

SONCOS

Stichting Oncologische Samenwerking



STANDARDISATION OF MULTIDISCIPLINARY CANCER CARE IN THE NETHERLANDS

SONCOS STANDARDISATION REPORT 5 2017



The following organisations contributed to this SONCOS standardisation report 5:

- Dutch Society for Surgical Oncology*

NVCO (Nederlandse Vereniging voor Chirurgische Oncologie)

- Dutch Society for Medical Oncology

NVMO (Nederlandse Vereniging voor Medische Oncologie)

- Dutch Society for Radiotherapy and Oncology

NVRO (Nederlandse Vereniging voor Radiotherapie en Oncologie)

- National AYA "Young & Cancer" Platform

AYA

- Dutch Orbital Society

NOG (Nederlands Oogheelkundig Genootschap)

- Dutch Federation of Cancer Patients' Organisations

NFK (Nederlandse Federatie van Kankerpatiëntenorganisaties)

- Dutch Association of Physicians in Lung Disease and Tuberculosis

NVALT (Nederlandse Vereniging van Artsen voor Longziekten en Tuberculose)

- Dutch Society for Dermatology and Venereology

NVDV (Nederlandse Vereniging voor Dermatologie en Venereologie)

- Dutch Endocrine Society

NVvE (Nederlandse Vereniging voor Endocrinologie)

- Netherlands Association for Gastrointestinal Surgery*

NVGIC (Nederlandse Vereniging voor Gastro-intestinale Chirurgie)

- Association of Surgeons of the Netherlands

NVvH (Nederlandse Vereniging voor Heelkunde)

- Dutch Society of Ear, Nose and Throat Surgery

NVKNO (Nederlandse Vereniging voor Keel-Neus-Oorheelkunde)

- Dutch Society of Clinical Geriatrics

NVKG (Nederlandse Vereniging voor Klinisch Gerieters)

- Dutch Society of Lung Surgery*

NVvL (Nederlandse Vereniging voor Longchirurgie)

- Netherlands Society of Gastroenterologists

NVMDL (Nederlandse Vereniging voor Maag-darm-leverartsen)

- Dutch Neurosurgical Society

NVvN (Nederlandse Vereniging voor Neurochirurgie)

- Netherlands Society of Neurology

NVN (Nederlandse Vereniging voor Neurologie)

- Dutch Society of Nuclear Medicine

NVNG (Nederlandse Vereniging voor Nucleaire Geneeskunde)

- Dutch Society of Obstetrics and Gynaecology

NVOG (Nederlandse Vereniging voor Obstetrie en Gynaecologie)

- Dutch Pathological Society

NVvP (Nederlandse Vereniging voor Pathologie)

- Dutch Society for Plastic Surgery

NVPC (Nederlandse Vereniging voor Plastische Chirurgie)

- Netherlands Psychiatric Association

NVvP (Nederlandse Vereniging voor Psychiatrie)

- Radiological Society of the Netherlands

NVvR (Nederlandse Vereniging voor Radiologie)

- Netherlands Association for Cardio-Thoracic Surgery

NVT (Nederlandse Vereniging voor Thoraxchirurgie)

- Dutch Association of Urology

NVU (Nederlandse Vereniging voor Urologie)

- Dutch Head and Neck Cancer Cooperative Study Group

NWHHT (Nederlandse Werkgroep Hoofd-Hals Tumoren)

- Dutch Oncology Nursing Society

V&VN Oncologie (Vereniging van Verpleegkundigen & Verzorgenden Nederland Oncologie)

- Dutch Society for Clinical Genetics

VKGN (Vereniging voor Klinische Genetica Nederland)

* The NVCO, NVGIC and the NVvL are official subsocieties of the Association of Surgeons of the Netherlands (NVvH)



INTRODUCTION

This is the fifth SONCOS standardisation report. The first SONCOS standardisation report was published in December 2012. The report met the needs of the scientific societies of surgical oncologists (NVCO), medical oncologists (NVMO) and radiation oncologists (NVRO) to define the conditions that good cancer care should fulfil. Standards are not a goal as such, but are based on the aim of medical specialists to continuously improve the care for their patients. Professionalism is therefore the starting point of the standards. The standards form part of the professional quality system of scientific societies of medical specialists, which also include quality registrations and quality assurance inspections. However, cancer care is by its very nature a multidisciplinary form of care, as evidenced by the annual increase in the number of disciplines contributing to the SONCOS standards. This year, 28 parties contributed to the development of the standardisation report.

Cancer care is continuously subject to change, as a result of technical innovations, scientific insights, experiences from daily practice and consensus within the scientific societies. This is the reason that the SONCOS standardisation report is a dynamic report and is revised annually. The aim is to continuously strive towards improvements in the care of cancer patients. The agreement for the centres that provide cancer care is that they have one year after publication of new standards to implement them locally, unless otherwise described in this document.

As in previous years, the report contains a general section and a tumour-specific section listing the requirements that an cancer centre must meet. The order of the tumour-specific section was historically determined in previous versions, i.e. depending on when the scientific societies joined SONCOS. In this version of the standardisation report, we opted to list the various tumour classes in alphabetical order. A number of tumour classes include various tumour types. The tumour types are classified by subject. For example, the gastrointestinal tumours are categorised in the order of the digestive system. The appendices containing the quality standards of the various scientific societies are incorporated in full in the report.



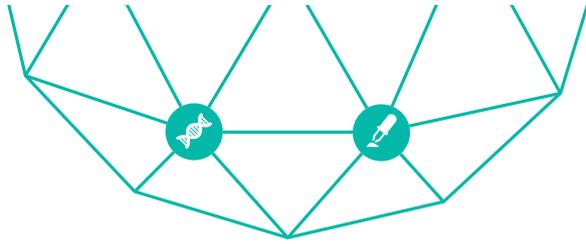
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- Appendix A: NVvR standards document (not included in this translated document)
- Appendix B: NVNG quality guidelines (not included in this translated document)
- Appendix C: Focus areas of the NVVP (not included in this translated document)
- Appendix D: Quality standards in radiotherapy (not included in this translated document)

1. General conditions for cancer care



A healthcare facility that offers cancer care must at least have access to/participate in:

Information and organisation

- Information must be available to patients (e.g. via a website) stating the facilities and the treatment options available at the healthcare facility in question for the cancer care that is provided.
- The healthcare facility demonstrates its commitment to a healthy lifestyle, among others by actively discouraging smoking.
- The healthcare facility participates in the quality controls accepted by the oncological scientific societies.
- The facility participates in the national quality registrations approved by the oncological scientific societies.
- A Cancer Committee in which all medical, paramedical and nursing disciplines that are involved in cancer care are represented. The tasks and responsibilities of the Cancer Committee are described in the document “Quality framework for the organisation of cancer care” (IKNL October 2014, which can be consulted via www.iknl.nl).
- A collaboration agreement with one or more reference centres for consultation and/or referral, recording what the “service level” is, for example within which time frame a patient can be seen.
- A reference centre must at least meet the standards described in this document. It is possible that a reference centre cannot perform this task for all tumour types and therefore it may be necessary for a healthcare facility to collaborate with several reference centres in order to obtain the correct expertise for the care provided. Furthermore, a reference centre must provide second opinions and participate actively in research and education, as evidenced by participation in and initiation of scientific research, relevant publications and organisation of (supra)regional training activities.
- A Department of Radiotherapy or a collaboration agreement with a Department of Radiotherapy.
- One or more multidisciplinary meetings should be conducted, with at least a weekly frequency for each meeting (deviation is permitted for less common tumours, provided that the biological behaviour of the tumour is permissible, then the frequency can be changed to fortnightly), in which at least 90% of the patients are discussed with the option of consulting the reference centre. The low-grade skin and bladder tumours are exempt from this. Patients are discussed prior to the primary treatment and - in the case of primary surgical treatment - they are also discussed post-operatively with regard to subsequent treatment and follow-up. Deviation is permitted under certain circumstances, such as the primary surgical treatment of a skin lesion suspected of melanoma, or an acute procedure in case of obstruction due to a tumour of the digestive tract. For all patients that are discussed, the treatment plan that is decided on is recorded in the patient file. For some tumours, it is difficult to determine in which multidisciplinary meeting the patient should be discussed, for example a melanoma in the head and neck region. In these cases, to offer the best quality of care, it may be necessary to discuss the patient in two multidisciplinary meetings, or to

meet with all physicians of importance to this patient in some other way. The report on the multidisciplinary meeting is sent to the general practitioner (GP) within 2 working days.

- Treatments are performed in accordance with national and/or regional guidelines. Carefully considered deviations are permitted, in which case the motivation should be recorded in the patient file.
- The waiting time for a first Outpatient Clinic visit for a patient with a suspected malignancy is no more than one week. The maximum turnaround time for diagnostics is three weeks and the time between the first Outpatient Clinic visit and the start of therapy is no more than six weeks. If a patient is referred to another healthcare facility, this turnaround time may be extended by three weeks. Deviation from these time frames is permitted in exceptional cases and situations where there are substantial medical reasons to deviate. For the conditions in question, treatment protocols that are up to date (i.e. a maximum of 3 years old) are followed.
- Care pathways are available for frequently treated conditions (i.e. 20 or more patients per year), stating which examinations should be performed, what the minimum turnaround times are, which indicators are collected and who is responsible for the examinations and treatment at which time.
- It is highly preferable that patients who have been diagnosed with a malignancy see an oncology nurse for further information and guidance before start of treatment.
- It should always be clear to the patient and recorded in the patient file who the primary treating specialist is.
- In addition to the primary treating specialist, the patient has access to one permanent, supportive care provider, such as a nurse practitioner, a specialised nurse or another care provider who can fulfil the roles listed below:
 - This care provider forms part of a team in which team members can cover for each other and this team is part of the multidisciplinary team for diagnosis and treatment.
 - This care provider oversees the entire multidisciplinary and transmural path of diagnosis, treatment and follow-up care.
 - This care provider is specialised in the condition in question (by means of an official specialisation or as a focus area).
 - This care provider knows the patient in his/her entire context.
 - This care provider functions as the permanent point of contact for the patient. This means that:
 - This care provider forms a first point of contact for the patient during the entire process of diagnosis and treatment;
 - And this care provider has access to the patient file and can be approached easily and quickly by telephone or e-mail if the patient or his/her family has/have any questions.
- Consensus about follow-up after initial treatment have been recorded in the treatment protocols/ care pathways.
- Complications are registered by all specialisms involved.
- A quality improvement program must be in place: complications are discussed at least twice a year, from which improvement actions are initiated for frequent and/or severe complications. Results from the tumour-specific quality registrations listed in this document are discussed each quarter and improvement actions are implemented if necessary, with the effect being evaluated.
- The Cancer Committee of a hospital produces an annual report, which includes a report from all multidisciplinary teams.

