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OECI
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GENERAL ASSEMBLY
SCIENTIFIC CONFERENCES
AND RELATED EVENTS

DEVELOPING THE FUTURE IN COMPREHENSIVE CANCER CARE

Editors:
Thierry Philip, Giovanni Apolone and Claudio Lombardo

Authors:
Jean Benoit Burrion, Simon Oberst, Wim van Harten, Paolo De Paoli, Peter Nagy, Gunnar Saeter, Mef Nilbert, Jozsef Lövey, Eva Jolly, Harriet Blaauwgeers, Willien Westerhuis, Heidi van Doorne, Jolanda van Hoeve

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ACCREDITATION AND DESIGNATION PROGRAMME 2022

OECI
Organisation of European Cancer Institutes
European Economic Interest Grouping

OECI TRAINING ACCREDITATION AND DESIGNATION AUDITORS

OECI Training A&D Auditors
Villa Verganti Veronesi
INVERUNO
24-26 October 2022

Welcome to the OECI training for new auditors at the lovely Villa Verganti Veronesi, Inveruno.

The aim of this course is to provide the trainees with the knowledge and skills required to perform an internal audit of a cancer centre participating to the OECI Accreditation Programme.

Over the two training days, you will learn the A&D standards, how to do a successful interview and report your findings using the e-tool. This interactive programme was developed in cooperation with Kerteza.

We hope it will be an inspirational environment to prepare you for your future A&D peer reviews.

We wish you a pleasant and informative stay!

Message from OECI President

Welcome to this edition of this Special Issue of the OECI Magazine: Excellence in Cancer Care and Research.

Our A&D programme continues to grow apace, with enquiries from all over Europe and beyond for our accreditation services. This will be spurred on by the calls for proposals being made by the EU Cancer Mission and Beating Cancer Plan, which are a very significant investment in the future of cancer research and high quality care in Europe.

I am particularly grateful to the hard work of the audit teams, the A&D Board and Director, the co-ordinators, and all who help the smooth running of the A&D Programme. But above all to the dedicated teams in our OECI centres and institutes, and their patients, who work tirelessly to improve quality and outcomes for our patients.

This is a huge challenge which has been complicated by the Covid-19 pandemic, but we continue to see welcome progress in quality in all our centre: better multidiscplinarity, better patient-centeredness, better collection of data, and better outcomes.

Congratulations to all in this great endeavour!

Thierry Philip
OECI President

Special Issue OECI Magazine

***Simon Oberst**, Director of Quality and Accreditation, OECI*

Welcome to this special Issue of the OECI Magazine: Excellence in Cancer Care and Research – focussing on excellent practices identified in centres through the OECI A&D process.

The OECI Accreditation and Designation (A&D) programme for cancer centres is now into its third decade since it was conceived and piloted. From the outset, the objectives were all about improving the quality of cancer care and research across Europe, establishing best practices, and formulating standards and a robust certification system for cancer centres.

Since those early beginnings in 2002, the programme has now grown to more than 55 of Europe's largest cancer centres in 18 Member States plus Norway and the UK, and is now expanding beyond Europe, at the request of centres elsewhere in the world to have a robust certification of quality in cancer care and research.

The Programme has a clear focus on quality improvement, rather than on 'labelisation', and the centre's Improvement Plan in response to findings of the OECI Final Report becomes the key document for change and improvement. OECI can thus plot the progress of centres from the detection of opportunities by the audit team, to the completion of the improvement action.

In addition, the audit teams look for outstanding strengths and practices of centres in care, education and research. Many of these ways of working are 'home grown' in centres, and deserve dissemination, and this is what this showcasing of excellent practices in this Special Issue is all about.

The A&D Quality Programme is intended to create a community of practice among cancer centres in and beyond Europe, where excellent practices in care and research organisation are shared, and where we can learn from each other and collaborate more effectively. The EU Joint Action on the Creation of a Network of Comprehensive Cancer Centres in the EU (CraNE) will be another opportunity for cancer centres to come together and collaborate in "raising the bar".

Introduction to the OECI A&D Excellent Practices exercise

***Jean-Benoît Burrion**, Chair of the OECI A&D Programme*

The ultimate mission of OECI is to bring together cancer care and research institutions from all over Europe with a view to form a cooperative society, where mutual questioning, sharing of experiences and information, exchange of visions, successes, failures and expectations can help its members to better fulfill their missions and serve the community.

A major contribution to this objective is the A&D Programme, set up to help centres to enter a dynamic of steady improvement, while awarding them with both peer and public recognition.

The strengths of the accredited centres have been documented in the audit reports, constituting material that can be a valuable resource for others. It became clear that the use and dissemination of this material for the benefit of the OECI community was fully in line with the vision and mission of the organisation.

In 2021, the A&D Board decided to translate this into a concrete project named "OECI Excellent Practices". A method and a schedule were developed, including, as initial step, the compiling of an exhaustive list of the strengths identified in the certified centres. Nearly 300 items were numbered and briefly described. An eligible sub-list was then established based on criteria including: relevance, effectiveness and efficiency, patient orientation, transferability. The eligible list was scored and discussed by the Board, ending with 30 "OECI Excellent Practices". For each practice selected, a detailed script was then requested from the concerned centres, in a consistent format (Challenge to be addressed; Solution; Critical success factors; Next steps; Contact for more information). 21 excellent practices were responded to by the centres.

These are now published in this special edition of the OECI Magazine. You may also find them on the A&D pages of the OECI website.

The intention is that our centres can learn, interact and contact each other to develop improved practices in care and research. We would also like to give more visibility to practices that deserve a focus, as well as to the centres that have promoted them. We hope that this project will indeed generate a dynamic of exchange, while bringing centres closer together. A new "Excellent Practices" edition could take place in the next 3 years. In the meantime, we hope that the project will generate spontaneous proposals for "Excellent Practices" and produce fruitful discussions on those already presented.

A final word: this "Excellent Practices" project could not have been carried out without the tenacious and rigorous work of the A&D coordinators, nor without their excellent knowledge of the A&D Programme and its history. I would like to thank them for their professional commitment.

Institut Jules Bordet (IJB)

Preserving, restoring and enhancing the well-being of cancer patients, their relatives and their healthcare professionals: an integrated multidisciplinary supportive care approach

Contact: ***Yves Libert*** *- yves.libert@bordet.be*

Challenge which the practice addresses

Cancer treatments and the progression of cancer can lead to numerous medium and long-term side effects at the somatic, psychological and interpersonal levels. These side effects can make it difficult for patients to complete their cancer treatments with optimal compliance. Patients' relatives are also strongly impacted by cancer at the psychological and relational levels. Oncology is faced with the challenge to optimise the quality of life of cancer patients and their relatives with respect to physical, psychological and relational well-being aspects. To meet this challenge an integrated multidisciplinary supportive care approach is needed.

Solution

- To develop psychological interventions supported by written manuals and assess their efficacy on cancer patients and their relatives at different stages of the disease, using rigorous methodologies (such as randomisation between early versus late intervention)
- To develop programmes for training cancer physicians in communication skills to prevent burn-out and to improve their well-being, and consequently improve patients' satisfaction with their medical care and compliance with their physicians' advice
- To develop supportive care interventions allowing multidisciplinary care for all patients and their relatives, aimed at better management of their symptoms (e.g. pain, distress, mucositis, skin toxicities, sleep disturbances).

- To screen on a regular basis using validated tools (i.e. Edmonton Symptom Assessment System (ESAS), Montreal Cognitive Assessment (MoCA)).

Impact

The impact on clinical practices is documented through rigorous methodologies in past and current trials addressing the following outcomes:

- improved regulation of anxiety at the beginning of the survivorship period
- improved emotional regulation in patients with metastatic disease and in patients who have exhausted active cancer treatment options
- improved self-efficacy of cancer patients in communicating with their children about their disease
- improved communication skills addressing uncertainty and hope
- improved decision-making process regarding therapeutic limitations for hospitalised patients with advanced cancer
- increased Inpatients' satisfaction with supportive care and the decision-making process at the end of life.

Critical success factors

- The first success factor is the multidisciplinary collaboration of a psycho-oncology team and an Acute Supportive Care Unit. The psycho-oncology team is composed of 3 psychiatrists and 9 psychologists who are fully dedicated to cancer patients and their relatives, and to the physicians and nurses who care for them. The Acute Supportive Care Unit comprises 2 physicians, and 15 nurses responsible for 8 beds. Both teams are involved in a multidisciplinary clinical approach on a daily basis, focusing on patients and their relatives. This clinical approach is assessed using rigorous methodologies.
- The second success factor is the continuous training process of the health care professionals in these two teams, in the areas of psycho-oncology, of supportive cancer care, and research.
- The third success factor is the strong support from the hospital.

Next steps

The development of future interventions aimed at promoting:

– improved regulation of emotions of distressed patients at the beginning of the survivorship period
– empowerment of cancer patients with metastatic disease
– improved communication between cancer patients and their children
– increased transfer of learned communication skills in health care to professionals' clinical practice
– systematic Advanced Care Planning for patients with advanced cancer
– promotion of Early Supportive Care.

Kortrijk Cancer Centre
AZ Groeninge

The implementation of an interdisciplinary care meeting to offer holistic care

Contact: ***Annelies Courtens*** *- annelies.courtens@azgroeninge.be and* ***Ine Decadt*** *- ine.decadt@azgroenige.be*

Challenge which the practice addresses

In order to offer high-quality integrated care that responds to complex care demands of our patients and their relatives, oncological care in AZ Groeninge is organised in multidisciplinary oncology clinics. In addition, a highly developed and integrated supportive care system is available in a structured way. Dedicated physicians, oncocoaches and allied healthcare professionals collaborate to provide holistic care and better meet the needs of our patients and their relatives throughout the patient journey. However, in daily practice we noticed fragmented care with a lack of interprofessional coordination when a patient was admitted to the acute oncology ward. Due to this gap in coordination, there were, at the time of medically discharge, still unmet practical-, social- and psychological needs within the patients and their relatives.

Solution

A weekly interprofessional care meeting is organised on the oncology ward by the head nurse. This multi-professional discussion is attended by a doctor, a dietician, psychologist, social worker, physiotherapist, a professional of the spiritual and religious service team and a nurse from the palliative support team. To take the patient perspective into account, there is a daily bedside shift reporting. Through bedside shift reporting between nurses in attendance of the patient, the vision of the patient is taken into the weekly care meeting.
The content of the meeting is as follows: first, the doctor reviews the patient's diagnosis and the current medical plan. Second, each healthcare professional defines care objectives/needs of the patient/relatives, based on their expertise. Based upon the input of each healthcare professional, priorities and holistic unmet needs are defined. Where necessary, adjustments in care policy will be implemented during the patient's admission. The team makes clear agreements and designated responsibilities regarding follow-up and discharge.

