intervention or transfusion
- Delayed conduit emptying requiring intervention or delaying discharge or requiring maintenance of nasogastric tube drainage >7 days
- Pancreatitis
- Liver dysfunction
- Urologic
  - Acute renal insufficiency (doubling of baseline creatinine)
  - Acute renal failure requiring dialysis
  - Urinary tract infection
  - Urinary retention requiring reinsertion of urinary catheter, delaying discharge or discharge with urinary catheter
- Thromboembolic
  - Deep venous thrombosis
  - Pulmonary embolus
  - Stroke (CVA)
  - Peripheral thrombophlebitis
- Neurologic / psychiatric
  - Recurrent nerve injury
  - Other neurologic injury
  - Acute delirium
  - Delirium tremens
- Infection
  - Wound infection requiring opening wound or antibiotics
  - Central IV line infection requiring removal or antibiotics
  - Intrathoracic / intraabdominal abscess
  - Generalized sepsis
  - Other infections requiring antibiotics
- Wound / diaphragm
  - Thoracic wound dehiscence
  - Acute abdominal wound dehiscence
  - Acute diaphragmatic hernia
- Other
  - Chyle leak
    - Chyle leak Clavien-Dindo grade: ◊ IIIb ◊ IVa ◊ IVb ◊ V
  - Prolonged fluid drainage >500 cc / day
  - Reoperation for reasons other than bleeding, anastomotic leak or conduit necrosis
  - Multiple organ dysfunction
  - Non-listed, Please specify: …………………………………………………………………………………………………………
    - General Clavien-Dindo grade (90 days post-op, in-hospital complications):
      ◊ IIIb
      ◊ IVa
      ◊ IVb
      ◊ V
* Only to be filled out for a malignant tumour:

- Was there adjuvant therapy after surgery?
  - No
  - Yes
    - Systemic therapy
    - Radiotherapy
    - Combined therapy (systemic + radiotherapy)

Redo surgery?
  - No
  - Yes
    - Take down conduit
    - Delayed reconstruction
    - Other, specify: .................................................................

Was the patient discharged after surgery during the 90-day post-op period?
  - No
  - Yes
    - Discharge date after surgery: ........../........../.......... (dd/mm/yyyy)
    - Destination?
      - Home
      - Rehabilitation centre
      - Nursing home
      - Transfer to another hospital
        - Name: ...........................................................................
        - Because of complications?
          - No
          - Yes

Re-admission within 30 days after discharge:
  - No
  - Unknown
  - Yes, in the hospital where the surgery was performed
    - Reason for re-admission: ................................................................
  - Yes, in another hospital
    - Reason for re-admission: ................................................................

Did the patient die during the 90-day post-op period?
  - No
  - Yes
    - In-hospital?
      - No
      - Yes
        - Date of death: ........../........../.......... (dd/mm/yyyy)
        - Cause of death: ........................................................................

Was the patient included in a clinical trial for (neo)adjuvant therapy or surgery?
  - No
  - Unknown
  - Yes
    - EudraCT number: ...................................................... or NCT number: ..................................................