Facilities

- Adequate (as per IKNL inspection requirements) **Outpatient Clinic facilities**, designed to offer multidisciplinary cancer care. Care providers in training can be employed under supervision.
- An adequate (as per IKNL inspection requirements) **day care facility**, staffed by qualified employees, for the treatment of the condition in question, including complications (e.g. medical oncology day care centre equipped for the administration of chemotherapy). At least half of the nursing staff must be an oncology nurse (in training). An oncology nurse is a person who meets one of the following requirements:

- Is in possession of a degree approved by the Healthcare Training Board (College Zorg Opleidingen (CZO)).
- If certified between 2002 and 2006: a degree that has been approved in the National System for Nursing Training (Landelijke Regeling Verpleegkundige Vervolgopleidingen (LRVV)).
- If certified before 2002: a degree obtained from a healthcare facility that was awarded an LRVV accreditation for this training between 2002 and 2008.

In the case of a day care centre where non-cancer treatments also take place, at least half of the nursing staff that cares for the cancer patients must be an oncology nurse (in training). At least one oncology nurse must be on duty during each shift in the day care centre. The administration of antineoplastic agents is performed by an oncology nurse or by someone in training to become an oncology nurse under the supervision of a qualified oncology nurse. Healthcare facilities have until 1 January 2022 to meet this standard regarding the nursing staff.

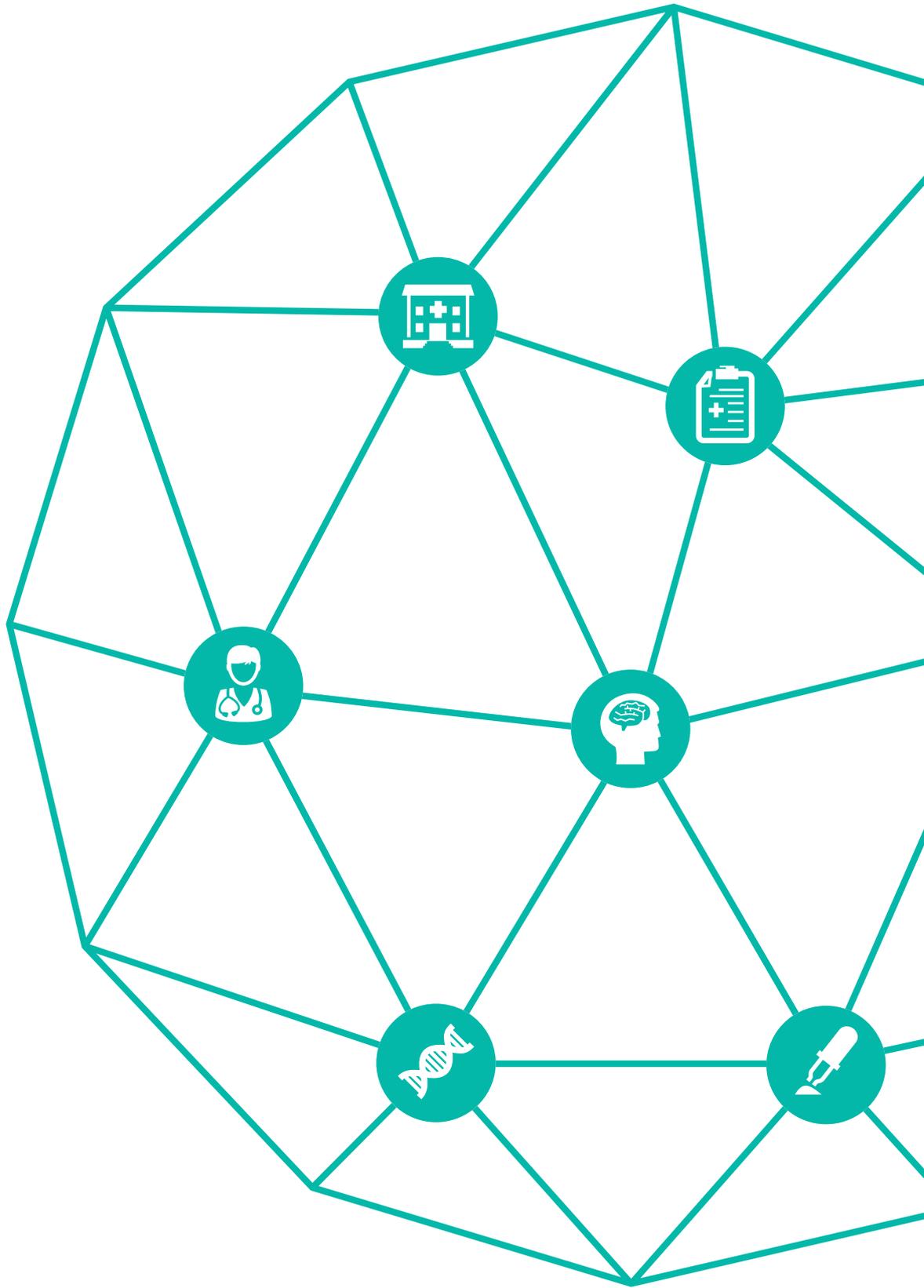
- An adequate (as per IKNL inspection requirements) inpatient department, staffed by qualified employees, for the treatment of the condition in question, including its complications. At least half of the nursing staff must be an oncology nurse (in training). In case of **inpatient departments** that also care for non-cancer patients, at least half of the nursing staff that cares for the cancer patients must be an oncology nurse or in training to become an oncology nurse. At least one oncology nurse must be on duty during each shift in the concerning department. The administration of antineoplastic agents is performed by an oncology nurse or by someone in training to become an oncology nurse under the supervision of a qualified oncology nurse. Healthcare facilities have until 1 January 2022 to meet this standard regarding the nursing staff.
- An exception to the abovementioned requirements for oncology nurses applies to day care centres and inpatient departments that care for neuro-cancer patients. A specialised training is being developed for these departments, in which training is provided for both neurological and oncological skills. The standard referred to above for oncology nurses applies to these specific neuro-oncology nurses in the case of neuro-oncology departments.
- If a cancer patient is admitted to an inpatient department that is not designed to offer oncological care as described above (e.g. due to an emergency admission), then consultation of the relevant professional care providers (oncology nurse, physicians) is available.
- Each nurse who is responsible for the care given to cancer patients can demonstrate - by participation in the quality register of V&VN (Dutch Association of Nurses and Carers) and by keeping a portfolio - that his/her skills are up-to-date in the field of oncology nursing.
- **Emergency department** where expertise in cancer care is available 24 hours a day, 7 days a week for all cancer patients and treatments offered by the healthcare facility, including by means of up-to-date treatment protocols. Care providers in training can also be employed under supervision. Healthcare facilities that are unable to offer 24/7 emergency care for the patients that they treat must have documented agreements with a healthcare facility that does have such an Emergency department and can offer the abovementioned care to their patients.
- An adequately designed **operating room** complex with proven expertise in and facilities for all types of operations that are performed on cancer patients in the healthcare facility in question.
- At least two doctors of internal medicine with registration in the focus area "oncology". As a number of healthcare facilities will not be able to meet this requirement at short notice, the decision was made in consultation between the Dutch Society for Internal Medicine (Nederlandse Internisten Vereniging (NIV)) and the Dutch Society for Medical Oncology (Nederlandse Vereniging voor Medische Oncologie (NVMO)) to grant an extension to give the relevant doctors of internal medicine the chance to complete their training for the registration in the focus area "oncology". As of 1 January 2018, all healthcare facilities must have at least two doctors of internal medicine with registration in the focus area "oncology". In the interim period, the healthcare facility must ensure that a medical oncologist can always be consulted on working days, also during holidays.
- At least two surgeons with certification in oncological or gastrointestinal surgery.
- At least one plastic surgeon available on request, from a different centre if necessary.
- The medical oncologists (or doctors of internal medicine in training to become medical oncologists in accordance with the abovementioned regulation) and surgeons with the abovementioned certification must provide continuity of care for their patients, for example by being present on