Impact

The patient's care plan and discharge are prepared in a multidisciplinary manner and supported by the entire team. This holistic approach allows to better meet patients' needs and expectations and resulting in fewer unmeet needs upon dismissal. In addition, transmural and internal supportive care programs such as smoking cessation consultations; oncological rehabilitation; facilities for emotional and practical support for children; cooperation with primary care used in a more structured and efficient way.
Through the involvement of a physiotherapist, a professional of the spiritual and religious service team and a nurse from the palliative support team, more attention is paid to early care planning or coordination of palliative/end-of-life care. This crucial process of continuous dialogue between patients, relatives and healthcare professionals with the aim of clarifying patients' values and wishes regarding the end of life, results in a faster and better palliative care policy, holistic end-of-life care and for the patient and loved ones a piece of mind and quality of life.

Critical success factors

- Upon implementation, the objective of the meeting has to be clear for each healthcare professional and the time and location should fit in the agenda of everybody.
- The care professional of the ward who has a good overview of the patients' unmet needs (or attended the bedside shift reporting), should be in charge of the coordination of this meeting, for example the head nurse.
- Report of the concrete care objectives and to-do's are crucial and must be available to all team members.
- The effectiveness is determined by the physical mandatory presence of each healthcare professional. In case of absence, a representative reserve must be present.
- Keep patients and relatives informed about what was discussed in the weekly meetings. In this way, there is a continuous interaction. They get the feeling that they are an equal partner in striving together for optimal care and that discharge to home is not forced when (non-medical) unmet needs are still present.

Next steps

With regard to the further dissemination of early care planning a registration button will be developed in the electronic patient report. This will allow every healthcare professional to structurally document the current wishes and needs surrounding the end-of-life of the patient and their relatives. The evolution of the needs and wishes can be monitored and discussed by the team.
Through this holistic and interprofessional meeting more topics are addressed concerning the unmet needs of the (grand)children of patients. This results in an expansion of the facilities for the children outside the hospital and the introduction of a backpack with communication and supporting tools.
It is desirable to review this concept and opportunities with our patient advisory board and options for digitizing this meeting are being explored.
Finally, opportunities to optimize communication with primary care during admission are reviewed.

Lillebaelt Hospital,
Vejle Cancer Centre

Vejle Hospital
– a part of Lillebaelt Hospital

Shared Decision-Making

Contact: ***Karina Dahl Steffensen*** *- Karina.Dahl.Steffensen@rsyd.dk*

Challenge which the practice addresses

Shared decision-making (SDM) is a collaborative process that allows patients and healthcare professionals to make care decisions together, taking into account the best scientific evidence available, as well as patients' values, preferences, life situation and willingness to know about disease process and prognosis. The benefits of SDM are well documented but implementing SDM at institutional level is challenging. Cultural barriers are some of the biggest hurdles among both healthcare professionals as well as patients and relatives.

Solution

Health care organisations committed to creating an SDM culture need to formally prepare clinicians and patients for what are often new roles in making healthcare decisions together. Physicians may need to improve their skills in encouraging patients to openly share their values, fears, and preferences - and understand that SDM is a process of helping patients identify what is most important to them. Many patients will require encouragement and guidance to truly engage with their clinicians in SDM.

Systematic implementation efforts work with improvement of SDM skills for leadership, training of SDM teachers, training of clinicians as well as development and implementation of patient decision aids recognizing that these are strong facilitators of SDM in the clinical encounter, explaining the benefits, risks, and uncertainties of options in a balanced way. Patients can be prepared for SDM before and during the clinical encounter by using various information sources that explain SDM to the patient.

Impact

In March 2017, the Danish national annual survey of patients' experience showed that from 2015 to 2016, the oncology department at Lillebaelt Hospital substantially improved its ratings on the majority of the survey questions, measured on a 5-point scale (from 1 "not at all" to 5 "yes, to a high extent"). The gains were particularly large for these two questions: "Did staff give you the opportunity to participate in decisions about your examination/treatment?" (increasing from 4.05 to 4.34) and "Did staff give relatives the opportunity to participate in decisions about treatment?" (increasing from 4.10 to 4.44). In comparison, the Danish national average for both questions is < 4.0.

In addition, the Center has initiated several research projects during the last few years, mainly in the area of decision aids to support shared decision-making in diagnostic or treatment decisions. Results show that applying a decision aid results in an overall increase in SDM behaviour and has a significant positive impact on patient-reported outcomes. We are also engaged in projects on organisational aspects, e.g. timing of decision aids and duration of consultations. Some of our current research projects are described on our webpage www.cffb.dk.

Critical success factors

Five factors have been identified that are instrumental to effectively implement SDM across an organisation:

- Leadership; organisational, clinical leaders as well as patient leaders who will champion and facilitate SDM, including practical support to overcome obstacles;
- skills development; awareness-building, preparation, training, and support for clinicians and patients;
- tools; availability of patient decision aids and other materials to support SDM, together with a means of embedding them into clinical pathways to ensure ease of use;
- performance measures; instruments for monitoring effect on quality of decision-making and patient outcomes, and
- proof of concept; demonstration projects and evidence that SDM can be beneficial in the local context.

Next steps

Cultural change requires considerable perseverance and patience. Many clinicians firmly believe that they are already practicing SDM and pay little attention to change. In the years to come, therefore, the primary aim is to investigate and describe factors contributing to adoption, implementation and sustainability of SDM.

The use of decision aids is a natural facilitator for implementing SDM. Despite this, there is a notable intention-behaviour gap in the use of decision aids in routine clinical settings. Therefore, the next step is to collect evidence with the aim of understanding the actual uptake of decision aids in healthcare settings.

Lillebaelt Hospital, Vejle
Cancer Centre

Vejle Hospital
– a part of Lillebaelt Hospital

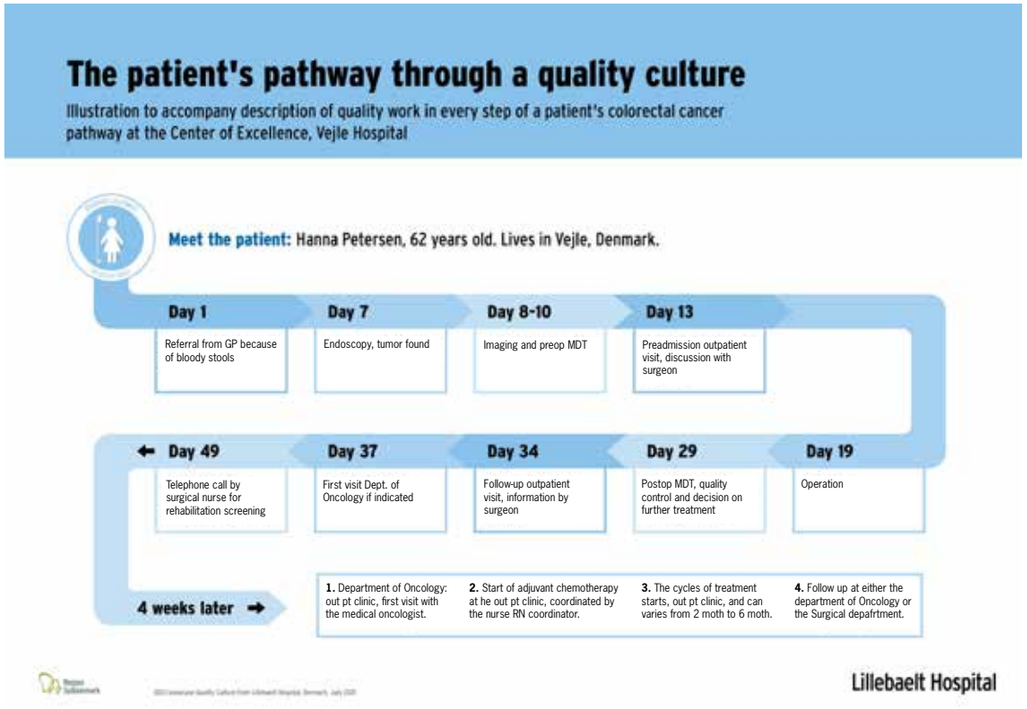
Optimisation clinical and logistic quality

Contact: ***Camilla Havsteen*** *- camilla.havsteen@rsyd.dk*

Challenge which the practice addresses

The patient's pathway from referral through clinical workup to final treatment used to be long and not well planned or coordinated. Waiting times were too long, and clinical processes were subject to undesirable variation. We wanted to optimize clinical and logistic quality as well as the patient experience.

Solution



Impact

Results from the National Survey on Patient experience (NSP): According to the results of the NSP, the Oncology Department performs very well on the vast majority of questions. 99 % of outpatients find staff friendly and welcoming, while 96% of patients are satisfied with the treatment. 87 % of the outpatients feel that their MD (Medical Doctor) takes responsibility for their clinical pathway. The Department of Organ Surgery and Plastic Surgery also achieved great results: 100 % of patients find staff friendly and welcoming, 100 % feel informed about the effects of new drugs. 76 % feel that staff allow relatives to participate in treatment decisions.

In our quality culture, every step of a patient's clinical pathway is and has been analysed and improved. Among other factors, this applies to systems and procedures, which ensure a fast track, checklists for safe surgery and medication, professional communication, involvement of patients and relatives and a strong palliative and rehabilitation effort.

Critical success factors

- Involvement of patients and relatives through the Patient and Relatives Council
- A strong organisational setup with a Programme Steering Committee for the Patients Cancer Hospital.
- Strategic focus on engaging all staff in recognising potential areas for improvement and the creation of solutions. This focus is part of The Southern Denmark Improvement Model.
- Respecting the professional knowledge and pride of employees in carrying out tasks. This includes a very high degree of autonomy and rests on a foundation of a trust-based flat hierarchy. This also applies to the trust among colleagues: We trust information given by our colleagues and do not need management to approve every-day decisions.
- Easy access to high quality data, including Patient Reported Outcomes
- Educating management in leading improvement processes
- Understanding that quality improvement must cover both organisational and patient perceived quality as well as clinical quality.

Next steps

- Quality improvement never ends: Quality indicators and observations from employees, patients and relatives show us where there is still room for improvement and how to improve. In this way, we are constantly tightening and loosening both the bigger and the smaller screws: cooperation, communication, workflow, treatments, technical solutions etc.
- Programme Plan III: We have set sail on an innovation process which will result in our Programme Plan III for The Patient's Cancer Hospital in Vejle.

Helsinki University Hospital Comprehensive Cancer Center

Noona software

Contact: ***Johanna Mattson*** *- johanna.mattson@hus.fi*

Challenge which the practice addresses

Digital services have rapidly increased and more and more people are used to do errands or accessing information digitally via the internet at their convenience. A patient-centred, patient-friendly IT service for cancer patients is needed to easily contact the cancer care team or report adverse events/symptoms or PROMS/PREMS during the patient pathway.

