

Oesophageal Cancer

The 2011 National Cancer Registry (NCR) report shows that oesophageal cancer (OC) is the 7th most common cancer in males (5.56 per 100 000 age standardised incidence rate) and the 9th most common cancer in females (3.06 per 100 000 age standardised incidence rate). In Southern Africa, the incidence of OC is nearly double in males (13.7 per 100 000 age standardised incident rate) and about (6.7 per 100 000 age standardised incident rate) for females. Men are about three times more likely than women to develop oesophageal cancer. The chances of developing oesophageal cancer increase with age.

What is Cancer?

Cancer is a disease in which the process of normal controlled division and growth of body cell is lost. These cancerous cells sooner or later spread to the tissue of other organs, affecting their adequate functioning. They also deprive the normal cells of essential nutrients needed for growth and development.

Which part of the body is the Oesophagus?

The oesophagus is a hollow, muscular tube that moves food and liquid from the throat to the stomach. The wall of the oesophagus is made up of several layers of tissue, including mucous membrane (inner lining), muscle, and connective tissue. Oesophageal cancer occurs when cells in the oesophagus develop errors in their DNA. The errors make cells grow and divide out of control. The accumulating abnormal cells form a tumor in the oesophagus. This tumor can grow and invade nearby structures and other parts of the body.

The two most common forms of esophageal cancer are based on the type of cells that become malignant (cancerous):

- Squamous cell carcinoma is the cancer that forms in squamous cells (the thin, flat cells lining the inner wall of the esophagus). This cancer is most often found in the upper and middle part of the esophagus, but can occur anywhere along the esophagus. This is also called epidermoid carcinoma.
- Adenocarcinoma is a type of cancer that begins in the cells of the mucus secreting glands in the oesophagus.

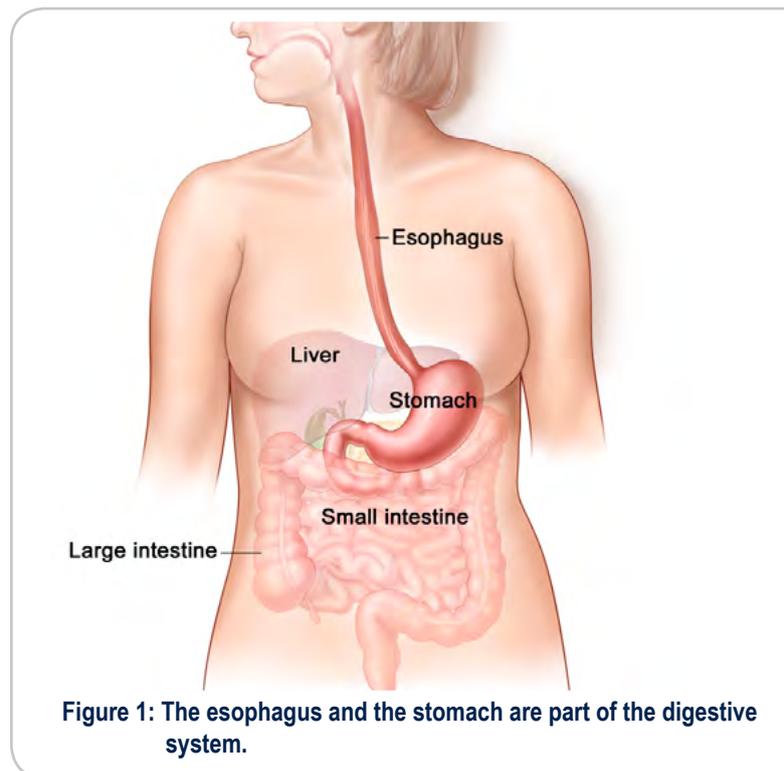


Figure 1: The esophagus and the stomach are part of the digestive system.

Common signs and symptoms of Oesophageal cancer

Check with your doctor if you have any of the following symptoms:

- Painful or difficult swallowing.
- Unintended weight loss.
- Pain behind the breastbone.
- Hoarseness of the voice and cough.
- Indigestion and heartburn.

Diagnosis (Work-up)

The following investigations may be done to detect (find) and make the correct diagnosis.

- **Physical examination**
- **Chest x-ray**
- **Barium swallow:** A series of x-rays of the oesophagus and stomach with contrast medium.
- **Upper GI Gastroscopy:** A procedure used to examine the digestive tract using a flexible tube (endoscope). Additional procedures can be carried out in the course of a gastroscopy.
- **Blood Tests:** Routine blood tests for cancer.
- **Biopsy:** Tissue sample will be taken for examination under the microscope and is usually the basis of the diagnosis.

The following additional investigations are carried out to determine the extent of the cancer:

- **Endoscopic ultrasound:** A procedure where a flexible tube with high frequency sound waves provides detailed imaging of the lining of the oesophagus.
- **Computed tomographic (CT):** Chest and Abdomen
- **PET-CT (positron-emission tomography):** A type of imaging that reveals information about the structure and function of the cells and tissues of the oesophagus.