- working days in the healthcare facility as consistently as possible. If it is not possible to be present, then an option to consult a medical oncologist and surgeon with certification must be available.
- At least two pulmonologists who are qualified in the field of diagnosis and treatment of pulmonary cancer.
 - For other specialisms and focus areas, there must be at least two specialists with proven specific expertise in the condition for which care is being provided.
 - In this document, the term “proven specific expertise” means that the specialist for the condition in question has experience, follows additional training and regularly treats/diagnoses patients with such conditions at a level that is accepted by his/her own professional organisation.
 - **Department of Radiology**, functioning in accordance with the “Standards Document of the Radiological Society of the Netherlands” (approved 04-06-2015, can be consulted via www.radiologen.nl), with radiologists who have a focus area for the conditions that are treated.
 - **Department of Nuclear Medicine**, functioning in accordance with the “Quality Guidelines of the Dutch Society of Nuclear Medicine 2014”, with suitably qualified nuclear medicine physicians (can be consulted via www.soncos.org).
 - **Department of Pathology**, functioning in accordance with the requirements of the Dutch Pathological Society (NVVP). This department employs pathologists (so-called specialized pathologists) who meet the criteria of the NVVP for the focus areas in the conditions treated by the healthcare facility/facilities to which they offer their services.
 - A healthcare facility must also have an adequately organised laboratory for Clinical Chemistry, Medical Microbiology (CCKL/ISO15189 accredited) and Clinical Pharmacy. Criteria for Clinical Chemistry and Clinical Pharmacy to follow.
 - Radiotherapeutic care with specified contacts and agreements for referral, recording what the “service level” is, for example within which time frame a patient can be seen. **The Department of Radiotherapy** meets the standards set out in the “Quality Standards in Radiotherapy in the Netherlands” (version 3.0 NVRO, 28 November 2014). This document has been included as Appendix 1.
 - **Department of Human Genetics** with specified contacts and agreements for referral, recording what the “service level” is. This includes at least a description of the waiting time to diagnostic tests and the time frame in which the diagnosis, including a conversation with the patient about the results, is completed. In addition, this document states under which conditions specific fast-track diagnostics can be used.
 - **Psychosocial care**, with a record of the “service level”. This includes at least a description of the timepoints at which patients’ needs for psychosocial support are checked and how further referral is organised.
 - A **Department of Nutrition and Dietetics**, with a record of the “service level”. This includes at least a description of the points at which patients’ nutritional status is checked and how further referral to the Department of Nutrition and Dietetics is organised.
 - **A Pain Team**, with an anaesthesiologist with a registration in pain medicine who is dedicated to oncology, with a record of the “service level”.
 - Facilities and expertise in **palliative care**:
 - As of 1 January 2017, the healthcare facility must have a multidisciplinary palliative care team in place that works according to the guidelines on palliative care (General principles of palliative care, www.pallialine.nl, 2010) and uses an instrument to measure the need for palliative care.
 - The multidisciplinary team consists of at least two medical specialists and a nurse with specific expertise in palliative care. The nurse is preferably an oncology nurse or nurse practitioner in oncology or anaesthesiology/pain medicine.
 - At least one of the medical specialists in the multidisciplinary team must have completed specific training in the field of palliative care by 1 January 2017. It is highly preferable that the other care providers involved have also completed specific training in palliative care.
 - There is a permanent option to consult a medical oncologist, anaesthesiologist, neurologist, pulmonologist, gastro-enterologist, radiotherapist, pharmacist, psychologist, psychiatrist, pastoral carer and social worker, all with expertise in palliative care, if they do not already form part of the multidisciplinary team.

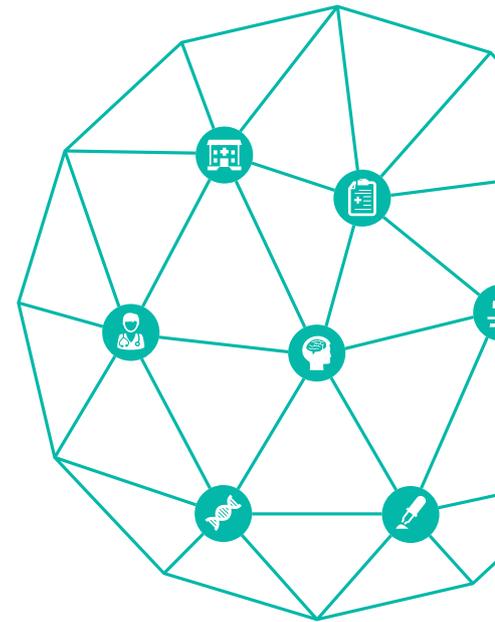
- The multidisciplinary team meets at least on a weekly basis.
- A structured and timely transmural exchange of information must take place in order to provide optimum palliative care in the home situation. The multidisciplinary team must also be available for consultation about patients who have been discharged and are receiving palliative care at home under the supervision of their GP.

Treatment and research

- Systemic oncological treatments (chemotherapeutics, endocrine therapy, immunotherapy, biologicals) are prescribed by medical specialists with proven expertise (i.e. adequate training and relevant experience for the therapy that will be administered) in the application of the therapy in question, including complications.
- The systemic treatments must be administered according to a treatment protocol that has been established in a multidisciplinary team, of which at least the medical oncologist is a member. Treatment protocols for pulmonary oncology form an exception, due to the specific expertise of the pulmonologists in this field.
- If immunotherapy with checkpoint inhibitors is to be used for tumours other than metastatic melanoma, then a medical oncologist with proven specific expertise in immunotherapy must be available for the weekly multidisciplinary meetings. In addition, a multidisciplinary team - including a gastro-enterologist, dermatologist and pulmonologist - must be available in the healthcare facility in question to treat possible side effects. If immunotherapy with checkpoint inhibitors is used to treat lung cancer, then a pulmonologist who is skilled in this type of treatment must be available for the weekly multidisciplinary meeting.
- Any centre where immunotherapy is administered must treat at least 20 patients per year with this type of treatment. This can include patients with different types of cancer (for example melanoma, lung cancer or kidney cancer). In addition, the minimum standards for each specific tumour type must be met (see below).
- Radiotherapy, including brachytherapy, is performed by a radiation oncologist according to the quality requirements set out by the NVRO.
- If chemoradiotherapy - with or without a subsequent surgical procedure - is indicated, then this treatment should preferably take place in one facility, particularly if this is performed concurrently instead of sequentially. If the chemotherapy and radiotherapy are given at two separate locations, then this can only take place if the two healthcare facilities where these treatments are provided have recorded this in a "service level agreement" (SLA). This SLA must at least include a definition of the turnaround times, how responsibilities are divided and how the medical care is arranged in the event of complications.
- There is access to a Department of Nuclear Medicine, in which systemic treatments with radionuclides can be administered.
- The institution participates in patient-related research. The institution participates in at least 3 clinical studies, in which at least 15 patients are included per year over a period of 3 years.
- The option exists to apply newly authorised therapies in a healthcare facility for which there is no experience yet, but to which requirements do apply. The team of care providers involved in such a therapy must acquire training and experience before the start of the treatment, for example by attending meetings and courses. The healthcare facility's infrastructure must be (made) suitable for application of the new therapy, including dealing with complications. An evaluation will take place after two years and this must demonstrate that the standards as listed in this document for the condition and therapy in question can be met within an additional two years, in order to be allowed to continue administering the new therapy in the healthcare facility.
- If a patient wishes to receive palliative treatment or best supportive care in a healthcare facility other than the facility where the primary treatment was administered (e.g. closer to home), this wish can be granted with consent of all parties concerned. This is allowed even if the intended healthcare facility does not offer the relevant primary therapy (e.g. palliative chemotherapy for metastatic oesophageal cancer in a healthcare facility where oesophageal surgery is not performed).



2. Conditions for cancer care of specific tumour types



BONE AND SOFT TISSUE TUMOURS

Malignant bone tumours

Considering the very rare nature of these tumours and the official allocation of four reference centres in the Netherlands for primary bone tumours (LUMC, RadboudUMC, UMCG and AMC), these patients should be referred to one of these centres. The treatment or treatment advice is provided by these centres.

Soft tissue tumours

Soft-tissue tumours form a heterogeneous group of rare tumours, classified into more than 50 histological subtypes, with the ongoing development of medicinal treatments tailored to a specific tumour type. Both diagnosis and treatment require specific expertise that are only available in a limited number of reference centres. As a result, there are strict requirements that must be met:

- Availability of ultrasound-guided histological biopsy.
- An MRI scanner is available, with set time frames in which the MRI can be performed and reports are provided by a radiologist with the required focus area.
- There is access to a Department of Nuclear Medicine that has a PET/CT scanner.
- There is access to a Department of Pathology with proven specific expertise in the field of sarcomas, including molecular diagnostics.
- There is permanent contact with a reference centre with proven specific expertise in soft-tissue sarcomas.
- There is a multidisciplinary team for the discussion of the diagnostic and treatment course, consisting of at least: surgical oncologist, medical oncologist, radiologist, radiation oncologist, pathologist, representative from the reference centre, case manager and other nurses if necessary.
- A multidisciplinary meeting takes place at least once a week, in which all patients are discussed with the reference centre prior to treatment.
- The advice for diagnosis and treatment formulated in the multidisciplinary meeting (including the facility where the treatment will take place) is binding.
- A multidisciplinary meeting takes place after the treatment/operation.
- At least 10 new patients per year receive primary surgical treatment.
- The decision regarding systemic treatment, including the facility where this will be administered, is taken in consultation with the reference centre.

DERMATOLOGICAL TUMOURS

Melanoma

For the surgical treatment of malignant melanoma, a healthcare facility must have or meet the following requirements:

- There is easy access to a Department of Dermatology with proven specific expertise in the field of melanoma, with a record of the “service level”. This record at least states that a patient can be seen within at least two working days on request.
- There is access to a Department of Pathology with proven specific expertise in the field of melanoma, with access to all the required techniques.
- There is access to a Department of Nuclear Medicine that has a PET/CT facility.
- There is access to a Department of Nuclear Medicine that can perform the sentinel node procedure on melanoma patients.
- There are at least two surgeons with proven specific expertise in performing the sentinel node procedure in locations specific to melanoma. There is an operating theatre with adequate facilities, including a gamma probe.
- At least the following specialists must be represented in the weekly multidisciplinary meeting: surgeon, medical oncologist, radiologist, radiation oncologist, pathologist, case manager and/or oncology nurse and/or a specialised nurse specialist in oncology and other nurses if necessary. There must be an option to consult a representative from the melanoma centre in this weekly meeting.
- The melanoma centre must be consulted prior to the treatment of patients with stage IIIb, IIIc and IV disease.
- Inguinal lymph node dissections (possibly including iliac/obturator nodes) to check for lymph node metastases of melanoma should only take place in healthcare facilities that perform at least 10 of these procedures per year.
- Isolated limb perfusions or isolated limb infusions should only take place in healthcare facilities that perform at least 10 of these procedures per year.