Solution

HUS CCC developed an electronic patient-reported outcome (ePRO) software-application for cancer patients together with a Finnish start-up company. The Noona software is a web-based application for cancer patients to contact cancer nurses between appointments and to self-report symptoms, adverse events of treatments or reply to queries or questionnaires via a computer or smart mobile devices. In the Noona system:

Patients
- ask questions
- report symptoms
- reply to structured questionnaires

Nurses
- answer the questions
- send care instructions
- send symptom, QOL or other questionnaires
- check patients´ replies
- consult physicians if needed
- check the summaries before treatment cycles and consult the treating doctor if needed

The whole pathway covered
- Surgery module
- Systemic treatment module
- Radiotherapy module
- Follow-up module

Impact

- Most breast cancer patients are willing to use mobile services (Mattson J et al. ASCO 2018).
- PROMS may help to detect disease recurrence or severe side effects earlier and improve treatment outcomes and reduce health care cost (Basch E et al. J Clin Oncol 2016, Basch E et al. JAMA 2017, Denis F et al. J Natl Cancer Inst 2017).
- Using digital services designed for cancer care may reduce the number of times patients are seen in person at the hospital while increasing digital contact with nurses and physicians on the care-team.
- Along with the Covid19 pandemic it has become obvious that also cancer patients need remote services when appropriate.
- PROMs are an essential part of assessing cost effectiveness of cancer therapies and all questionnaires can be easily incorporated into the system.

Critical success factors

- The public-private partnership enabled the exchange of expertise. Cancer care providers were able to take part in the design of the system from the very beginning. Thanks to the international symptom classifications and the many language versions, the system can also be used in other countries. The private company succeeded in developing a software that is easy to use and has an attractive design.
- A randomised investigator-initiated clinical study was conducted in breast cancer patients during follow-up after primary treatment to scientifically verify patient preference, satisfaction, quality of life, symptoms and cost during digital follow-up.
- The Noona software is widely used at the HUS CCC and at the Tampere University Hospital Cancer Center. The Finnish start-up company was bought by Varian in 2018 and Varian was bought by Siemens in 2021. Both companies have prioritised the further development of the software and have client hospitals internationally.

Next steps

HUS continues to be a major collaborating hospital partner and at the moment the integration of the Noona software with Epic is currently being prepared.
Digital systems enable sharing data and learning from it with artificial intelligence. Today, the system covers the entire patient pathway and includes a module for mental support as well. There is potential to expand its application further for instance to remotely monitor patients with different devices. Additionally, the system also provides the option of digital coaching for a healthy life style.

Institut Curie

Patient-oriented quality and risk management

Contact: ***Sophie Oger-Hodge*** *- sophie.oger-hodge@curie.fr*

Challenge which the practice addresses

The challenge of this collective and cross-cutting approach to quality and risk management is to succeed in raising awareness and impact all employees (regardless of their seniority level), to involve them and keep them involved on an ongoing basis. This exercise was all the more complex in this pandemic period.
In addition, it is also vital to involve patients and associations' representatives in this improvement dynamic and it is sometimes difficult to unite their concerns and ask them to share their experiences.
In summary, it requires a great deal of availability, listening, empathy and moderation between the different stakeholders.

Solution

In order to raise awareness and involve professionals as well as patients, we have employed various methods that contribute to continuous improvement. Some examples are:

– We regularly set up experience feedback committees in the different sectors of activity to enable teams to analyse adverse events collectively and to define corrective actions
– We continually conduct patient satisfaction surveys and more punctual interviews with patients to gather their experiences with the care provided in our hospital
– Every month, the Quality and Risk Management team organises awareness and training workshops with professionals
– We have set up an internal auditor cell composed of different professional categories (doctors, nurses, secretaries, quality assurance staff ...) to evaluate the quality and safety of care annually.

Impact

Despite the pandemic we managed to maintain a dynamic activity:
– 65 experience feedback commitees
– 50 audits (including tracer patients)
– Around 200 professionnals attended awareness workshops, and 60 people trained to electronic document management system.
– 5055 patients answered a satisfaction survey

Critical success factors

To ensure the success of the process, it is essential that the management of the institution is committed and shows real leadership. Moreover, this quality management system can only progress if all professionals are committed and participate. Quality and safety are everyone's business.

Next steps

In order to guarantee operational deployment and optimize communication with teams in each activity, we plan to continue with patient and pathway tracer audits and to set up visual management within the care department. Visual management tools make information concrete, readable, understandable and memorable for all professionals, regardless of the position held. All team members therefore have access to the same level of information.
Its objective: to facilitate and share decision-making at all levels.

Institut Paoli-Calmettes

INSTITUT PAOLI-CALMETTES
Centre régional de lutte contre le cancer Provence-Alpes-Côte d'Azur

Recognising the expertise of patients and evaluating the involvement process

Contact: ***Martine Bouyssie*** *- bouyssiem@ipc.unicancer.fr*

Challenge which the practice addresses

The active participation of users in the French health system and their knowledge of their rights to information are bringing changes to the positioning and behaviour of health professionals. In order to reinforce and promote innovative actions of partnership with patients whose common denominator is the individual and collective rights of health users, Institute Paoli Calmettes (IPC) has changed its conception of the relationship with patients. The main aim was to position the patient as an actor in their care and safety by recognising the expertise of patients and evaluating the involvement process. Another aim was to integrate the patient as a member of the team of health professionals and to take action together.

Solution

Patients have been participating in the life of the institution since 2002 with the creation of a Patients' Committee. After some evolution, the institution's strategic orientation today integrates health democracy. In the 2017-2022 IPC Project, Quality Policy and Risk Management contains three parts, including one specific chapter on risk management, by optimising the safety culture, with one specific section on patient experience. A crucial focus is on the recognition of the patient partner in their own care and safety, especially the training and the value of interactive approaches and patient involvement. Today, involving patients in our organisation is at the core of the health democracy axis of the present IPC Medical Strategic Project, and we try to build with patients, and not for them. From an operational point of view, some specific actions are in place such as the organisation of internal audits or the participation of the members of the Patient's Committee in questioning patients to collect their feelings on the quality of the care.

Impact

The patient provides a different but complementary perspective to traditional clinical decision-making bodies. There is an interaction between the culture of the patient's experience and the hospital world with its regulations and financial requirements, with a co-construction approach. Step by step the patient's presence spreads naturally throughout the establishment: its committees, its activities, and its projects including the promotion of the expert patient within IPC. Today, after a training course, patients carry out some internal audits and facilitate the conception/design and the implementation of a new organisation of care or process. The integration of the users project is a recognition of such sharing.
We assess patient experience in four areas (information, consultation, involvement and cooperation), which show patients' perception in their involvement. This assessment depends on patient ability and desire to be involved in their pathway. We have added these levels to the satisfaction survey that patients complete when they leave.

Critical success factors

- Prepare teams for a culture change.
- Initial actions towards patient engagement can be initiated and carried out by local teams independently.
- Implementation at the level of the institution and any initiative that is intended to be sustainable requires the support of IPC's Management and other bodies of the governance of the Comprehensive Cancer Center.
- The success factors need to follow the following steps:
  1/ Identify patient profiles and increase recruitment channels
  2/ Build the partnership between patients and professionals
  3/ Value patient or professional feedback
  4/ Facilitate the involvement and commitment by professionals

- The patients can help healthcare professionals to :
  – Make a shared diagnosis and be proactive, that is to say best practices
  – Make proposals about appropriate organisation
  – Ensure that the organisation is compliant
  – Identify adverse events associated with care and report them as soon as possible.

Next steps

Other projects are being prepared, in particular the patient analysts who are able to analyse the root causes of organisational adverse events.
More recently, patients have been included in a working group tasked with collecting actions to improve care of disabled patients.
A training course has been developed for three members of the Patients Committee, and three user representatives also attended. Now they are carrying out some analyses with health professionals.
Other patients have been trained to support professionals in improving the care pathway using the French National Authority for Health (HAS) assessment methods.

Institut Universitaire du Cancer de Toulouse-Oncopole

Radiation Oncology

Contact: ***Elizabeth Cohen-Jonathan Moyal*** *- moyal.elizabeth@iuct-oncopole.fr*

Challenge which the practice addresses

The IUCT-Oncopole Radiation Oncology department (ROD), equipped with 8 bunkers and 7 complementary accelerators, all brachytherapy technics, treats 3000 patients /year and is dedicated to high quality and secure treatments and to innovation and translational research from bench to bedside and back to bench.
All new techniques are offered to patients including all the intra-cranial and extracranial stereotactic treatments.
The department aims for continuous optimisation of radiotherapy treatment including best choice of machine for each patient, reduced delays at each step of the treatment planning, and an always-thorough quality and safety culture.

Solution

The IUCT-O ROD has developed radiotherapy optimisation through several axes involving at least two INSERM research teams by:

- studying radio-resistance mechanisms, biologic and metabolic tumour heterogeneity, particularly on glioblastoma to discover new targets to be inhibited and to better define the target to be irradiated through multimodal metabolic imaging
- optimising the dose delivery on tumour heterogeneity
  – transferring the results from the labs to the ROD through clinical trials with longitudinally obtained biomarkers and multimodal imaging.
- studying prediction of response to treatment with AI specialists
- performing systematic “a priori” risk analyses for all new techniques
- weekly quality meetings including a representative of all professions of the ROD
- performing audits of the delays at each step of the treatment planning and patient satisfaction surveys

Impact

In addition to 44 clinical trials for which radiation-oncologists (RO) are PIs, several national academic clinical trials and national scientific programmes designed and coordinated by physicians are being run in all the main tumours as well as pediatric tumours including neurocognitive studies.
Several academic trials designed by RO associate immunotherapy and radiotherapy, accompanied by biomarker and imaging studies.
Two clinical trials were completed showing that metabolic areas defined by MRI spectroscopy were predictive of the site of relapse in glioblastoma, leading to characterize at least 50 glioblastoma stem cells which allow the development of another national program on tumor heterogeneity.

Critical success factors

- The strength of the department in translational research started with the involvement of the two academic physicians in two research INSERM units on radiobiology, imaging, radiomics and physics.
- The team includes complementary researchers in the field of biology, imaging, clinicians, pathologists, and physicists
- Several young physicians of the Radiation Oncology Department (ROD) are doing a PhD programme (radiomics, IA or biology) in the research units.
- AI programs are developed with recognised units and engineering schools in Toulouse.
- A dosimetrist and a physicist are designated as referent for each trial.
- The trials are presented at the weekly meeting in front of all the department’s actors.

Next steps

Such programmes will be expanded, thanks to the young physicians trained to translational research and in charge of different tumours in the clinic. These investigators are already coordinators of national trials and will develop more trials in the future while being part of research units.
The technical development and choice of the machines discussed in conjunction with the physicists will fit to the future development of our research axes including targeting the tumour heterogeneity through the best imaging in combination with specific targeting inhibitors.
Artificial intelligence programmes for prediction of response and decision tree development will be amplified.

