# Comprehensive Cancer Care Networks (CCCN´s)

## Supporting Document

Developed in the context of iPAAC from the working group of Work Package 10

# Supporting Document

**for the Set of Standards for Comprehensive Cancer Care Networks (CCCN) and the corresponding Set of Standards for Colorectal and Pancreatic Cancer Care Networks**
as of 27.08.2021

This document describes the background and future development possibilities (chapters 1 and 2) for the SoS for Comprehensive Cancer Care Networks (CCCN) and the corresponding Set of Standards for Colorectal and Pancreatic Cancer Care Networks, which were developed and piloted in the context of the Joint Action "Innovative Partnership Action Against Cancer" (iPAAC). Chapters 3 and 4 summarise the contents of the Sos and explain how a CCCN can be implemented.

## 1. Background WP 10

The goal of Work Package 10 is to further develop practical instruments ensuring a standardised integrated and comprehensive oncological care in all European Member States that is tumour-specific and delivers all-encompassing high-quality care to all patients. These instruments should be used by National Cancer Control Plans (NCCPs) for the governance of oncological care.
Specific objectives are:

- Analysis of existing NCCPs in regard to whether the instruments which will be developed in the WP (methodology for quality indicators, patient pathways, patient reported outcomes and set up of comprehensive cancer care networks or CCCNs) are already described and if applicable implemented as governance tools for comprehensive cancer control in the MS (Task 10.1).
- Development of a methodology for creating and implementing patient pathways to be used in a CCCN (Task 10.2).
- Development of a methodology for deriving generic and tumour-specific quality indicators to monitor and improve structures, processes and results of a CCCN with special focus on tumour-specific quality of care QIs (Task 10.3).
- Analysis of existing models of PROM & PREM collection. Development of a framework for the implementation of PROMs & PREMs in routine care (Task 10.4).
- Development of generic and tumour-specific standards for the setup of CCCNs. This set will serve as the base for the implementation of a CCCN and can be amended with member state specific adaptations. The successful implementation of a CCCN will be peer-reviewed within the scope of the project. (Task 10.5).

## 2. Background Comprehensive Cancer Care Networks

The IPAAC WP 10 project builds on the definitions and research published in chapter 5 of the European Guide on Quality Improvement in Comprehensive Cancer Control[1] (referred to below as The CanCon Guide) which was the output of the CanCon Joint Action and develops them further. The CanCon Guide defined CCCNs as follows [1]:

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[1] Albreht T, Kiasuwa R, Va den Bulcke M. European Guide on Quality Improvement in Comprehensive Cancer Control. CanCon - Cancer Control Joint Action. National and University Library, Ljubljana, Slovenia, 2017.

- A CCCN consists of multiple units[a] belonging to different institutions dedicated to research, prevention, diagnosis, treatment, follow-up, supportive and palliative care and rehabilitation for the benefit of cancer patients and cancer survivors.
- These units interact and have a formal agreement to work together in a programmatic and structured way with common governance, in order to pursue their goals more effectively and efficiently through collective synergies.
- Within the CCCN the care of patients is the responsibility of interprofessional teams that are multidisciplinary and tumour specific. Each team or tumour management group (TMG) works together for the benefit of patients with that particular type of tumour.
- Within the CCCN all units work together and adopt uniform standards of care for cancer-specific pathways that are binding for the entire network.
- The CCCN promotes a uniform system of quality assurance, and a unified informatics system for optimal exchange of information.
- The objective of a CCCN is to provide comprehensive cancer care to all the people living in a certain geographic area, thus pursuing equality and the improvement of outcomes and quality.

[a] The word unit is used to designate any component of a CCCN, whether an entire pre-existing institution or a part of an institution. For example, a unit might be an entire cancer centre, an oncology department of a general hospital or a children's hospital, a mammography facility, a pathology laboratory carrying out mutation analysis or a hospice.