For the systemic treatment of metastatic malignant melanoma, a healthcare facility must have or meet the following requirements in addition to meeting the abovementioned requirements for surgical treatment:

- The treatment of patients with a metastatic melanoma (stage IV) should only take place in a melanoma centre or in a healthcare facility that has the official status of “partner of a melanoma centre”.
- A melanoma centre has at least two medical oncologists with proven specific expertise in immunotherapy and targeted therapy. In addition, a melanoma centre has proven involvement in the initiation of new diagnostic tests and/or new treatments in the field of melanoma.
- A melanoma centre treats at least 20 patients with a metastatic melanoma on an annual basis.
- A partner of a melanoma centre should meet the same criteria as a melanoma centre, but does not need to be involved in the initiation of research into new diagnostic tests and/or treatment methods for metastatic melanoma. The partner must have documented working arrangements with a melanoma centre. One of the items stipulated in such an agreement is that a partner healthcare facility consults with the melanoma centre via a multidisciplinary meeting about a patient before starting a new treatment.
- Melanoma centres and partner healthcare facilities keep a record of all their patients with metastatic melanoma (Dutch Melanoma Treatment Registry, DMTR).
- In consultation with a melanoma centre, the decision can be made to offer treatment in a non-partner healthcare facility for a patient with metastatic melanoma in the form of chemotherapy or best supportive care for a patient who has no other treatment options available (anymore). The melanoma centre will also form a register of these patients.

Neuroendocrine tumours

Neuroendocrine tumours (including the high-grade neuroendocrine tumours, so-called neuroendocrine carcinomas) form a heterogeneous group of tumours of which the primary tumour can occur in various locations in the body, most frequently in the lungs, thymus, gastrointestinal tract and pancreas. These tumours can form part of a hereditary syndrome. Considering the rare nature of these tumours, it is preferable to consult with one of the reference centres. Patients with metastatic neuroendocrine tumours should always be discussed with and preferably also treated by the reference centres. The neuroendocrine tumours of the lung and small cell lung cancers do not fall under the requirements mentioned above; these fall under the conditions listed in the chapter on lung cancer.

A reference centre must have or meet the following requirements:

- There are at least two registered gastroenterologists with endoscopic ultrasound expertise, two surgeons, two radiologists, one nuclear medicine specialist, one pathologist, one radiotherapist, one medical oncologist, one endocrinologist, one pulmonologist, one anaesthetist, one specialised nurse, all with proven specific expertise in neuroendocrine tumour pathology.
- Multislice CT and MRI scanners are available, with set time frames in which the CT or MRI can be performed and reports are provided by a radiologist with the required focus area.
- Double balloon enteroscopy is available or there is a centre to which patients can be referred for double balloon enteroscopy.
- There is a Department of Nuclear Medicine with availability of NET-specific PET-CT (68 Gallium dotatate/18F-DOPA-PET, etc.) and octreotide scans, with set time frames in which the scans can be performed and reports are provided by a nuclear medicine specialist with the required expertise.
- At least the following specialists with proven specific expertise must be represented in the weekly multidisciplinary meeting: surgeon, gastroenterologist, doctor of internal medicine (endocrinologist/medical oncologist), pulmonologist (for the relevant patients), radiologist, radiation oncologist (for the relevant patients), nuclear medicine specialist, pathologist, case manager and/or specialised nurse.
- A reference centre sees at least 50 new patients per year.
- Pancreatic -neuroendocrine tumours must be operated on in a centre that also meets the requirements for surgery for pancreatic cancer.

Neuroendocrine tumours are regularly incidentally discovered during surgical procedures. A standard will be developed for consultation and advice regarding this patient group.

There is an option to treat patients with metastatic neuroendocrine tumours in a non-reference centre. The patient's case should always be presented to a reference centre before doing so. The reference centre will indicate whether or not the patient needs to be referred or can receive treatment on location in the non-reference centre and what the treatment plan should involve (including follow-up, evaluation and new consultation with the reference centre). This advice is binding. In this regard, one can opt for shared care, where a patient is evaluated and consultation takes place with the reference centre at certain times and further treatment takes place on location. In a non-reference centre, the care of patients with neuroendocrine tumours is coordinated by one specialist with specific expertise in neuroendocrine tumours. This centre must have access to the abovementioned imaging facilities (CT, MRI and nuclear medicine scans).

Thyroid cancer

For the treatment of thyroid cancer, a healthcare facility must have or meet the following requirements:

- Patients are discussed in a multidisciplinary meeting both before and after treatment/surgery, with this meeting taking place at least once every two weeks. The following specialists must be represented in this meeting: (endocrine) surgeon, medical oncologist, pathologist, nuclear medicine specialist, radiologist, all with proven specific expertise in the field of endocrine pathology.
- The treatment of thyroid cancer is currently based on level 1 and 2 healthcare facilities.
- In a level 1 healthcare facility, the thyroid cancer team consists of at least two surgeons with proven expertise in the field of thyroid surgery, two endocrinologists with proven specific expertise in the field of the treatment of thyroid cancer, two nuclear medicine specialists, a pathologist with proven specific expertise in thyroid cancer, a radiologist, a radiation oncologist, a medical oncologist. A level 1 healthcare facility performs at least 20 operations per year for (para)thyroid abnormalities and “state-of-the-art” cervical lymph node dissections or operations of local-regional recurrences.
- A level 2 healthcare facility meets almost all of the conditions for a level 1 healthcare facility. However, the treatment team only needs to have 1 surgeon with proven expertise in the field of thyroid surgery. A level 2 healthcare facility performs at least 20 operations per year for (para) thyroid abnormalities.
- Surgical treatment of proven or suspected lymph node metastases should take place in a level 1 healthcare facility. The surgical treatment of medullary or anaplastic thyroid cancer and thyroid cancer in children should take place in a level 1 healthcare facility with proven specific expertise.
- In the case of thyroid cancer, the treatment with I-131 should take place in the healthcare facility where the surgical treatment was performed. If the healthcare facility in question does not have the facilities for administration of I-131, then a service level agreement must be in place with a healthcare facility that does offer this treatment, including thyroid surgery. This agreement must state that the agreements reached in the multidisciplinary meeting will be complied. This agreement must also state the turnaround times.
- A healthcare facility that administers I-131 to patients with thyroid cancer must perform at least 10 ablative treatments per year.
- The follow-up of patients who have been treated for thyroid cancer should be performed by an endocrinologist with proven specific expertise in the field of thyroid cancer.
- The start of systemic therapy other than I-131 for metastatic, non-resectable thyroid tumours should take place in expertise centres.

Other endocrine tumours

In order to perform endocrine surgery, a healthcare facility must have or meet the following requirements:

- Patients are discussed in a multidisciplinary meeting both before and after treatment/surgery, with this meeting taking place at least once every two weeks. The following specialists must be present for this meeting: (endocrine) surgeon, endocrinologist, pathologist, nuclear medicine specialist, radiologist, all with proven specific expertise in the field of the endocrine pathology.
- (Neo-)adjuvant treatment is available.
- There is access to perioperative scintigraphy/gamma probe, ultrasound and/or rapid PTH assays.
- There are at least two surgeons, one radiologist, two nuclear medicine specialists, one pathologist, two endocrinologists, all with proven specific expertise in endocrine tumour pathology.
- There is close and formalised cooperation with the departments of Endocrinology and Nuclear Medicine.
- In the case of adrenal gland surgery, at least 10 operations (for benign and malignant conditions) must be performed per location per year.

Cancer of the oesophagus and stomach

For the treatment of oesophageal cancer and gastric cancer, a healthcare facility must have or meet the following requirements:

- There is an Endoscopy unit with adequate facilities (according to the requirements by the NVMDL), with a recovery area for monitoring after a diagnostic or therapeutic procedure.
- Oral endoscopic ultrasound can be performed.
- There are at least two registered gastroenterologists with experience in intervention endoscopies (dilatations, stent placement, oral endoscopic ultrasound).
- Surgery for both oesophageal cancer and gastric cancer is performed by at least two certified surgeons with proven specific expertise in oesophageal/stomach surgery. The other specialisms involved, such as anaesthesiology and interventional radiology, also have at least two specialists with proven specific expertise in the care of patients having surgery for oesophageal/gastric cancer.
- An interventional radiologist is on-call 24 hours a day, 7 days a week and is skilled in performing interventions on patients with complications as a result of major gastrointestinal and oncological procedures.
- There is access to a Department of Nuclear Medicine that has a PET/CT facility.
- Neo-adjuvant chemotherapy and chemoradiotherapy are available.
- With permission from the healthcare facility where the operation is performed, the medical treatment can take place in the referring healthcare facility. Imaging studies to evaluate the tumour are discussed in the multidisciplinary meeting of the healthcare facility where the operation will take place, establishing the treatment plan. A service level agreement must be in place between the healthcare facilities involved.
- Gastric surgery should preferably take place in centres where oesophageal surgery is also performed. If a healthcare facility only performs gastrectomies, then the facility must have a fixed contact with a centre that performs oesophageal surgery, for consultation and possible referral of patients with a tumour where it is not possible to preoperatively diagnose whether it is oesophageal cancer or gastric cancer.
- There is access to an intensive care unit with staff who are skilled in the care of patients following major gastrointestinal and oncological procedures.
- At least the following specialists must be represented in the weekly multidisciplinary meeting: surgeon, gastroenterologist, medical oncologist, radiologist, radiation oncologist, pathologist, nuclear medicine specialist, case manager and/or oncology nurse and/or a nurse specialist in oncology and other nurses if necessary. There must be an option to consult a representative from the reference centre in this weekly meeting.
- Each centre must perform at least 20 oesophageal resections for oesophageal cancer per year.
- Each centre must perform at least 20 gastrectomies for gastric cancer per year.
- Specific, rare procedures (such as colon interpositions) are concentrated within several centres in the Netherlands and patients are referred to these centres.
- The facility takes part in the Dutch Upper GI Cancer Audit (DUCA).

Pancreas / extrahepatic bile duct cancer

For the treatment of pancreatic cancer, a healthcare facility must meet all the conditions stated for the treatment of colorectal cancers and also have or meet the following requirements:

- There is an Endoscopy unit with adequate facilities (according to the requirements by the NVMDL), with the option to perform intervention ERCPs and with a recovery area for monitoring after a diagnostic or therapeutic procedure.
- Both diagnostic and therapeutic oral endoscopic ultrasound are available.
- There are at least two registered gastroenterologists with experience in intervention endoscopies (ERCP, dilatations, stent placement, oral endoscopic ultrasound).