Publications

- IONIZING RADIATION INDUCES ENDOTHELIAL TRANSDIFFERENTIATION OF GLIOBLASTOMA STEM-LIKE CELLS THROUGH THE TIE2 SIGNALING PATHWAY. Deshors P, Toulas C, Arnauduc F, Malric L, Siegfried A, Nicaise Y, Lemarié A, Larrieu D, Tosolini M, Cohen-Jonathan Moyal E, Courtade-Saidi M, Evrard SM. Cell death Dis. 2019; 10(11):816
- ALPHA6-INTEGRIN REGULATES FGFR1 EXPRESSION THROUGH THE ZEB1/YAP1 TRANSCRIPTION COMPLEX IN GLIOBLASTOMA STEM CELLS RESULTING IN ENHANCED PROLIFERATION AND STEMNESS. Kowalski-Chauvel A, Gouaze-Andersson V, Baricault L, Martin E, Delmas C, Toulas C, Cohen-Jonathan Moyal E, Seva C. Cancers. 2019;11(3).
- THE M6A RNA DEMETHYLASE ALKBH5 PROMOTES RADIORESISTANCE AND INVASION CAPABILITY OF GLIOMA STEM CELLS. Kowalski-Chauvel A, Lacore MG, Arnauduc F, Delmas C, Toulas C, Cohen-Jonathan-Moyal E, Seva C. Cancers (Basel). 2020 Dec 25;13(1):40.
- Intracranial Treatment in Melanoma Patients with Brain Metastasis Is Associated with Improved Survival in the Era of Immunotherapy and Anti-BRAF Therapy. Dalmasso C, Pagès C, Chaltiel L, Sibaud V, Moyal E, Chira C, Sol JC, Latorzeff I, Meyer N, Modesto A. Cancers (Basel). 2021 Sep 6;13(17):4493
- RADIOTHERAPY-PCV VERSUS RADIOTHERAPY-TEMOZOLOMIDE FOR IDH-MUTANT ANAPLASTIC ASTROCYTOMA: A RETROSPECTIVE MULTICENTRE ANALYSIS OF THE FRENCH POLA COHORT. Esteyrie V, Dehais C, Martin E, Carpentier C, Uro-Coste E, Figarella-Branger D, Bronniman C, Pouessel D, Ciron DL, Ducray F, Moyal EC; POLA Network. Oncologist. 2021 Feb 1

Centre François Baclesse

Well organised Day-care Unit

Contact: ***Audrey Faveyrial*** *- a.faveyrial@baclesse.unicancer.fr*

Challenge which the practice addresses

The medical oncology day hospital had to take up the challenge of ensuring the quality of patient care during injectable antineoplastic drug treatment, whilst reducing waiting times. The reflection process focused on the preparation times of treatment in the pharmacy department and provision of treatment to the medical oncology day hospital. The question was how to optimise treatment provision, given that preparation time remained at the same level.

Solution

Our solution consisted in developing a programme referred to as OPTIMA ('Optimisation de la prescription et de la production des anticancéreux en médecine ambulatoire' - optimisation of prescription and production of anticancer drugs in an ambulatory unit), to enable anticipation in the preparation of injectable medication.
As such, we created:
– a questionnaire survey conducted by phone by our nurses,
– a computerised solution (device) communicating with the patient's medical file
– team training on treatment side effects and on the 'phoning' method for telephone surveys

Trained nurses contact patients 24 to 48 hours prior to their scheduled appointment at the centre. They complete the questionnaire during the survey call and provide physicians with all elements enabling them to send an 'OK GO' for treatment preparation. On the day of treatment, patients are seen during consultations for a final check. At the time of their admission in the care unit, the treatment is available for injection.

Impact

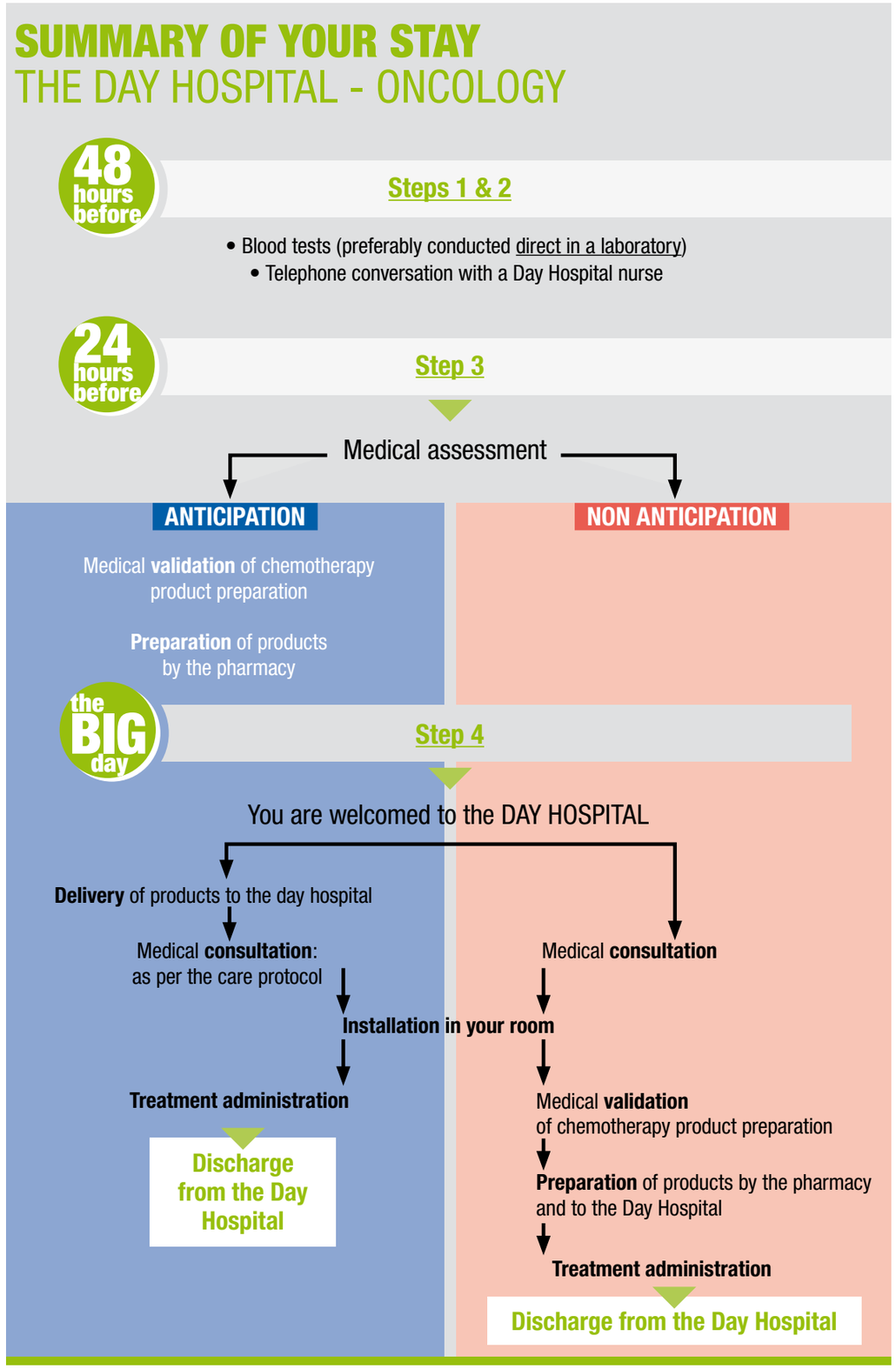
This organisation has been part of our routine since 2014 and covers all treatment and all specialities combined.
However, we have identified that phone interviews of outpatients could be unsatisfactory due to e.g. speech disruption or cognitive impairment. In such cases, outpatients should be seen and checked to determine their eligibility for treatment.

1. The time saved per patient is around 1 hour (Cf. Optimisation of chemotherapy prescription and preparation in an ambulatory unit: Validation of the OPTIMA program - Eur J Cancer Care (Engl). 2019 May;28(3):e13015. doi: 10.1111/ecc.13015. Epub 2019 Feb 20.PMID: 30790365). Monitoring of patient care times in the medical oncology day hospital demonstrates that the Optima programme benefits all patients through critical mass: organisation of treatment preparation at the pharmacy is facilitated, with no bottleneck effect.

Critical success factors

Identified elements that require vigilance are:

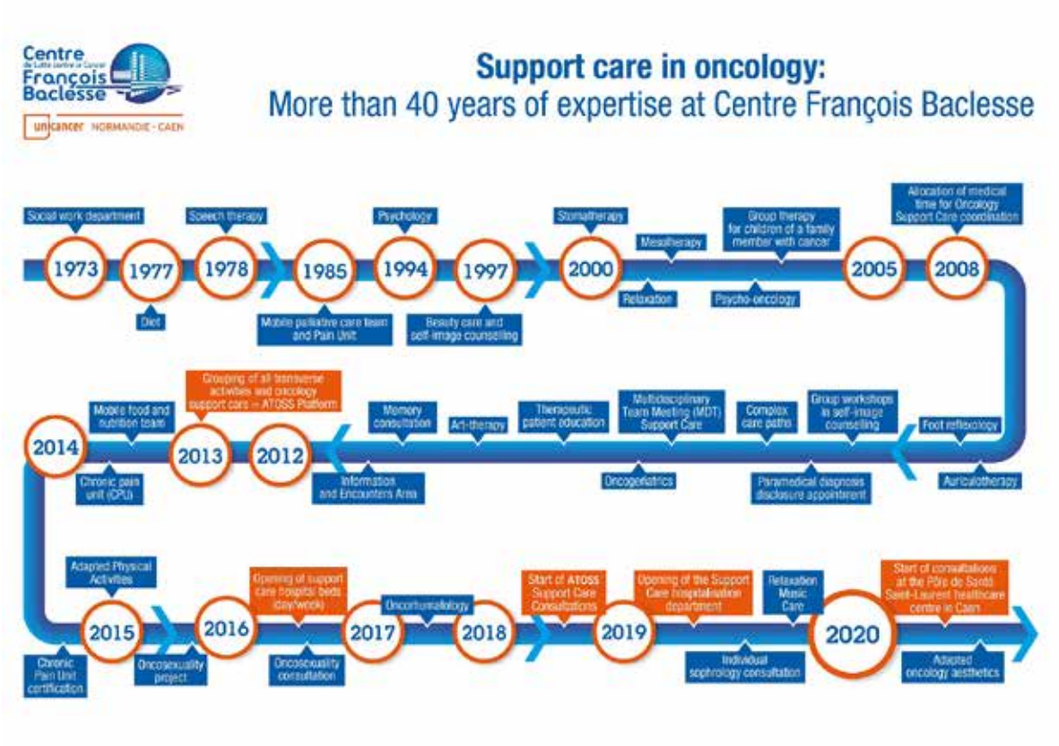
- Ensuring the team's support for the project, particularly from physicians, to ensure greater and faster implementation
- Vigilance with regard to the preparation time of the medical consultation, which must be sustainably integrated within working time: the consultation is organised in two phases: without the patient, in order to validate treatment preparation, and with the patient, the day of treatment administration
- Ensuring that the developed tool can be easily integrated into the IT architecture of the institution, without multiplying the work tools.



- Ensuring the availability of qualified internal skills, so that the computerised tool can evolve according to needs and technical or organisational changes.

Next steps

The department would now like to proceed to the automated integration of self-administered questionnaires of the 'PROM' type, which would offer increased flexibility of organisation, both for patients and for the department's healthcare professionals. Patients could also complete the questionnaire without having to wait for our phone call. This solution appears to be more economical in terms of manpower for an equally efficient result. We are currently studying existing turnkey solutions on the market, to see if they can satisfy our needs. If not, we will then turn to an internally developed or regionally developed solution.