The key elements defining a CCCN are illustrated in Fig.1.
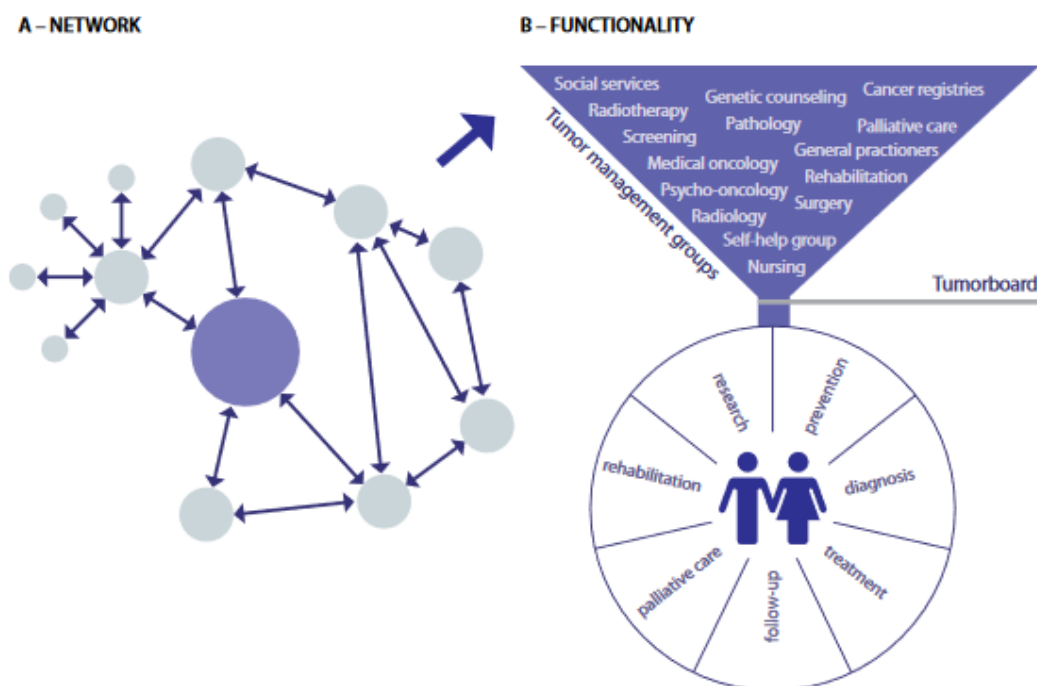


A – Network: The dots represent units/institutions (e.g. primary care, community hospitals, university hospitals, psychosocial counselling etc.) dedicated to research, prevention, diagnosis, treatment, follow-up, supportive and palliative care and rehabilitation, which work together as a CCCN in a structured way with a common governance
B – Functionality: The tumor management groups within the CCCN are inter-professional, multi-disciplinary and tumor-specific; with the objective to provide comprehensive cancer care to all the people living in a certain geographic area
Notes: The example of a network (A) has arrows to indicate the flow of patients, expertise, data and so on between networking institutions of different sizes, with different roles and at different levels in the health system. These work together in a structured way with a common governance. The dots indicate units/institutions (e.g. primary care,

community hospitals, university hospitals. psychosocial counselling) dedicated to research, prevention, diagnosis, treatment, follow-up, supportive and palliative care and rehabilitation. In tumour management groups (B), care-related activities are interprofessional, multidisciplinary and tumour specific. The objective is to provide comprehensive cancer care to the entire population within the catchment area.

The iPAAC proposed Set of Standards for CCCNs focus, especially in chapter 1, on the standards which are especially applicable to the structure and functioning of a CCCN, and in later chapters, on standards which are applicable to institutions throughout the network.

However, the Working Group acknowledges that there are structural questions and issues which have been left open for further research. These fall under two headings:

(1) Comprehensiveness including basic and translational research

As the focus of iPAAC WP 10 is on governance of high-quality care for cancer patients and the measurement of this quality, the aspects of the CanCon definition that relate to care topics were considered in particular. In addition to these aspects, the CanCon Guide makes clear that basic and translational research are important components of a CCCN, page 95.
   *A CCCN gathers optimal conditions to conduct not only basic research but also translational research, observational studies, clinical research and health services research; this is made possible by having a critical mass of researchers and clinicians, a common patient information platform, standard operating procedures for tissue analysis, and shared biological resources and bioinformatics facilities.*

The SoS include requirements for clinical trials/studies but include only at a very high level (standards 1.7.6-1.7.9) the necessary structural, process and resource requirements for basic and translational research and its integration into practice-changing care in a CCCN. The Working Party acknowledges that a CCCN which is truly comprehensive in its approach also needs to measure itself and comply with research-based standards.

Therefore, in the same way that some minimum criteria are set for clinical research in the CCCN (e.g. a 5% minimum accrual to clinical trials (standard 1.7.4), minimum criteria should also be set for translational and basic research, such as the number (FTE) of research scientists and the number of peer reviewed publications per year, as well as compliance with further standards around basic and translational research.  This would evidence the existence of a "research cluster" within the CCCN (CanCon Guide, pages 90-91).

(2) Comprehensiveness as it applies to substantially all tumour types in an integrated system

The CanCon Guide defines the objective of a CCCN as "to provide comprehensive cancer care for an entire population within a catchment area".
The below standards for CCCNs define overall standards. WP10 has also defined and agreed standards and quality indicators specifically for colorectal and pancreatic cancers. Due to the given project time, it was necessary to limit the project to two tumour types. In following projects resp. Joint Actions, further tumour-specific requirements, quality indicators, patient pathways and patient-reported outcome measures should be defined using the instruments developed in iPAAC (Template for SoS, iET-QI Tool for Quality indicators in oncology, Pa2D-method for patient pathways and framework for the implementation of Patient-reported Outcomes in routine cancer care). With this it will be possible to better determine the relationship between the overall CCCN standards and tumour-specific standards and the coverage of certified tumour groups which would be required to truly constitute a CCCN providing comprehensive cancer care for an entire population within a catchment area.