- Surgery for pancreatic cancer is performed by at least two certified surgeons with proven specific expertise in surgery for pancreatic cancer. The other specialisms involved, such as anaesthesiology and interventional radiology, also have at least two specialists with proven specific expertise in the care of patients having pancreatic surgery.
- There is access to an intensive care unit with staff who are skilled in the care of patients following major gastrointestinal and oncological procedures.
- At least the following specialists must be represented in the weekly multidisciplinary meeting: surgeon, gastroenterologist, medical oncologist, radiologist, radiation oncologist, pathologist, case manager and/or oncology nurse and/or a nurse specialist in oncology and other nurses if necessary. There must be an option to consult a representative from the reference centre in this weekly meeting.
- Each centre must perform at least 20 pancreaticoduodenectomies per year.
- Specific, rare procedures (such as those involving hilus tumours) are concentrated within several centres in the Netherlands and patients are referred to these centres.
- The facility takes part in the Dutch Pancreatic Cancer Audit (DPCA).

Liver and intrahepatic bile duct tumours

In order to perform liver and bile duct surgery, a healthcare facility must meet all the conditions stated for the treatment of colorectal cancers and also have or meet the following requirements:

- There is a liver surgery team consisting of at least two surgeons with proven specific expertise in liver surgery, at least two registered gastroenterologists with experience in intervention endoscopies (ERCP with stent insertion), at least one gastroenterologist with specific expertise in the field of hepatology, two interventional radiologists, one pathologist, one radiation oncologist, one medical oncologist and one nuclear medicine specialist, all with proven specific expertise in liver and bile duct tumours.
- Perioperative ultrasounds of the liver can be performed.
- Intervention ERCPs can be performed in the healthcare facility.
- There is access to nonsurgical focal therapy for the liver, such as - for example - radio-frequency ablation (RFA), high intensity focused ultrasound (HIFU) and/or stereotactic body radiation therapy (SBRT).
- With permission from the healthcare facility where the operation is performed, the medical treatment can take place in the referring healthcare facility. Imaging studies to evaluate the tumour are discussed in the multidisciplinary meeting of the healthcare facility where the operation will take place, establishing the treatment plan. A service level agreement must be in place between the healthcare facilities involved.
- At least the following specialists must be represented in the weekly multidisciplinary meeting: surgeon, gastroenterologist, medical oncologist, radiologist, nuclear medicine specialist, radiation-oncologist, pathologist, case manager and/or oncology nurse and/or a nurse specialist in oncology and other nurses if necessary. There must be an option to consult a representative from the reference centre in this weekly meeting.
- There is access to an intensive care unit with staff who are skilled in the care of patients following major gastrointestinal and oncological procedures.
- Each centre must perform at least 20 liver/bile duct resections per year.
- Specific, rare procedures (including resections of proximal bile duct tumours) are concentrated within several centres in the Netherlands and patients are referred to these centres.
- The facility takes part in the Dutch Hepato Biliary Audit (DHBA).

Colorectal cancer

For the treatment of colorectal cancer, a healthcare facility must have or meet the following requirements:

- There is an Endoscopy unit with adequate facilities (according to the requirements by the NVMDL), with a recovery area for monitoring after a diagnostic or therapeutic procedure.
- There are at least two registered gastroenterologists (in exceptional cases it is currently still permitted to have one gastroenterologist and one doctor of internal medicine with a valid certificate for performing endoscopies), two surgeons, two radiologists, one pathologist, one radiation oncologist, one medical oncologist, all with proven specific expertise in colorectal cancer.
- Multislice CT and MRI scanners are available, with set time frames in which the CT or MRI can be performed and reports are provided by a radiologist with the required focus area.
- An interventional radiologist is on-call 24 hours a day, 7 days a week and is skilled in performing interventions on patients with complications as a result of major gastrointestinal and oncological procedures.
- There is access to a Department of Nuclear Medicine that has a PET/CT scanning facility.
- There are written agreements in place about genetic counselling and testing, including rapid diagnostics, and these agreements at least state the turnaround times.
- Neo-adjuvant (chemo)radiotherapy is available and there is an established care pathway.
- There is a stoma outpatient clinic with a stoma nurse.
- At least the following specialists must be represented in the weekly multidisciplinary meeting: surgeon, gastroenterologist, medical oncologist, radiologist, radiation oncologist, pathologist, case manager and/or oncology nurse and/or a nurse specialist in oncology and other nurses if necessary. There must be an option to consult a representative from the reference centre in this weekly meeting.
- There are agreements in place about administering intraoperative radiotherapy if indicated; the indication for this will be set prior to surgery in a multidisciplinary meeting.
- Locally advanced or recurrent rectal cancers are treated in centres with proven expertise in the treatment of these cancers (i.e. experience with exenterations, multimodality therapy and intraoperative radiotherapy if applicable).
- The facility takes part in the Dutch Surgical Colorectal Audit (DSCA).
- Each centre must perform at least 50 colorectal resections (for benign and malignant conditions) per year.
- If rectum resections (for benign and malignant conditions) are performed in a healthcare facility, then the facility must perform at least 20 resections per year.

Peritoneal metastasis

In order to perform Hyperthermic IntraPeritoneal Chemotherapy (HIPEC) treatments, a healthcare facility must meet all the conditions stated for the treatment of colorectal cancers and also have or meet the following requirements:

- HIPEC treatment is performed by at least two surgeons with proven specific expertise in HIPEC treatments. The other specialisms involved, such as anaesthesiology (and perfusionist), also have at least two specialists with proven specific expertise in HIPEC treatments.
- There is access to an intensive care unit with staff who are skilled in the care of patients following HIPEC and other major gastrointestinal and oncological procedures.
- The facility must be represented in the national HIPEC working group.
- Each centre must perform at least 20 HIPEC treatments per year.
- A quality registration takes place.
- The start of HIPEC treatments in new centres takes place under the supervision of an existing centre with proven expertise in HIPEC treatments, as described in this document. The new centre must meet all the requirements described above in this document for starting new therapies.

GYNAECOLOGICAL TUMOURS

In gynaecologic oncology, care is provided in so-called gynaecologic oncology centres, which can be described as follows:

There are specific requirements that a gynaecologic oncology centre must meet, as described in the memorandum "Stijgbeugel", version 1.0 2012, including:

- There are at least 2.4 fte (full-time equivalent) gynaecologic oncologists per centre.
- At least 200 new patients with a gynaecological malignancy in one centre (including number of cases per gynaecological oncology centre). Cases specifically refers to the cases of disease and not the individual patient. Therefore, it is possible that one patient will be counted twice due to two separate oncological events, such as a primary tumour with treatment and a recurrence.
- If an oncology centre consists of two or more institutes, then these are assessed as separate healthcare facilities as far as the number of surgical procedures is concerned. If a centre consists of two or more healthcare facilities, then the radical surgery per tumour type should be concentrated in one location if the volume criteria cannot be met otherwise.
- The gynaecologic oncology centre acts in a consulting centre for the region in question. This is evidenced by the continuous option for consultation and structural tumour group meetings.
- The facility takes part in the quality registration for gynaecologic oncology, the Dutch Gynaecological Oncology Audit (DGOA).

Cervical cancer

The diagnosis, treatment and follow-up of cervical cancer is preferably performed exclusively in one of the recognised gynaecologic oncology centres (except for stage IA1 cervical cancer, after consultation with a centre). These reference centres must have or meet the following requirements:

- Regional care pathways should preferably be developed.
- At least the following specialists must be represented in the weekly multidisciplinary meeting: gynaecologic oncologist, medical oncologist, radiologist, radiation oncologist, pathologist, case manager and/or oncology nurse and/or a nurse specialist in oncology and other nurses if necessary.
- A healthcare facility other than the gynaecological oncology centre employs at least two gynaecologists with the focus area gynaecologic oncology (or gynaecologic oncologists) who can ensure continuity of care.
- All surgical treatments of stage IA2 and higher take place in the gynaecologic oncology centre.
- All treatments of recurrent cervical cancer are coordinated by the gynaecological oncology centre.
- To apply brachytherapy, the centre must treat at least 10 patients per year and perform 20 procedures per year, on average over a period of 3 years. Please also refer to the standard as described in the NVRO memorandum.
- At least 20 (radical) surgical procedures for cervical cancer must be performed per healthcare facility per year, calculated over a period of 3 years.
- The facility takes part in the quality registration for gynaecologic oncology, the Dutch Gynaecological Oncology Audit (DGOA).

Endometrial cancer

For the treatment of endometrial cancer, a healthcare facility must have or meet the following requirements:

- There are at least two gynaecologists with the focus area gynaecologic oncology (or gynaecological oncologists), who can coordinate or give the care for patients with endometrial cancer within the healthcare facility.
- At least the following specialists must be represented in the multidisciplinary meeting - that preferably takes place on a weekly basis and otherwise at least fortnightly - in which the high-risk

patients are discussed prospectively: gynaecologist with focus area gynaecologic oncology, medical oncologist, radiologist, radiation oncologist, pathologist, case manager. There must be an option to include a consultation with a gynaecological oncologist from the gynaecological oncology centre in this meeting.

- The healthcare facility forms an integral part of the regional partnership in which the care for patients with (suspected) endometrial cancer is organised at a regional level and each region has a gynaecological oncology centre with smaller and larger healthcare facilities referring to this centre.
- Stage I and clinically non-manifest stage II: diagnosis, treatment and follow-up take place in centre and non-centre healthcare facility. Diagnosis of a possible recurrence, chemotherapeutic and hormonal treatment of the recurrence take place in consultation with the gynaecologic oncology centre.
- Treatment with curative intent of clinically manifest stage II, stage III and IV and surgical treatment of a recurrence takes place in the gynaecologic oncology centre.
- Non-curative treatment of stage III and IV and radiotherapeutic treatment of a recurrence takes place in consultation with the gynaecological oncology centre.
- Surgical staging of the clear-cell or papillary serous endometrial cancer takes place in a healthcare facility where staging of ovarian cancer is also performed. Surgical staging performed on grade 3 endometrial cancer is performed in a healthcare facility where staging of ovarian cancer is also performed.
- The healthcare facility where patients with endometrial cancer are treated has access to radiotherapy.
- The facility takes part in the quality registration for gynaecologic oncology, the Dutch Gynaecological Oncology Audit (DGOA).