Centre François Baclesse

ATOSS (Transversal Activities in Oncology and Supportive Care)

Contact: ***Claire Delorme*** *- c.delorme@baclesse.unicancer.fr*

Challenge which the practice addresses

From a medical viewpoint, there are many challenges:

- Screening for vulnerability and needs in order to anticipate the complications, adverse effects and/or late effects from treatment
- Adapting to cancer as a chronic disease, developing from the idea of care pathways to life pathways and to the development of care beyond the hospital
- To maintain home-based care for as long as possible
- To address the absence of public reimbursement of many Oncology Supportive Care services
- To develop skills and expertise and to strengthen research

From an organisational viewpoint, the centre is committed to:

- Move from multidisciplinarity to interdisciplinarity
- Adapt to complexity
- Coordinate, inform, communicate

Solution

The centre has chosen to reorganise all Oncology Supportive Care within the same department, to enhance its care offer in reference to publications, to create and develop a specific hospitalisation unit, to encourage the hospital care and external care link.

The following key events are worthy of note:

- 2008: allocation of medical time for coordination
- 2013: grouping of all activities in the same department
- 2016: opening of a scheduled hospitalisation department (day and week hospital)
- 2020: start of outpatient consultations, outside the hospital, in the city centre, involving cancer supportive care
- 2021: creation of a supportive care Multidisciplinary Meeting

Several professionals from the department take part in themed groups at regional or national level, and contribute towards university teaching and a number of research projects.

Critical success factors

- The creation of an oncology supportive care platform was made possible thanks to strong institutional support, integrated in a continuous action. Freeing up medical time for coordination is an essential prerequisite to the grouping of activities and the deployment of interdisciplinarity.
- Funding and support enables access to oncology supportive care for all patients, irrespective of their personal income.
- Internal communication and clarity of the care pathway offer and its organisation are essential in coordinating oncology supportive care services with other treatment modalities.
- The construction and deployment of training programmes and research enable oncology supportive care to be integrated in our long-term policy, innovation and excellence.

CARE

ATOSS PLATFORM

2020 Activity

Supportive care

Chronic pain unit	**2,202** medical consultations **2,089** nursing interventions
Psycho-oncology	**2,498** psychologist consultations **651** psychiatrist consultations
Nutrition	**9,253** consultations and interventions by dieticians **660** cmedical consultations
Social work department	**2,579** appointments
Mobile palliative care team	medical consultations nursing interventions
Functional rehabilitation	**448** speech therapist interventions **1,734** stomatherapist interventions **5,733** physiotherapy interventions **202** adapted physical education sessions for 82 patients • 60 individual sessions for 13 patients in surgery • 38 individual sessions for 8 hospitalised patients • 10 individual sessions for 5 patients in oncogeriatrics • 112 group sessions for 56 patients in the APE programme
Complementary medicine	**300** auriculotherapy consultations **44** mesotherapy consultations
Comfort and well-being	**844** sophrology sessions • 199 group sessions for 396 professionals from the Centre • 637 individual sessions for patients • 8 group sessions for 7 patients **659** reflexology session **749** oncoaesthetic interventions **29** patients benefited from image counselling (1st quarter) **110** adapted oncoaesthetic sessions (AOA) for 48 patients

Transverse activities

Paramedical disclosure appointment	**605** consultations
Complex care paths	'Drift' towards the UAT/Neuro-oncology care path
Oncogeriatrics	**259** assessments **32** medical follow-ups **27** nursing follow-ups
Oncorhumatology	**204** consultations
Therapeutic patient education: • Pain (EFFADOL-K) • ENT • Chemotherapy (PRETORA en Action)	**24** consultations **38** consultations **166** consultations
Oncosexuality	**83** medical consultations **10** nursing interventions
Smoking cessation	**146** nursing consultations **159** external medical consultations
Patient information - Information and Encounters Area (ERI)	**600** visitors (activity reduced in January and February - closure from 17th March to 11th May)

Source : Management control

Impact

The care offer is wide and varied. It is traced and coordinated between the various healthcare professionals involved. It is adapted to suit patient care pathways and is progressive. E.g.:

- adapted physical education is now offered to hospitalised patients as a complement to rehabilitation in Enhanced Recovery After Surgery (ERAS).
- consultations on onco-sexuality are now offered at regional level
- cognitive stimulation workshops are now offered
- onco-aesthetic care is now offered to ENT/UAT patients

Next steps

To develop long-term follow-up consultations in oncological supportive care after cancer in children or young adults; to develop research on this theme.
Raising awareness of our expertise in oncology supportive care; proposing training that meets healthcare professionals' expectations, in order to include them in care pathways and in the post-cancer period.
To pursue the Mindfulness and cancer project, and to develop such a practice for healthcare professionals, in order to enhance quality of life at work.
To conduct evaluation of the quality of care provided in our department.

Critical success factors

Identified elements that require vigilance are:

- Ensuring the team's support for the project, particularly from physicians, to ensure greater and faster implementation
- Vigilance with regard to the preparation time of the medical consultation, which must be sustainably integrated within working time: the consultation is organised in two phases: without the patient, in order to validate treatment preparation, and with the patient, the day of treatment administration
- Ensuring that the developed tool can be easily integrated into the IT architecture of the institution, without multiplying the work tools.
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Next steps

The department would now like to proceed to the automated integration of self-administered questionnaires of the 'PROM' type, which would offer increased flexibility of organisation, both for patients and for the department's healthcare professionals. Patients could also complete the questionnaire without having to wait for our phone call. This solution appears to be more economical in terms of manpower for an equally efficient result. We are currently studying existing turnkey solutions on the market, to see if they can satisfy our needs. If not, we will then turn to an internally developed or regionally developed solution.

Trinity St. James's Cancer Institute
Nursing and Education

Contact: ***Patricia Doherty*** *- patricia.doherty@tcd.ie*

Challenge which the practice addresses

Nursing within Trinity St James' Cancer Institute (TSJCI) is a dynamic and ambitious group and we are committed to quality improvements within the provision of patient-centred care. The need to maintain staff is affected by challenges in staff recruitment, retention and skill mix. Another challenge is our responsibility to treat/care for an ever-increasing patient number utilising our finite resources.
Our education programme in TSJCI will provide flexible education offerings to all those connected with delivering cancer care and performing cancer research. A challenge linked to the roll out of these programmes is sustained investment.

Solution

Our solution has been to provide of robust supports for new staff including clinical support nurses and education and training opportunities. These support instruments receive funding and institutional support in order to ensure their continuous availability.
Ongoing recruitment is orchestrated via social media platforms. To effectively retain staff, the dual tenets of empowerment and collaboration are promoted, for example, the launch of a quality improvement initiative at Ward level.
Our staff are our key asset, and to support their welfare we have introduced multiple initiatives in wellness and well-being. Our staff are always encouraged to avail themselves of all the supports and care pathways they require to maintain and protect their physical and mental well-being.
In TSJCI, we run an MSc in Translational Oncology and an MSc in Cancer Survivorship which cover all cancer modules across the cancer patient's journey from cancer prevention, diagnosis, treatment and cancer survivorship. This suite of cancer modules is open to all postgraduate students for credits to upskill their oncology education opportunities. Mentorship of all trainees taking these programmes is pivotal.

Impact

Our ongoing success is the result of a number of positive elements which include our can-do attitude, dual-ethos of constant pan-service communication, coupled with collaboration. The cancer nursing group and its partnership with Trinity College, Dublin delivers morale enhancement and translates to our aspiration to deliver evidence-based practice in cancer research.

A. Members of St. James's Hospital Nursing staff, taken as part of the 2021 Year of the Nurse celebrations. B. Overview of TSJCI Education programmes

For our taught cancer programmes, we measure impact on where our graduates progress to in their careers. Many go on from our MSc programmes to embark on PhD cancer research work, act as project leaders in clinical trial organisations, and enter into graduate medical school. Many of our health care professional and allied health care workers bring their MSc degrees back to improve practice in their relevant disciplines.

Critical success factors

Our ongoing achievements have been successfully fostered via the application of multiple factors which have included:

- Vision
- Culture
- Collaboration
- Communication
- Accountability
- Nursing autonomy
- Empowerment
- Winning team-think
- Ambition
- Pride
- Ability to attract funding for cancer research

Next steps

Our current focus is placed upon continuous improvement planning within the OECI framework. We are also working towards 'Magnet Hospital' status with the American Nursing Credentialing Centre (ANCC). We aim to boost our nursing research output through the Cancer Nursing Group & Trinity College Dublin.

Iln our education structure, our focus is to significantly increase support for early stage researchers across all disciplines. We aim to position our flexible, personalised oncology education at a national and international level through the continuous development of a suite of options (certificate, diploma, degree) for scientists, health care professionals and allied healthcare workers.

Oslo University Hospital Comprehensive Cancer Centre (OUH-CCC)

Translational research and innovation

Contact: ***Kjetil Taskén*** *- kjetil.tasken@medisin.uio.no and* ***Ketil Widerberg*** *- kw@oslocancercluster.no*

Challenge which the practice addresses

A lot of publicly funded cancer research is not translated into clinical practice and innovation for the benefit of patients. Conversely, patient needs identified by clinicians are not efficiently connected to the potential in research and innovation environments. Meeting these challenges are dependent on an ecosystem encompassing a strong chain of activities ranging from basic discovery research via translational to clinical research as well as relevant innovation and commercialisation competences and investment capital. Furthermore, the partners must interact efficiently. Such a sustainable structure takes time to establish.

Solution

Oslo University Hospital CCC (30,000 patients, 9,000 new referrals/year, of which 14% are included in trials) has for many years established the prerequisites for innovation and built an extraordinary cluster comprising comprehensive clinical practice, research and innovation. At its core is the co-location of three units: (1) clinical cancer-related activities representing all treatment modalities and a broad spectrum of cancer diagnoses; (2) the Institute for Cancer Research (ICR https://www.ous-research.no/institute/, 400 staff, 25 research groups); and (3) an innovation center, the Oslo Cancer Cluster (OCC, https://oslocancercluster.no, with > 90 biotech startups, global pharma and technology companies, investors, and with a dedicated building and incubator on site. This ecosystem is characterised by mix of permanent and ad-hoc cross-organisational connections, employees with dual roles and career-development across borders, and cooperation in building and sharing networks externally. Based on the strengths of this core, cancer-relevant activities in the surroundings are incorporated in a geographically wider research and innovation cluster in Oslo and nationally.

Impact

The translational research and innovation at OUH CCC (annually 10-20 inventions leading to approx. and 1-2 new spin-out companies per year) have given rise to development, commercialisation and implementation of a range of new diagnostics and biomarkers, and of new approaches and new therapies in cancer treatment. The innovation ecosystem includes both local start-ups and global companies. One notable spin-out company is Photocure, that developed Metvix, a NMSC skin cancer treatment sold worldwide licensed to Galderma. Photocure is now a dedicated bladder diagnostics company developing Hexvix/Cysview (offices in US and EU). Another example is Algeta, a company that developed Xofigo for prostate cancer (acquired by Bayer for >1,5 billion USD). A third example is Zelluna a promising startup developing a novel cell therapy. Furthermore, the ICR and the research-innovation cluster at OUH CCC are a key driving force in the new and developing strategies for precision medicine and for cell therapy.