Risk factors include the following:

- Gastroesophageal reflux disease (GERD)
- Smoking
- Precancerous changes in the cells of the esophagus (Barrett's esophagus)
- Obesity
- Excessive alcohol intake

- Bile reflux
- Difficulty swallowing because of an esophageal sphincter that won't relax (achalasia)
- A steady habit of drinking very hot liquids
- Radiation treatment to the chest or upper abdomen

Treatment of oesophageal cancer

There are different types of treatment for patients with oesophageal cancer namely;

- **Surgery:** oesophagectomy (removal of part of the oesophagus)
- **Radiation therapy:** Uses high-energy x-rays or other types of radiation to kill cancer cells or prevent them from multiplying.
- **Chemotherapy:** Uses medication to stop the growth of cancer cells, either by killing the cells or by stopping them from dividing. Chemotherapy is taken by mouth or injected into a vein (blood vessel) or muscle.
- **Chemoradiation:** Combines chemotherapy and radiation therapy to enhance the effects of the combined intervention.
- **Laser therapy:** Uses a laser beam (a narrow beam of intense light) to kill cancer cells.

PMB Entitlements for cancer of the Oesophagus

Cancer of the oesophagus is a PMB condition under the Diagnosis and Treatment Pair (DTP) code 950C. The treatment component specified for this DTP according to the PMB Regulations is medical and surgical management, which includes chemotherapy and radiation therapy. The diagnosis, treatment and care of PMBs should be funded by medical schemes irrespective of your plan option.

| SERVICE | DESCRIPTION | COMMENTS |
|--------------------------|--|--|
| Clinical assessment | Consultations | GP, GIT specialist |
| Imaging radiology | Chest x-ray | Used to detect if the cancer has spread to the lungs, fluid in the lungs |
| | CT Study of chest and abdomen | Optimal test for staging early cancer |
| | PET-CT– on specialist motivation for staging | To detect very small distant metastases |
| | Barium swallow with contrast medium | To assess the extent to which the cancer has spread in the gastrointestinal tract |
| Imaging Procedures | Upper gastro-intestinal endoscopy | Examines the digestive tract |
| | Endoscopic ultrasound | For accurate assessment of depth of tumour invasion and to check the status of the lymph nodes |
| Histological assessment | Histology/Cytology | |
| Laboratory investigation | Full blood count | |
| | Liver function test | |
| | Renal Function | |

Treatment options for early stage oesophageal cancer

Mainstay treatment modalities

The mainstay treatment options for early oesophageal cancer include **endoscopic therapy, surgical oesophagotomy and chemoradiation**. These should be funded according to the PMB Regulations. Treatment options are influenced by the type of cancer, location of cancer and the patient's clinical status.

Surgical Management

- Oesophagectomy and Lymph node removal: Standard of care for surgical treatment.
- Endoscopic resection: recommended as an alternative to oesophagectomy in patients without lymph node involvement.
- Laparoscopic resection: not recommended as PMB level of care

Chemotherapy & Chemoradiation

- Definitive chemoradiation: only recommended in cases of proximal cancer in patients unfit for surgery.
- Neo-adjuvant chemotherapy or chemoradiation: recommended in patients with surgically resectable cancer

Radiotherapy

- Radiotherapy constitutes PMB level of care.
- Radiotherapy treatment alone (monotherapy) before surgery is not recommended and not considered to be PMB level of care.
- Radiotherapy may be given in combination with chemotherapy for locally advanced, resectable cancer.

Palliative care

Palliative therapy is treatment aimed at preventing or relieving symptoms in advanced or late cancer. The main purpose of this type of treatment is to improve the patient's comfort and quality of life.

Pain management

Use of different classes of medication for pain relief including:

- Opioids
- Non-Opioids
- Non-steroidal anti-inflammatory medicines

References

1. Council for Medical Schemes. (2017). PMB definition guideline for early stage gastric/ gastro-oesophageal junction cancer. Pretoria: Council for Medical Schemes. Available from: <http://www.medicalschemes.com/Publications.aspx> [Accessed 18 January 2018]
2. Figure 1. The esophagus and the stomach are part of the digestive system. Available from: <https://www.cancer.gov/types/stomach> [Accessed 03 November 2017]

WHAT ARE PRESCRIBED MINIMUM BENEFITS?

Prescribed Minimum Benefits (PMBs) are defined by law. They are the minimum level of diagnosis, treatment, and care that your medical scheme must cover. The scheme must pay for your PMB condition/s from its risk pool, and in full. There are medical interventions available over and above those prescribed for PMB conditions, but your scheme may choose not to pay for them. A designated service provider (DSP) is your scheme's healthcare provider (e.g. doctor, pharmacist, hospital) for the treatment or care for a PMB condition. If you choose to use a non-DSP voluntarily, you may have to pay a portion of the bill as a co-payment. Co-payment will not apply where a member has involuntarily used a non-DSP owing to an emergency medical condition, significant distance from a DSP, or non availability of a DSP. PMBs include 270 serious health conditions, any emergency conditions; and 25 chronic diseases. Information on these conditions can be found on the Council for Medical Schemes (CMS) [website](#).

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Contact information:

information@medicalschemes.com
Hotline: 0861 123 267
Fax: 012 430 7644

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