Ovarian cancer (including tubal and peritoneal cancer)

For the treatment of ovarian cancer, a healthcare facility must have or meet the following requirements:

- The healthcare facility forms an integral part of the regional partnership.
- At least the following specialists must be represented in the weekly multidisciplinary meeting in which patients are discussed prospectively: gynaecologic oncologist, optionally a gynaecologist with focus area gynaecologic oncology, medical oncologist, radiologist, radiation oncologist, pathologist, case manager.
- A healthcare facility other than the gynaecologic oncology centre employs at least two gynaecologists with the focus area gynaecologic oncology (or gynaecological oncologists), who can ensure continuity of care.
- The gynaecological oncologist participates in every staging or debulking operation.
- There is a gastrointestinal surgeon present/available.
- A healthcare facility that performs surgery on patients with ovarian cancer performs at least 20 debulking surgeries per year, on average over a period of 3 years.
- Patients with strongly suspected ovarian cancer and patients with ovarian cancer that require staging surgery should undergo surgery in the healthcare facilities that also performs at least 20 debulking surgeries per year, on average over a period of 3 years. For these two patient groups no additional volume criteria apply.
- Surgical treatment of recurrent ovarian cancer takes place in the gynaecological oncology centre.
- Treatment with a PARP inhibitor offered to carriers of a germline or somatic BRCA1 or BRCA2 gene mutation with platinum-sensitive recurrent ovarian, tubal or peritoneal cancer takes place in a healthcare facility with medical oncologists who have proven expertise and experience in treatment using PARP inhibitors.
- Section can be frozen at the facility.
- There is access to an intensive care unit with staff who are skilled in the care of patients following major gynaecological oncological procedures.
- The facility takes part in the quality registration for gynaecologic oncology, the Dutch Gynaecological Oncology Audit (DGOA).

Vulvar cancer

The primary treatment of vulvar cancer (except for stage IA vulvar cancer) is performed exclusively in one of the certified gynaecological oncology centres. These reference centres must have or meet the following requirements:

- At least the following specialists must be represented in the weekly multidisciplinary meeting: gynaecologic oncologist, medical oncologist, radiologist, radiation oncologist, pathologist, case manager and/or oncology nurse and/or a nurse specialist in oncology and other nurses if necessary. For the non-centre healthcare facilities, there must be an option to consult a gynaecological oncologist from the gynaecological oncology centre in this weekly meeting.
- A healthcare facility other than the gynaecologic oncology centre employs at least two gynaecologists with the focus area gynaecologic oncology (or gynaecological oncologists) who can ensure continuity of care. The following procedures can take place here: diagnosis of primary tumours and recurrences, follow-up after primary treatment, surgical treatment of stage IA vulvar cancer.
- Surgical and non-surgical treatment of macroinvasive vulvar cancer and recurrent vulvar cancer takes place in a gynaecologic oncology centre.
- Sentinel node procedures and follow-up in the first two years after a sentinel node procedure take place in a gynaecological oncology centre.
- At least 20 (radical) surgical procedures for vulvar cancer must be performed per healthcare facility per year, calculated over a period of 3 years.
- The facility takes part in the quality registration for gynaecologic oncology, the Dutch Gynaecological Oncology Audit (DGOA).

BRAIN TUMOURS

Gliomas

A healthcare facility that treats patients with gliomas must meet the quality criteria as set out in the document “Kwaliteitscriteria voor Neuro-Oncologie” (Quality Criteria for Neuro-Oncology) (LWNO, 2014, can be consulted via www.werkgroepeniknl.nl). The healthcare facility must also have or meet the following requirements:

- Diagnosis by means of MRI (according to the criteria of the neuro-radiology section NVvR) is performed with priority (for suspected brain tumours), reported by a radiologist with the required focus area and preferably discussed with the patient within 5 working days.
- A nurse with neuro-oncology expertise is available and this nurse has his/her own consultation hours.
- At least the following specialists with a focus area in neuro-oncology must be represented in the weekly multidisciplinary meeting: neurosurgeon, neurologist, radiation oncologist, medical oncologist, radiologist, pathologist, neuro-oncology nurse.
- There is access to Departments of Radiology and Pathology, where additional diagnostics can be performed and results reported by specialists with the relevant focus area (including molecular genetic diagnostics).
- The patient is discussed again upon progression/recurrence.
- The healthcare facility participates actively in (pre)clinical studies or patients are referred to other centres to participate in studies.
- Structural screening for physical, cognitive and behavioural limitations is performed during the treatment and follow-up. Patients and their relatives are also screened to determine the need for psychosocial care.
- At least 50 new patients with a glioma are discussed in the multidisciplinary meeting per year.
- The participating neurosurgical centre performs at least 50 surgeries related to brain tumours per year.
- Once implemented, the centre will participate in the national patient registration.

HEAD AND NECK TUMOURS

Malignant tumours originating from the following sites fall under the definition “head and neck oncology” (index tumours):

- Lip and oral cavity (ICD-10 code: C00, C02-C06).
- Oropharynx (ICD-10 code: C01, C05.1,2, C09, C10 and C14.2).
- Nasopharynx (ICD-10 code: C11).
- Hypopharynx (ICD-10 code: C12-C13).
- Larynx (ICD-10 code: C10.1, C32).
- Nasal cavity and paranasal sinuses (ICD-10 code: C30 and C31).
- Salivary glands (ICD-10 code: C06.9, C07 and C08).
- Lymph node metastases of squamous cell carcinoma of unknown origin (ICD-10 code: C80.9).
- Cancers of the auditory canal/middle ear (temporal bone) (ICD-10 code: C44.2).

In addition to the abovementioned index tumours, the following tumours can also be considered as “head and neck oncology” and can therefore fall within the definitions and frameworks with regard to organisation:

- Large basal cell carcinomas, (lentigo maligna) melanomas, stage II and III squamous cell carcinomas or metastases of skin tumours in/of the head and neck region.
- Head and neck tumours with involvement of the skull base, for which multidisciplinary treatment involving a neurosurgeon might be indicated.
- Thyroid cancers with involvement of the larynx (ICD-10 code: C73).
- Cervical oesophageal and tracheal tumours with/without involvement of the larynx (ICD-10 code: C15.0, C34.0).
- Malignant orbital tumours, non-ocular tumours, such as adnexa tumours including the lacrimal glands (ICD-10 code: C69.5-9)
- Other rare malignant conditions in the head and neck region, such as sarcomas, Merkel cell tumours and tumours in the head and neck region in children.

Definitions

Head and Neck Oncology Centre (HNOC): Healthcare facilities in the Netherlands where head and neck cancer care is offered, which - in the absence of better quality parameters - meets the criteria listed in tables 1 and 2, is recognised - after inspection - by the Netherlands Working Group on Head and Neck Tumours (NWHHT) and participates in a quality registration set up by the NWHHT.

Preferred Partner HNO (PP-HNO): Healthcare facilities in the Netherlands where head and neck cancer care is offered, which meets the criteria listed in tables 1 and 2, is recognised - after inspection - by the Netherlands Working Group on Head and Neck Tumours (NWHHT), collaborates with a HNOC and participates in a quality registration set up by the NWHHT.

Preferred Partner Radiotherapy (PPR): A Department of Radiotherapy that has a covenant with a HNOC. The entire medical policy should be communicated with the HNOC. The policy should be recorded in writing. A PPR can only have a covenant with one HNOC, in which at least the following requirements for the PPR have been included (tables 1 and 2). In rare cases (for example palliation), deviations are permitted if substantiated.

Multidisciplinary Meeting (MDM): A meeting to be held at least once a week at which all healthcare providers involved in diagnosis and patient treatment are present and at which a diagnostic and treatment advice is given to the main treating physician.

Frameworks

1. All patients with the previously mentioned index ICD-10 codes must be assessed by a multidisciplinary team before treatment and must be discussed in the MDM of a HNOC. The treatment plan must be recorded in writing and should be added to the medical file.
2. The treatment, or a part of the treatment, can only take place in a facility outside the HNOC if the MDM agrees to this and the specialisms from the facility in question that are involved in the

- treatment have taken part in the MDM, or following consultation with the proposed treating physicians. A HNOC is permitted to collaborate with one PP-HNO and one PPR. Deviations from this are permitted in exceptional cases, provided that such cases are motivated.
3. All recommendations from the multidisciplinary team in the HNCO should be followed as formulated in the treatment plan. The main treating physician can deviate from these recommendations if substantiated and discussed in the MDM of the HNOC and documented in the treatment plan.
 4. When referring to a facility outside the HNOC for a (follow-up) treatment, the turnaround times and proposed intervals (e.g. between surgery and post-operative radiotherapy) must be complied (Appendix 1). If a part of the treatment takes place at a different location, then the "turnaround time" applies from the day of arrival at the first location.

Minimum requirements:

Tables 1 and 2 list the minimum standards for the HNOC, PP-HNO or PPR. Only patients who receive a part of their treatment (surgery, radiotherapy and/or chemotherapy/targeted therapy) in the centre in question may be counted in the patient numbers. In addition, only the diagnoses that correspond to the index ICD-10 codes listed above are included.

Minimum patient volumes have been set for a number of complex head and neck cancer treatments. Failure to achieve this number means that patients should be referred to a different centre. In the case of a PP-HNO, the patients should be referred to the HNOC. In the case of a HNOC, the patients should be referred to another HNOC (table 2).

A PPR must meet the following requirements:

- At least 2 radiation oncologists with a focus area of head and neck oncology, one of the radiation oncologists must have at least 4 years of proven experience in this area.
- Option to perform diagnostic tests in accordance with the guidelines.
- Infrastructure/equipment: IMRT, 3D volumetric on-board imaging. Diagnostic imaging should preferably be performed in the radiation mask.
- Daily availability of a dental hygienist, dietician, head and neck oncology case manager and contact person for psychosocial support (social work).
- Volume criteria for new radiation patients (excluding palliative radiation): 50 new patients per centre per year, on average over the past three years, with at least 20 patients per radiation oncologist.
- A PPR is limited to the following patient categories for radiotherapy with curative intent: oral cavity, oropharynx, larynx, hypopharynx, salivary glands. A PPR does not perform treatments involving chemoradiotherapy or radiotherapy in combination with targeted therapy.
- A PPR follows the same guidelines as the HNOC. The radiation treatment plans by the PPR are also assessed by the radiation oncologists from the HNOC.