Critical success factors

The critical success factors in development of this part of the OUH CCC is following:

- The physical proximity in the core of the ecosystem
- The presence and encouragement of entrepreneurs (recruitment and incitements)
- Ability to promote dynamic organisational structures supporting the crucial interaction
- Sharing infrastructure and supportive competences
- Quality ensured at all levels
- Supportive cultures embracing every part of the cluster

Some examples of these:

- The establishment of an ICR Translational Research and Innovation Committee (TRIC) that meets monthly to discuss projects, support innovators and mobilize internal competencies.
- CCC and ICR Scientific Advisory Boards (SAB) advises on strategy.
- The public-private partnership in CONNECT (https://www.connectnorway.org) facilitated by OCC has been important to organize concerted actions of public and private partners and provide a strategic forum also to advance implementation of precision medicine and to discuss documentation, reimbursement strategies and more.

Next steps

Several emerging initiatives build on the existence of our research-innovation cluster:

- New buildings at the core campus of the research-innovation cluster (2024-25) will further improve the ecosystem.
- Cancer patients with advanced disease now get molecular diagnostics through the InPreD-Norway infrastructure, cases are discussed in our national molecular tumor board and can be included in the IMPRESS-Norway trial (https://impressnorway.com). This national framework and trial capacity attracts further company participation and new trials.
- Implementation of pharmacogenomics and drug screening approaches will further advance precision cancer medicine.
- To advance cell therapy and open opportunities for gene transfer we have launched the Advanced Cell and Gene Therapy Centre, ACT (https://www.ous-research.no/act).
- A 1.2 billion investment is made in a new proton therapy centre with a dedicated gantry for preclinical research, to open 2024.

Basic information about the central units of the OUH CCC research and innovation cluster (such key information could with benefit be available in a footnote)

ICR (https://www.ous-research.no/institute/) (400 research staff, 25 research groups and core facilities, annual budget 30 mio EUR, publication output >200 papers per year) has worked to strengthen translational research, improve coordination and collaboration with clinicians and diagnostic staff in the OUH-CCC and beyond, and to build further excellence in research.
OCC (https://oslocancercluster.no) is a national, non-profit oncology research and innovation cluster with 90 members (biotech startups, global pharma and technology companies, service providers, investors and financial institutions and public partners), covers the entire value chain and offers both incubator space on the OUH-CCC campus as well as access to a breath of competencies with the strong cluster organization (Norwegian Centre of Expertise since 2007).
OUH Cancer Center clinical activities: 30.000 cancer patients yearly, 9.000 new cancer patients yearly, 14 % of new patients included in clinical trials.

The Netherlands Cancer Institute
Central onboarding/introduction programme

Contact: ***Miriam Boer*** *- me.boer@nki.nl*

Challenge which the practice addresses

Most employees are excited to start a new job, but are also uncertain at the beginning. They want to be able to contribute as quickly as possible. Faster deployment of new employees ensures a high level of employee satisfaction, among new and existing employees. This is also important for The Netherlands Cancer Institute, certainly in these times when it is difficult to find personnel. Our challenge is to make new employees feel welcome and important, while at the same time introducing them to our working methods. To achieve this, we wanted to improve our employee journey.

Impact

Before starting the development of the programme, we first conducted a survey among the participants of the old programme. Then, six months after the start of the new programme, we conducted another survey. In this survey, we included questions about the appreciation of the programme, the duration of the onboarding and the appreciation of the organisation. In the first survey, the programme scored an average of 7.6. The outcome of the survey about the new programme was an average of 8.4.

The programme provides a shared frame of reference in key areas of quality and safety, which enhances teamwork.

New employees indicate the following:

- It gives them a warm welcome and provides all the information and tools they need to be comfortable and confident enough to do their work.
- They feel comfortable enough to ask questions, share their ideas, and voice concerns.
- They receive multidisciplinary training, which makes them aware of one of our most valued culture values.
- They are trained in a group, which is more efficient than one-on-one training. Fewer co-workers, who train new employees, are needed. This has a great impact on our productive hours.

Solution

The Netherlands Cancer Institute aims to support new employees master their role, build relationships, and learn about our internal processes. We see it as an investment in the next generation of knowledge experts. For that reason, we have developed an onboarding programme. This programme aims to make new employees feel welcome, have plenty of opportunity to meet with other colleagues and have the opportunity to contribute to patient care right from the start. In addition, new staff is immediately (safely) employable, which saves money and time.
On the first day, all new employees will start with our introduction day. They learn more about our strategy, culture and patient journey. After that, professionals with a direct contribution to patient care start a 3-day multidisciplinary instruction course to learn all about quality and safety in a fun and interactive way.

Critical success factors

Besides the concerning content that must be right, the most critical success factor of this programme is that it is fun! The programme is set up according to an escape room. There are multiple vaults that new employees have to decode while solving knowledge games. They can earn points for the best care. It is played individually as well in teams. The whole escape room is built around the journey of one of our patients, Mr. Pietersen. The aim of the game is to provide Mr Pietersen with the best possible care.

Figure 1: Central Onboarding Programme

Next steps

The programme is now offered to doctors, nurses, surgical assistants and lab technicians. During this programme general and job specific assignments are addressed. In the near future Nurse Practitioners and front- and back office employees will also be included.
The first day, the introduction day, will also be reviewed. More attention will be paid to the patient journey and a new interactive module will be developed with more knowledge about cancer.

Karolinska Institute and University Hospital
Contact Nurse

Karolinska Comprehensive Cancer Center

Contact: ***Eva Jolly*** *- eva.jolly@sll.se*

Challenge which the practice addresses
The challenge was to safely navigate and support the patient through the cancer journey and to provide access to continuity of health care professionals.

Impact
The implementation of contact nurses is followed on a regional level via the quality registers.
Through dialogue with patient organisations we assess the impact of the contact nurses on their satisfaction with care.
We have assessed how the contact nurses perceive their role and identified improvement areas.

Solution
Each patient is assigned a contact nurse from diagnosis and throughout the care process.
The role of the contact nurse is to:
- navigate and support the patient and family during the diagnosis and throughout the care process.
- provide appointment planning for medical procedure and treatments,
- give information about treatments, side effects and care/self-care.
- refer the patient to other health care professionals when needed.
- initiate an individual written care plan for treatment and survivorship planning together with the patient (My care plan).
- have a proactive approach regarding systemic symptom reporting (My care plan)
- initiate and tailor an early rehabilitation process (My care plan).

Critical success factors
One important aspect of success is the fact that the role was described as part of quality development in the Swedish National Cancer Plan
At Karolinska CCC we have adapted the national role description to fit the practice in Cancer Theme.
The nursing leadership has actively worked on all levels in the organisation with the implementation of the role.

Next steps
Further developing the role and activities of the contact nurse in close collaboration with patient representatives and organisations.
Work towards supporting the contact nurses to be able to work more specifically towards the rehabilitation process for the patients.

Karolinska Institute and University Hospital
My care plan

Karolinska Comprehensive Cancer Center

Contact: ***Eva Jolly*** *- eva.jolly@sll.se*

Challenge which the practice addresses
The challenge was to secure that patients were involved, informed, and knew about the plan for their care throughout the care process.

Impact
More patients receive comprehensive information about treatment and side effects. Patients now also receive a written care plan that they can take with them.
The templates are documented through quality assessment follow-up on a regular basis.
Patient satisfaction concerning information and participation in care planning is also followed through the quality assessment system.
We have assessed how the contact nurses perceived the use of the templates and identified areas for improvement.

Solution
The solution was to develop a digital care plan that includes information packages for all diagnoses. The digital care plan is accessible for all involved professionals through the electronic patient record and includes a template for planning the patient's individual treatment and care. This is drafted by the contact nurse in collaboration with the patient.
Examples of the content:
- Contact information to physicians, contact nurse, counsellor and other important health care professionals.
- Support, advice and arrangements during treatment and rehabilitation.
- Different appointments for examinations and treatments and a description of when different examinations should take place.
- Answers to practical questions and a description of self-care.
- Information about the patient's rights, for example the right to a second opinion
- Distinct information on how the follow-up is planned, for example, who the patient should contact if they have questions.
- The care plan after treatment also contains a summary of the care and what is important to think about regarding follow-up and continued rehabilitation.

Critical success factors
We have worked with designated champions (contact nurses and head nurses) to develop and implement this in clinical practice.
We have had several workshops with the contact nurses and the nursing leadership at the Karolinska CCC.
The directors of nursing development have ongoing responsibility for the implementation and further development of My Care Plan.

Next steps
To further develop patient involvement when the contact nurse is planning the patient's treatment.
To support the contact nurses to be more focused in planning of the rehabilitation process for the patients.

Karolinska Institute
and University Hospital

Karolinska Comprehensive Cancer Center

Collaborative multidisciplinary working within the hospital; The 'oval table

Contact: ***Eva Jolly*** *- eva.jolly@sll.se*

Challenge which the practice addresses

Creating a complete process, including co-ordination, based on the patient's experiences and needs. By bringing together interdisciplinary and interprofessional groups including physicians, nurses, allied health professionals, research group managers and patient representatives, the team has the mandate to design, monitor and evaluate the work throughout the patient flow.
The collaboration and co-ordination of care is essential and requires that the members of the oval table have a common goal – to create the best value for the patient.

Solution

In the Cancer theme there are 17 patient flows and each of them has an oval table. The oval table is an interdisciplinary and interprofessional group consisting of the patient flow team, including physicians, nurses, allied health professionals, research group managers and patient representatives. The team has the mandate to design, control and evaluate the work throughout the patient flow. The patient flow has an end-to-end responsibility for the process. The outcome measures are defined within each patient flow and are continuously followed and evaluated, including patient reported measures (PREM and PROM).
By bringing together an interdisciplinary and interprofessional team on a regular basis the development as well as the targets can be easily followed up and kept together. The oval table has the mandate to set priorities with the aim of making decisions as close to the patient as possible and is responsible for the goals, evaluation, initiation of improvements and the improvement plan.
The oval table is led by the Head of patient flow who is the managing physician for the patient group(s). The same person is responsible for keeping the agenda, leading the meeting, and ensuring invitations to relevant people.