### 3. Set of Standards: content and objective

The requirements for the organisation of CCCNs are summarised in Sets of Standards (SoS). According to the definition for CCCNs (see 2.), there is a generic set of standards ("Standard for Comprehensive Cancer Care Networks" SoS 1) and additional tumour-specific sets of standards with quality indicators and patient pathways. For iPAAC, taking into account other European initiatives (ECIBC), and in synergy with iPAAC WP 8, it was decided to focus on the tumour entities colorectal and pancreatic cancer and to develop requirements for these ("Standard for Colorectal and Pancreatic Cancer Care Networks" SoS 2).

Both SoS have the same structure and the same table of content. The chapters include, among others, standards for
- the organisation and processes of the network with a focus on the implementation of interdisciplinary tumour boards
- the rules and contents of the cooperation between the partners
- the obligatory disciplines represented in the tumour-specific network,
- the conduct of and access to studies
- the participation of patients and
- tumor-specific quantitative and qualitative minimum requirements for the expertise of the network partners

The generic catalogue of requirements "Standard for Comprehensive Cancer Care Networks" summarises the non-tumour-specific requirements for a CCCN. However, since oncological care is tumour-specific, tumour-specific SoS, quality indicators and patient pathways are necessary in addition to the generic SoS ("Standard for Colorectal and Pancreatic Cancer Care Networks").

An essential aspect of the monitoring framework of the CCCNs is to measure and visualize the quality of oncological care in CCCN. Starting point for quality measurements are the Data Sheets (DS) which are an integral part of the tumour-specific Set of Standards. The DS itemises the quality indicators, that report to the guideline-appropriate treatment, and other key figures that asses the cooperation within the certified network and the expertise of the main treatment partners. Most indicators are tailored to the specific tumour entity and include specific diagnostic or therapy requirements. The majority of the indicators have target values whereas others have defined plausibility limits in which the certified networks have to give a mandatory statement of reasons as to why the limits were overstepped. For a successful certification the cancer networks have to meet the target value or give a plausible explanation in case they are not meeting the value.

The filled-out Set of Standards and Data Sheets have to be submitted annually according to the specifications outlined in the monitoring framework (link to document).

Through the SoS, DS and the monitoring framework a common basis for evaluation in the certified networks is established and as such the foundation to identify and reduce differences of quality of care not only between networks, but also between regions and countries is laid. Moreover, thanks to the established structures and the comprehensive data collection a Plan-Do-Check-Act-Cycle for continuous improvement at provider and network level has successfully been implemented: In the course of the audits the performance especially on the basis of the quality indicators is reflected, discussed and if necessary improved by defining and applying suitable actions within the network. The outcomes of this measures would then be evaluated during the next audit.

## 4. How to become a CCCN

In order to become a certified CCCN the applicant has to fill-out the document "Set of Standards for CCCN" and "Set of Standard for Colorectal and Pancreatic Cancer". All described standards in regards to network structure, multidisciplinary cooperation, cooperation with referrers and aftercare, psycho-oncology, social work and rehabilitation, patient participation and empowerment, research and clinical trials, nursing care, general service areas, organ-specific diagnostics, radiology, nuclear medicine, organ-specific surgical therapy, medical oncology, radiation-oncology, pathology, palliative care, hospices and home care as well as tumour documentation and patient registry have to be described and implemented.

In addition, the key figures found in the annex for colorectal and pancreatic cancer need to be documented for at least 6 months prior to initial certification.

Once the submitted documents were reviewed for completeness and coherence an audit with a team of oncological specialist will conduct a 2 day on-site visit in order to verify the provided information in regards to described structures, processes and results of the key figures. Discussions will be held together with the prospective CCCN to identify measures for quality improvement if needed.

The auditor will issue a recommendation weather a certificate should be awarded or not. Final decision for the awarding lays at the hands of the certificate awarding committee. More detailed information on the monitoring framework can be found in the document "Monitoring Framework for CCCN" (link).

It is important to note that the oncological experts who carry out the audits in the CCCN only recommend if a certificate should be awarded. The decision to award the certificate is under the jurisdiction of the Certificate Awarding Committee. This committee is staffed by experienced oncological experts who were not involved in the corresponding audit and awards or denies the certificate based on the audit report and the auditor's recommendation.