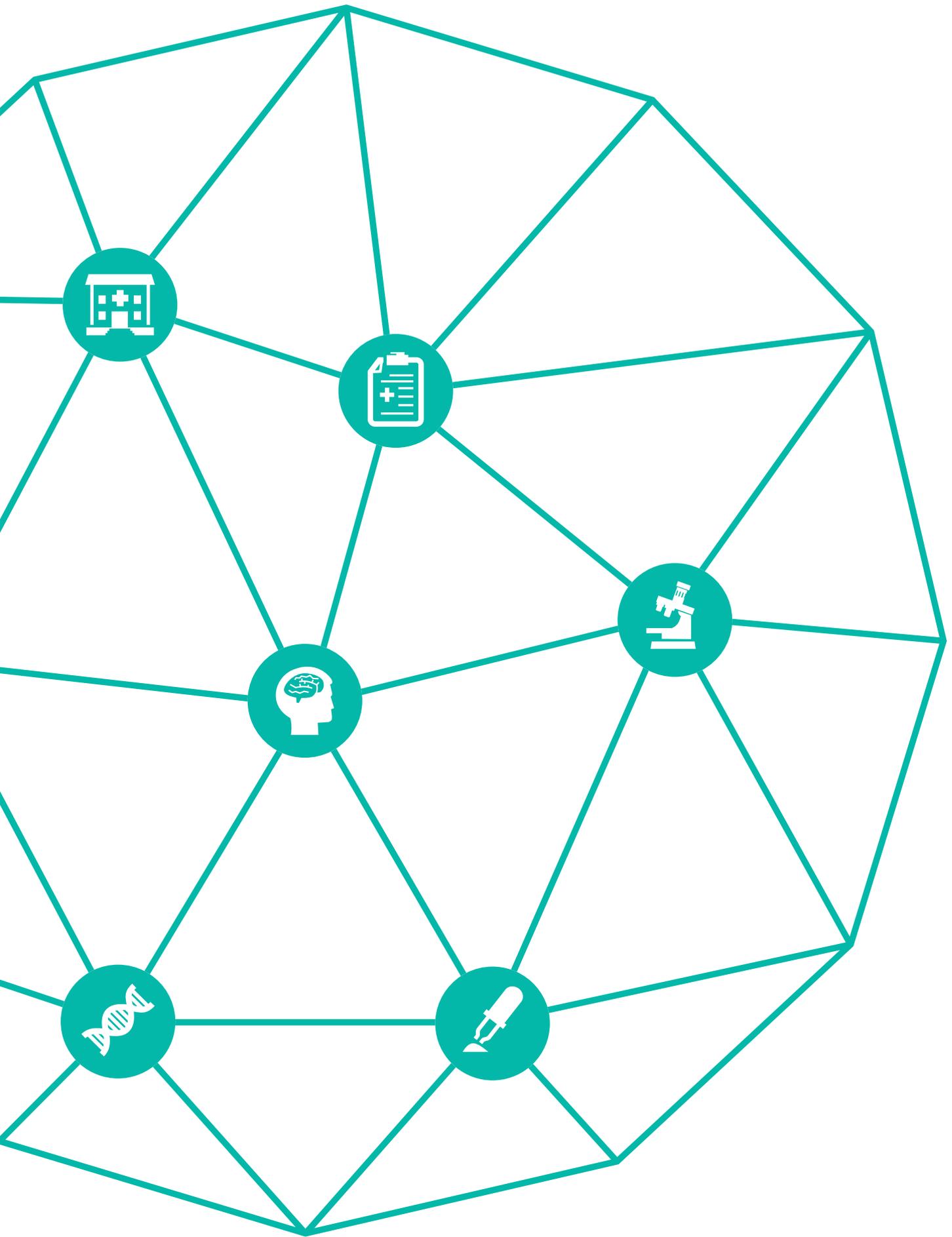


TABLE 1: MINIMUM STAFF RESOURCES

	HHOC	Preferred Partner HHO	Preferred Partner Radiotherapy
Full-time staffing			
Minimum number of head and neck surgeons** (minimum of 1.0 fte per specialism ENT and OMFS), with 1 present on working days	3	2	
Head and neck radiation oncologist	2	2	2
Head and neck medical oncologist	1 (1)	1 (1)	
Dermatologist	1	1	
Head and neck radiologist	1	1	
Reconstructive/plastic surgeon*	2	2	
Pathologist	1	1	
Nuclear medicine specialist	1	1	
Oncology nurse/Case manager	1	1	
Dietician	1	1	1
Physiotherapist	1	1	
Dental hygienist	1	1	1
Dentist and maxillofacial prosthetist**	1	1	
Speech therapist	1	1	1
Psychosocial care	1	1	1

*This part to be performed by the head and neck surgeons, provided they are trained in microsurgery.

**Listed in the (oncology) registry of the Dutch professional organisation.

TABLE 2: Number of patients and treatments per year for index tumours that must be performed in one centre in order to be allowed to perform this treatment

	HHOC**	Preferred Partner HHO**	Preferred Partner Radiotherapy
Number of newly treated patients/year	200	80	50
Chemoradiotherapy (CRT) / targeted therapy-RT	20	20	N/A
Extensive ablative resections + (microsurgical) reconstructions	20	20	N/A
Malignant tumour surgery with involvement of the skull base	10	10	N/A
Percentage turnaround time from arrival at the centre – start of treatment <30 days	80%	80%	N/A
Participation in the Quality Audit for head and neck tumours (DHNA)	Ja	Ja	N/A

** : A healthcare facility can decide to concentrate certain types of care in one location.

INDICATOR TURNAROUND TIMES

- Relation to quality: Tumours in the head and neck region are characterised by their relatively rapid growth. This means that a (too) long interval between the date of referral to a head and neck oncology centre and the start of the primary treatment (surgery, radiotherapy and/or chemotherapy) can result in significant tumour growth and result in a higher tumour stage with reduction in the chances of a cure, changes in therapeutic options and even a change from curative to palliative treatment.
- Definition: Turnaround time = number of calendar days from first consultation to start date of primary treatment (surgery, radiotherapy and/or chemotherapy).
- Standard: 80% of the patients start the primary treatment in a head and neck oncology centre within 30 calendar days after first consultation. Waiting time = turnaround time – 30 calendar days.
- This concerns: All patients with a primary malignancy in the head and neck region of the index sites, who are seen for the first time.

LUNG CANCER

For the treatment of lung cancer, a healthcare facility must have or meet the following requirements:

- There are at least two pulmonologists, two surgeons, one radiation oncologist, two radiologists/nuclear medicine specialists and one pathologist, all with proven specific expertise in lung cancer.
- At least the following specialists must be represented in the weekly multidisciplinary meeting: pulmonologist, (lung and/or thoracic) surgeon, radiation oncologist, radiologist, pathologist, nuclear medicine specialist, case manager and/or oncology nurse and/or a nurse specialist in oncology and other nurses if necessary. There must be an option to consult a representative from the reference centre in this weekly meeting.
- The healthcare facility has an adequately equipped endoscopy unit, where bronchoscopy and endobrachial ultrasound can be performed. At least 100 endoscopies are performed per year, on average over 3 years.
- There is access to endo-oesophageal ultrasound.
- There is access to urgent radiodiagnostics, with ultrasound, CT scan and angiography.
- There is access to a Department of Nuclear Medicine that has a SPECT-CT and PET/CT facility.
- There is access to (minimally invasive) diagnostics of the mediastinum.
- The turnaround time for diagnostics involving expansion to the mediastinum has a maximum of five weeks.
- There is an option to perform perioperative analysis of frozen sections.
- There is access to molecular diagnostics in a standardised way via the Department of Pathology, with at least mutations, translocations and immunohistochemistry that are relevant to treatment being determined.
- Neo-adjuvant chemotherapy, chemoradiotherapy and stereotactic radiotherapy are available, with a record of the "service level".
- At least 50 new patients with lung cancer are treated per hospital per year.
- If lung resections are performed in a healthcare facility, then the facility must perform at least 20 resections per year, defined as a segmentectomy, lobectomy and pneumonectomy. The resections are performed by a certified lung surgeon or thoracic surgeon.
- In a healthcare facility where lung resections are performed, an urgent thoracotomy can be performed at all times.
- In a healthcare facility where lung resections are performed, there is access to an intensive care unit with staff who are skilled in the care of patients following lung surgery.
- Healthcare facilities that treat lung cancer, perform lung resections and/or offer treatment with radiotherapy participate in the respective national registrations: the Dutch Lung Cancer Audit (DLCA-L), the Dutch Lung Surgery Audit (DLCA-S) and the Dutch Lung Radiotherapy Audit (DLCA-R).
- A healthcare facility that offers immunotherapy must meet the NVALT quality requirements and must participate in the NVALT "Expensive Medicines" registration.

- A healthcare facility that offers “targeted” therapy for rarer diseases (prevalence <5% of adenocarcinomas or squamous cell cancers) must have proven expertise.