Impact

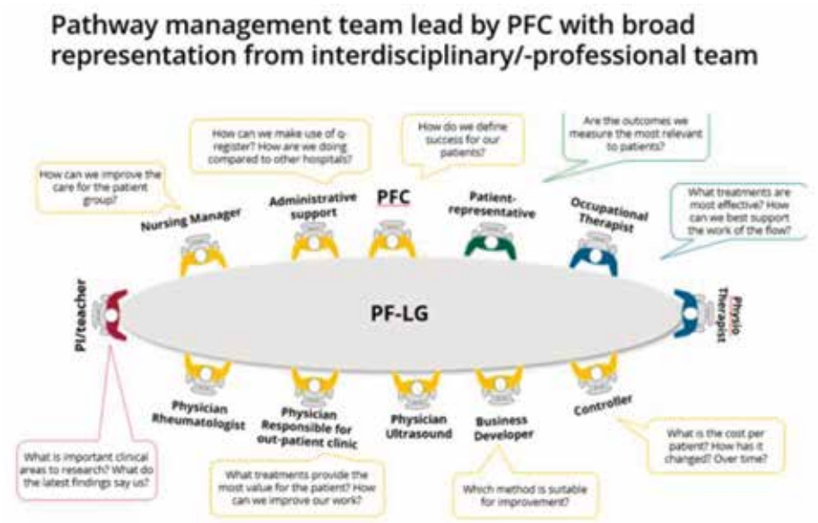
- Standardised care pathways (including lead times); an overall improvement of lead times through optimisation of different parts of the process. Proportion of patients starting treatment within the set target value; 42% - 2018; 61% - 2020
- Oval table meetings have facilitated closer interdisciplinary collaboration between surgical services, radiology, anaesthesiology, pathology, oncology, and other crucial specialties. It has had a significant impact on the patient's perspective, awareness and decision making.
- Patient representation has ensured that the patient's perspective is always present. The patient representative brings important topics /questions from and back to the patient organizations.
- The oval table has developed a way of working with very short decision paths and where patient safety risks can be addressed quickly. This approach has generally increased our focus on patient safety.

Critical success factors

- Common goals developed in the multidisciplinary team in collaboration with the patient representative. This enables everyone to work towards the same goal regardless of profession.
- Clearly defined roles where all participants understand their purpose and how they contribute to the success
- Composition of the table where all needed disciplines are invited, including research representatives from the Karolinska Institute
- Clearly defined agenda, protocol, and commitment.

Next steps

A project has been initiated to further develop the practices and methods in the oval table. This includes a review of the outcome measures created and a revision as well as additions.
Another project was launched to improve co-operation with patient associations. The project aims to improve collaboration in each patient flow and at a Cancer theme level.



Maastricht University Medical Centre+

Maastricht UMC+

Formation of the Comprehensive Cancer Centre structure and 'Circle of Innovation®'

Contact: ***Bernd Kremer*** *- bernd.kremer@mumc.nl*

Challenge which the practice addresses

Prior to 2016, oncological care and oncological scientific research were not optimally integrated at Maastricht UMC+. Patient care took place in the Oncology Center of the hospital and research in took place in the School for Oncology and Developmental Biology of Maastricht University (GROW). Despite numerous and intensive collaborations, there was no explicitly shared vision and strategy and the connection between clinicians and (basic) scientists needed to be improved.
The Oncology Center and GROW decided to intensify their collaboration in 2016 in order to align goals, vision and strategy and to obtain the OECI accreditation and designation as a 'Comprehensive Cancer Center'. Thus the aim was to inextricably link patient care, research and education with one common vision and strategy.

Solution

A first conference for clinicians, scientists and patients was organised in order to meeting each other and to identify common ground regarding what we stand for (mid-2016). At the same time, we introduced the 'Looking at the other's point of view' program, in which doctors and researchers visited each other at their workplaces.
The circle of innovation® instrument developed by MUMC+ was used to make visible our translational work in the field of 'survival with preservation of function'. With the aid of the circle of innovation, we show how we acquire new basic knowledge, how we translate this knowledge into the clinic (translation), how this knowledge is implemented in the clinic, and how this contributes to improving health in the region or to knowledge utilization.
Link to booklet circles of innovation
In a second conference, a number of excellent circle of innovations in the field of 'survival with preservation of function' were presented and discussed. The attendees were invited to develop circles of innovations for their own research lines.
A larger number of newly developed circles of innovations representative of our vision and strategy were presented in a third conference. In parallel, symposia for nurses and other employees were organised ..
Simultaneously, preparations were started for the OECI accreditation.

Impact

Researchers and clinicians visiting each other's workplace gained insight into the opportunities that scientific research is providing for patients and admiration for each other's work.
Defining the scope of the collaboration strengthened the substantive connection between basic scientists and clinicians and the focus on translation of (basic) knowledge.
After the second conference there was cooperation from almost all tumour lines and after the third conference there was broad support for the vision.
During the preparation of the OECI accreditation, the quality of clinical care, research and education was further strengthened and as a result of the peer review, the substantive collaboration was perpetuated through an appropriate governance and financing structure. Further, the shared vision has been made more explicit and the collaboration with other partners in the field of oncology in Maastricht has been strengthened.

Critical success factors

- Critical success factors were emotional connection in addition to the already existing substantive connection and the use of the circle of innovation® to promote and make visible the translation of basic knowledge to implementation in the clinic and to facilitate the conversation between scientists and clinicians.
- The exemplary role of a number of figureheads and the invitation to follow them also played an important role in getting the other colleagues on board.
- Finally, sharing success (almost all tumour lines have been able to show that they match the vision and strategy of the Maastricht CCC), and also the process of the OECI accreditation, were responsible for the broad dissemination of our vision.

Next steps

The next step is to make even better use of the individual strengths of all partners within Maastricht UMC+ in the field of health maintenance and promotion (especially other graduate schools) to enhance the objectives of the Maastricht Comprehensive Cancer Center. The results achieved will also have to be consolidated, and the focus on 'survival with preservation of function', translation of scientific knowledge and prevention, will be further strengthened.

Circle of Innovation: Primary prevention of cancer

MAASTRICHT UMC+ CONTRIBUTES TO CANCER PREVENTION THROUGH HEALTHY LIVING

+ We improve awareness of lifestyle for cancer prevention in the population, healthcare professionals and trainees.
+ We provide personalised dietary advice in combination with innovative foods to reduce cancer risks.
+ We are steering committee member of the Cancer Prevention Europe consortium aimed at reducing morbidity and mortality from cancer in European populations through prevention.

HEALTHY DIET AND LIFESTYLE REDUCE THE RISK OF CANCER

+ We showed that a healthy diet or lifestyle influences the risk of cancer depending on genetic susceptibility and molecular subtypes of cancer, for example, a Mediterranean diet protects against the hard-to-treat hormone receptor negative breast cancer.
+ We demonstrated that combinations of bioactive ingredients in fruits and vegetables can be optimised to improve their cancer preventive effects.

INCREASING AWARENESS FOR CANCER PREVENTION

+ Our knowledge contributes to prevention recommendations of the World Cancer Research Fund, risk assessments of the European Food Safety Authority and to defining the carcinogenicity of agents by the International Agency for Research on Cancer.
+ We collaborate with food industry to innovate processing technologies to reduce the risk of cancer.

RISK ESTIMATION THROUGH PREDICTION MODELING

+ With our knowledge we better understand the importance of diet and lifestyle for cancer risk.
+ We have developed prediction models, including lifestyle factors, to predict the risk of developing cancer.
+ On the basis of our prediction models we are developing lifestyle interventions and food products containing smart combinations of ingredients for personalised cancer prevention.

Maastricht UMC+ Circle of Innovation®

Maastricht UMC+
More knowledge, better life

Maastricht University Medical Centre+

Maastricht UMC+

Training and education system

Contact: ***Marja Vermeeren*** *- marja.vermeeren@mumc.nl*

Challenge which the practice addresses

There is a challenge to provide a job-specific programme of registration, and specific training and education of nurses, nursing specialists, physician assistants and doctors for high-risk procedures.
Due to the covenant of the 'Safe application of medical technology' in 2016, the demand for a good and simple registration instrument became increasingly urgent. When applying medical technology, demonstrable competence and expertise are essential prerequisites. An overview of authorised and competent staff was lacking.

Solution

Within the MUMC+ a solution has been found in a digital system, a so-called Quality Passport. Every staff member has an individual Quality Passport, personalised in keeping with their position, with the skills and authorisations related to the registered position. The Quality Passport describes what the staff must comply with in that department with the aim of making the expertise of the individual staff member transparent. The Quality Passport establishes the requirements (i.e. high-risk skills, use of medical equipment) for which the member of staff must demonstrate his or her competence. The progress of the competency registration can be viewed per staff member, per function, per role or per requirement and all at department level. This provides clarity for both staff and management.
Moreover, within the Quality Passport there is a link to the MUMC+ Training Portal enabling the staff to immediately register for a training course. This can be an on-site training, such as Basic Life Support, or a digital training in the form of an e-Learning.
In this way, each staff member can maintain their own authorisation and skills; this being firstly a personal responsibility. In addition, the manager is responsible for the work of the staff member in their department and they monitor the progress in the Quality Passport in the annual assessment.

Impact

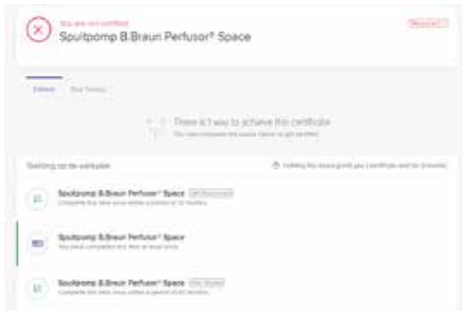
An important improvement is the transparency of completed and/or necessary training courses and the current situation with regard to the topicality of competence and expertise linked to profile. In the Quality Passport, staff can immediately see which training is necessary and how he/she can complete this training. Therefore it is clear for the staff member as well as for the manager which training courses must be followed specifically for each position. The current situation is visible at a glance and can be followed via monitoring, as are the training courses that have to be repeated or concerning new requirements.
In the event of expiring certificates, the staff member will receive an email 3 months in advance containing information about the certificates that will expire. In this way they can immediately link to the Quality Passport from the email and arrange registration (self-declaration), plan a peer assessment or register for a course/training via the Education Portal.
Through this Quality Passport a better awareness and sense of ownership has been created for education and training among healthcare professionals.

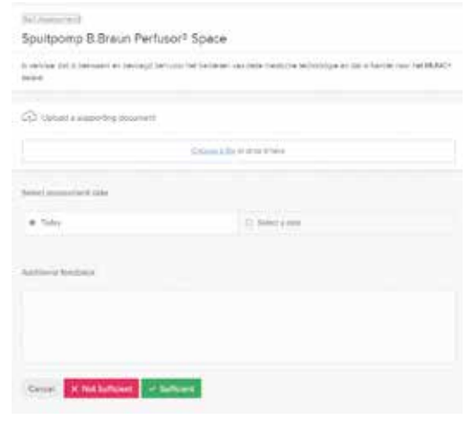
Critical success factors

- Annual Statements improve staff awareness of their competency levels for their role.
- Another critical success factor is the role of the department manager. If a manager frequently places the quality passport on the agenda within the various consultation situations, the staff then is triggered to take his/her own responsibility.
- Reminders by e-mail regarding the topicality of training courses have also added extra value for the staff and manager, as a result of which training courses can be planned in good time.
- Satisfactory digital support for this training with correct visualization, also contributes to better implementation and acceptance, in the form of a real-time dashboard for staff and managers.

Next steps

Deepening staff ownership is the next step. The current registration system is technically sound and the content will be adapted to the needs of healthcare professionals. Further developments of the Quality Passport are aimed at education and training in the form of 'clinical reasoning' in which assessments are performed. These assessments are aimed at testing behaviour and functioning, i.e. especially the practical application of the acquired skills and social competences.
Further developments are mainly aimed at more application of digital techniques such as a QR code for training or task support, or the use of Virtual Reality glasses during training activities.