BREAST CANCER

For the treatment of breast cancer, a healthcare facility must have or meet the following requirements:

- There is a breast care team, consisting of at least one breast care nurse and/or a nurse specialist in oncology, two surgical oncologists, one plastic surgeon, two radiologists, one pathologist, one radiation oncologist, one medical oncologist and one nuclear medicine specialist, all with proven expertise in breast cancer (in accordance with the NABON memorandum, April 2008, which can be consulted via www.oncoline.nl).
- There is a recognisable breast outpatient clinic.
- A breast MRI scanner is available, with set time frames in which the MRI scan can be performed and reports are provided by a radiologist with the required focus area.
- Stereotactic biopsies are available, with set time frames in which the biopsy can be performed and reports are provided by a pathologist.
- There is access to a Department of Nuclear Medicine where sentinel node procedures can be performed, that has access to a PET/CT scanner and can provide therapy with bone-homing radiopharmaceuticals, with a record of the “service level”.
- There is the option to have a preoperative consultation with a plastic surgeon and radiation oncologist.
- At least the following specialists must be represented in the weekly multidisciplinary meeting: surgical oncologist, medical oncologist, radiologist, radiation oncologist, pathologist, case manager, breast care nurse and/or oncology nurse and/or a nurse specialist in oncology. There must be an option to consult a representative from the reference centre and a plastic surgeon in this weekly meeting.
- There is an operating theatre with adequate facilities, including a gamma probe.
- There is an operating theatre suitable for prosthetic implant surgery.
- There is a care pathway in place for neo-adjuvant chemotherapy.
- There are written agreements in place about genetic counselling and testing, including rapid diagnostics, and these agreements at least state the turnaround times.
- In the case of (neo-)adjuvant treatments, there are agreements in place regarding timely referral for fertility preservation.
- Oncoplastic surgery is performed, i.e. skin-sparing mastectomies with immediate reconstruction or oncoplastic sparing surgeries.
- The facility takes part in the Dutch Breast Cancer Audit/NABON Breast Cancer Audit.
- Each centre must perform at least 50 breast cancer operations per year.

EYE TUMOURS

Retinoblastoma

- Considering the rare nature of retinoblastoma (cancer of the retina in children) and the official allocation of a national expertise centre for rare conditions / reference centre in the Netherlands, these patients should be referred to this centre. The treatment or treatment advice is provided by this centre.

Uveal melanoma

- A care pathway has been formulated for the care of patients with uveal melanoma.
- All patients with uveal melanoma are discussed in a multidisciplinary meeting prior to treatment. This multidisciplinary meeting takes place at least every two weeks and at least two ophthalmol-

ogists and a radiation oncologist with proven expertise in ocular oncology are present during this meeting.

- The centres must have written information material that describes all the treatment options.
- Dedicated nursing care is available.
- Treatment results are registered and evaluated.
- There is access to a Department of Pathology with proven specific expertise in the field of pathology of uveal melanoma.
- Patients who are advised in the multidisciplinary meeting to undergo enucleation can have the surgery performed elsewhere, but the tissue must be assessed by the ocular oncology centre.
- For patients with metastatic disease, there is weekly access to a multidisciplinary meeting with a medical oncologist and a surgeon.

GENITOURINARY TUMOURS

Bladder cancer

For the treatment of bladder cancer, a healthcare facility must have or meet the following requirements:

- Prior to the treatment, detailed information is provided - both verbally and in writing -- about the treatment and the various forms of urine deviation.
- The centre has experience in the various techniques of urine deviation and lymph node dissection.
- As an exception to the turnaround times listed in Chapter 2, the turnaround times between the first visit to the outpatient clinic and performing a cystectomy for muscle-invasive bladder cancer is 12 weeks, unless neo-adjuvant chemotherapy will be given.
- There is access to an intensive care unit with staff who are skilled in the care of patients following major urological cancer procedures.
- There is a stoma outpatient clinic with a stoma nurse.
- The low grade bladder tumours are exempt from discussion in the multidisciplinary meeting.
- At least the following specialists must be represented in the weekly multidisciplinary meeting: urologist, medical oncologist, radiologist, radiation oncologist, pathologist, case manager and/or oncology nurse and/or a nurse specialist in oncology and other nurses if necessary. There must be an option to consult a representative from the reference centre in this weekly meeting.
- At least 20 new patients per year undergo a cystectomy, starting from 2015.
- The centre participates in the Dutch Association of Urology's national patient registration for invasive bladder cancer.
- The centre employs at least one medical oncologist with proven specific expertise in bladder cancer and the systemic treatment thereof. The urologist and the medical oncologist decide together whether or not to start systemic therapy.

Renal cell carcinoma

For the treatment of renal cell carcinoma, a healthcare facility must have or meet the following requirements:

- At least the following specialists must be represented in the weekly multidisciplinary meeting: urologist, medical oncologist, radiologist, radiation oncologist, pathologist, case manager and/or oncology nurse and/or a nurse specialist in oncology and other nurses if necessary. There must be an option to consult a representative from the reference centre in this weekly meeting.
- The centre employs at least one medical oncologist with proven specific expertise in renal cell carcinoma and the systemic treatment thereof, in particular immunotherapy and targeted therapy.
- The option to perform true-cut biopsies must exist.
- In the case of a (functional) solitary kidney with renal cell carcinoma, any surgical procedure should take place in a centre with expertise in nephron-sparing surgery in a solitary kidney

- Patients with a supradiaphragmatic (tumour) thrombus should undergo their surgical procedure in a centre with expertise in the field of cardiothoracic surgery and with intensive care facilities for such procedures.
- Healthcare facilities that offer surgical treatment of renal cell carcinoma must perform at least 10 oncological procedures of the kidney per year and must diagnose/treat at least 20 new patients with a renal cell carcinoma per year.
- Systemic therapy is decided on following consultation between a medical oncologist and a urologist and is performed by a medical oncologist.
- Systemic therapy for renal cell carcinoma can only take place if the healthcare facility in question provides systemic treatment to at least 10 patients per year with this condition, unless decided otherwise for a specific patient in consultation with the reference centre.
- The centre participates in the "treatment of kidney cancer" registration of the NVU.

Penile cancer

For the treatment of penile cancer >T1aG1, a healthcare facility must have or meet the following requirements:

- A structured multidisciplinary meeting takes place prior to the treatment of penile cancer with possible metastasis to the lymph nodes or distant locations.
- At least the following specialists must be represented in the weekly multidisciplinary meeting: urologist, medical oncologist, radiologist, nuclear medicine specialist, radiation oncologist, pathologist, case manager and/or oncology nurse and/or a nurse specialist in oncology and other nurses if necessary. There must be an option to consult a representative from the reference centre in this weekly meeting.
- In order to promote the process of care concentration for low-volume surgery, the minimum number of treatments of patients with high-grade penile cancer (>T1aG1) has been set to at least 10 new patients per hospital per year, on average over three years.
- In the case of suspected or diagnosed penile cancer with a high-stage tumour (>T1aG1), the patient should be referred to a centre with the following experience in the field of diagnosis and treatment of penile cancer:
 - diagnose and determine the extent of the penile cancer (using techniques such as Dynamic Sentinel Node Biopsy (DSNB) and SPECT-CT);
 - ultrasound-guided cytological biopsies from the groin (radiologist/urologist) and the expertise for the evaluation thereof (pathologist);
 - the presence of a structured process to detect indications for referral to a medical oncologist or radiation oncologist, or consultation with an external consultant (national or international);
 - the treatment of various stages of penile cancer, including chemotherapy, radiotherapy, deep and superficial inguinal lymph node dissection and pelvic lymph node dissection.
- The urologist is the care coordinator during the diagnostic phase and consults the departments of radiology and nuclear medicine and the laboratories for pathology and clinical chemistry.
- In the case of metastatic disease, the urologist ensures that the patient is discussed in a multidisciplinary meeting and referred to the doctor of internal medicine/medical oncologist and radiation oncologist if decided on in the multidisciplinary meeting.
- No more than six weeks should pass between setting an indication for and performing a treatment.

Prostate cancer

For the treatment of prostate cancer, a healthcare facility must have or meet the following requirements:

- A structured multidisciplinary meeting about the proposed treatment takes place prior to treatment
- At least the following specialists must be represented in the weekly multidisciplinary meeting: urologist, medical oncologist, radiologist, nuclear medicine specialist, radiation oncologist,

pathologist, case manager and/or oncology nurse and/or a nurse specialist in oncology and other nurses if necessary. There must be an option to consult a representative from the reference centre in this weekly meeting.

- In the case of castration-resistant metastatic prostate cancer (i.e. if the tumour no longer responds to LHRH-blocking medication and antiandrogens), the further course of treatment is discussed in a multidisciplinary meeting.
- In the case of combined hormonal and radiotherapy, it is determined which specialist will be responsible for the hormonal therapy.
- There is access to a Department of Nuclear Medicine with a PET/CT scanner and that can provide therapy with bone-homing radiopharmaceuticals, with a record of the "service level".
- The centre employs at least one radiologist with proven specific expertise in prostate cancer.
- The centre employs at least one medical oncologist with proven specific expertise in the systemic treatment of patients with prostate cancer.
- If a healthcare facility performs radical prostatectomies, then the centre should perform at least 20 of these procedures per year.
- The centre participates in the prostatectomy registration of the NVU.

Testicular cancer

For the treatment of testicular cancer, a healthcare facility must have or meet the following requirements:

- At least the following specialists must be represented in the weekly multidisciplinary meeting: urologist, medical oncologist, radiologist, radiation oncologist, pathologist, representative from the reference centre, case manager and/or oncology nurse and/or a nurse specialist in oncology and other nurses if necessary.
- The centre employs at least one pathologist with proven specific expertise in testicular cancer.
- The centre employs at least one medical oncologist with proven specific expertise in testicular cancer and the systemic treatment thereof.
- Inguinal orchiectomy must be performed as soon as possible (preferably within 72 hours) after the initial presentation of a patient with testicular cancer, unless there is an indication for the immediate start of chemotherapy.
- A structured multidisciplinary meeting, in which all testicular cancer patients are discussed, including the results from pathology and imaging studies, takes place to determine the further course of action after the orchiectomy. There must be an option to consult a representative from the reference centre in this meeting.
- In case of a patient with a poor prognosis (poor risk), consultation with the reference centre should take place as soon as the staging as poor risk is known.
- Patients must be offered semen preservation prior to the start of systemic treatment.
- A healthcare facility that treats patients with stage I testicular cancer should see at least 5 new patients with this stage each year for follow-up.
- If a healthcare facility treats patients with staging higher than stage I, but with "good risk", then the facility must treat at least 10 patients per year.
- All patients with intermediate or poor prognosis metastatic disease are referred to and treated in a reference centre.
- A healthcare facility with proven specific expertise to perform retroperitoneal lymph node dissections must perform at least 5 of these procedures per year.

Colophon

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