Maastricht University Medical Centre+

Maastricht UMC+

The integrative approach and mechanisms of IT use

Contact: ***Marja Vermeeren*** *- marja.vermeeren@mumc.nl*

Challenge which the practice addresses

As part of the Maastricht University Medical Center+ (MUMC+) ambition 'Healthy Living', the strategic MUMC+ program 'Our Future Care' aims to improve the outcomes of care and the experiences of patients. Optimal data on patient outcomes is indispensable to further improve care outcomes at the individual and group level. The Comprehensive Cancer Center MUMC+ is working on an adequate and sufficient data infrastructure to provide a good basis for further development of personalised care. The MUMC+ works with different data sources from various domains (including financial, logistics, medical domain and quality). The challenge was to connect these data sources.

Solution

In order to obtain an adequate and sufficient data infrastructure, the various data sources are linked together in a platform (Business Warehouse). The information made available from this platform can be monitored via various real-time data dashboards.
The Care Pathway Dashboard contains information that enables care pathway teams and management to determine and improve the value of care. Self-service data analysis is made possible by easy filtering on case mix variables, among other things.
The Health Information building blocks (zibs) form the basis for standardisation of healthcare information. A "zib" defines a particular clinically relevant concept in such a way that the building block can be used in different healthcare situations and different healthcare information systems. Zibs make it possible to re-use healthcare information and focus on clinically relevant information. Examples of "zibs" are blood pressure, body weight. This simplifies the data delivery for the dashboard, and also the benchmarking of indicators appointed by the scientific medical associations.

Impact

By using the Business Warehouse it is possible to produce a report that provides a quick overview of the critical performance indicators of care of cohorts of patients. Thus from this platform, a deeper analysis can take place of trends, causes of deviations, etc.. The following information is available in this dashboard: Patient Outcomes (Clinical Outcomes / Complications / PROMS), Patient Experience (P(R)EM), Process Indicators (Processing Time/ Access Times) and Cost / Benefits.
Dashboards are also available at other levels within the organisation: administrative level, center level with scientific output, and department level (medical departments and support departments).

Critical success factors

- Critical success factors are supervision and initiators (data managers) with a working group for introduction and joint development.
- A programme has been drawn up for the development of the dashboard in which domain experts (e.g. medical, financial and quality and safety) as well as technical experts are involved.
- To provide the correct data and management information, collaboration between employees with domain and technical knowledge is essential. This reduces the perceived distance between these two worlds.
- The positive experiences of the domain experts involved are generating more interest and demand from the primary care company.
- Images and reports can be exchanged between the affiliated hospitals of OncoZON (oncological network Southeast Netherlands). There is a video with explanation on https://www.twiin.nl/.

Next steps

Further development of the dashboard is aimed at developing generic components (such as medical outcomes, processing time), where we also offer the possibility to show specific content when selecting a care pathway. To guarantee scalability, we use techniques such as Text-mining to allow easy access to both structured (e.g. zibs) and unstructured sources. The first data from the electronic patient record (EPD) that we will add generically to dashboards are case-mix variables based on the minimum set of patient data. The generic components of the dashboard are continuously developed based on input from the domain experts. By using the process mining technique, care and business processes can be made transparent and added to dashboards.

Cancer Research UK
Cambridge Centre

CANCER RESEARCH UK | CAMBRIDGE CENTRE

The Cancer Patient Partnership Group

Contact: ***Lenja Bell*** *- lenja.bell@addenbrookes.nhs.uk*

Challenge which the practice addresses

Cancer Services within the CRUK Cambridge Centre aim to continuously improve the cancer patient experience, from introducing new service developments to changing how care is delivered. It recognises that the best way to achieve this is through patient involvement and co-production. The challenge is the commitment and time required by staff and patient volunteers to do this effectively. An understanding of the importance of patient involvement at all levels, from engaging and consulting patients to involving them in strategic decision making, is essential. A shift in culture is required to have patients and staff working together as equal partners.

Solution

Cambridge University Hospitals within the CRUK Cambridge Centre has committed resource to grow and develop a Cancer Patient Partnership Group (CPPG). The aim is to embed patient involvement and co-production into service development and improvement, and share best practice across the hospital and the region. The CPPG, with hospital staff, have worked to:

1) Recruit patient volunteers;
2) Develop a sustainable and strong working model for the CPPG;
3) Embed co-production as a concept of service development and improvement, including a patient voice at the strategic board level and a co-production video to raise staff awareness;
4) Initiate and contribute to service improvement and development projects.

A Co-Production Lead role was developed by the CPPG and Lead Cancer Nurse. The CPPG restructured into a two-tier membership to attract more volunteers. The CPPG now has a Committee of 15-20 patients who steer its work, and 30+ patient volunteers who get involved in project work.

Impact

Impact is measured through patient involvement in service improvement and development.
Examples:

- Patient Information: Inclusion of patient voices in design and review of all patient-related information.
- Patient Communication:
  - o 'Please write to me' initiative to encourage clinicians to write understandable clinic letters directly to patients and copy GPs;
  - o Introduction of patient buddy schemes;
  - o Initiative to ask patients what name they prefer to be called by;
  - o Creation of a guidance document for clinicians on communicating with patients regarding changes to treatment during the COVID-19 pandemic.
- Environment and Patient Flow: Involvement in the redesign of the Oncology Outpatients department and the design of the new Cambridge Cancer Research Hospital, at strategic and operational levels.
- Patient Feedback: Co-production of a Patient Reported Experience Measures (PREMs) survey for prostate cancer and a COVID survey to capture patients' views on changes to services as a result of COVID.

As the concept of co-production and its benefits embed, staff more actively seek and value the patient voice. They understand that patients are best placed to help improve the patient experience. Thus the CPPG is frequently called upon for involvement. The Group also works closely with other services within CUH and the local community to share its learning around co-production.

Critical success factors

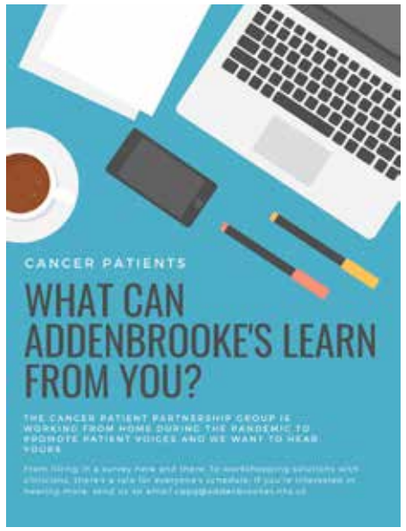
The CPPG is a model for strong patient involvement and co-production. Its success is based on:

- A strong, active Committee of 15-20 patients who steer the group's work. Members are engaged with and excited by the projects they are involved with. Everyone contributes and promotes co-production.
- Consistent, growing support from senior leadership within Cancer Services and the hospital, including regular contact with the Lead Cancer Nurse and a six-weekly meeting with the Cancer Services Operations Manager.
- Active participation in the hospital Cancer Board.
- A professional approach to communicating and working with patients and staff to ensure that co-production is seen as positive and beneficial to service design and improvement.
- Promotion of the group's work, both internally and externally, to recruit new members and raise staff awareness.
- Flexible group membership to suit volunteers' lives.
- Regular communication with volunteers to keep them engaged.
- Funding a Co-Production Lead.

Next steps

Next steps include:

- Oversee the Patient Advisory Group for the new Cambridge Cancer Research Hospital to ensure patient involvement in all aspects of its design and development;
- Complete and act on its Prostate Cancer PREMS work to ensure a patient-centred service;
- Analyse and share the results of its COVID Cancer Survey to ensure that any permanent changes to services meet patients' needs;
- Promote its 'Please write to me' initiative via a hospital-wide campaign using case studies and template letters;
- Provide guidance and feedback on patient information; including the development of a Patient Information Strategy;
- Promote its work internally and externally to showcase co-production and patient involvement.



Cancer Research UK Cambridge Centre

Programme Structure

Contact: ***Ken Seamon*** *- kenneth.seamon@cruk.cam.ac.uk*

Challenge which the practice addresses

Many Cancer Centres struggle to gain coherence in their organisational structures to integrate research and clinical care, and to maximise their opportunities. Comprehensive Cancer Centres with high volumes and breadth of research wish to preserve the 'bottom up' innovative power of research, and yet need to establish a clear structure to bring scientists into focused and resourced collaborations with clinicians and patients on more than an 'ad hoc' basis. Some centres attempt this by defining 'Themes' for both science and clinical excellence, but often these lack the organisational rigour or resource to be fully effective.

Solution

In the Cancer Research UK Cambridge Centre we established a Programme Structure in 2015. At that time we found through our individual membership register that there were approximately 600 scientific Group Leaders, PIs on clinical studies, and clinical consultants (surgeons, oncologists, radiologists, haemato-oncologists and pathologists) working wholly or partly on cancer. Each was asked to align themselves with one of the 12 programmes established (see Figure 1) – 8 disease-specific, and 4 discipline-focussed. Two leaders were chosen for each programme (one a scientist; one a clinician) and a full- or part-time Programme Manager was appointed to each programme to manage and facilitate projects and collaborations. Programme sizes in terms of membership range from 40 to around 80. Budgets are delegated to each programme to grow the programme – to be utilised mainly for staff salaries, consumables, and pump priming grants to be offered for innovation for two or more groups working together across departments. Performance of each programme is monitored by the Director of the Centre, and the Executive Committee (comprising all Programme Leads) -introducing constructive challenge on strategy and performance, academic output, and clinical impact.

Impact

The impact of the programme structure is measured each year in reports to Cancer Research UK and the University of Cambridge. Constructive advice and critique is also offered by the International Scientific Advisory Board which visits the Centre in depth every 2 years. A major quinquennial review is also performed by Cancer Research UK on the centre activities and output.

Whilst a counterfactual controlled trial covering 2015-2021 is impossible, the following are highlights of the outputs and impacts of the programmatic approach to integrated science and clinical care in Cambridge:

- Quantity and quality of academic research outputs grew from 500 primary papers [125 impact factor >10] in 2016/17; to >750 primary papers [235 impact factor >10] in 2020/21.
- Clinical Trials: the Centre has consistently been in the top 5 recruiting hospitals in the UK, enrolling more than 7,800 patients in 230 prospective interventional trials in 5 years (26% of new patients on average).
- Membership: has increased from 607 scientists and clinicians in 2016/17, to 1,059 in 2020/21.
- Grants: major grants won in Early Detection; Precision Medicine; 3-D tumour mapping.
- Early Detection: invention of the CytospongeTM and lab test to rapidly detect Barrett's Oesophagus as a non-invasive and cost-effective alternative to endoscopy (being rolled out as standard of care in the NHS).
- Staging: replacing surgery with endosonography as the first-line investigation for mediastinal lung cancer staging throughout the NHS, and changing NICE Guidelines.

Treatment: reducing side effects in breast cancer by giving partial breast radiotherapy to women with low-risk early stage cancer (NICE Guidelines changed).

Critical success factors

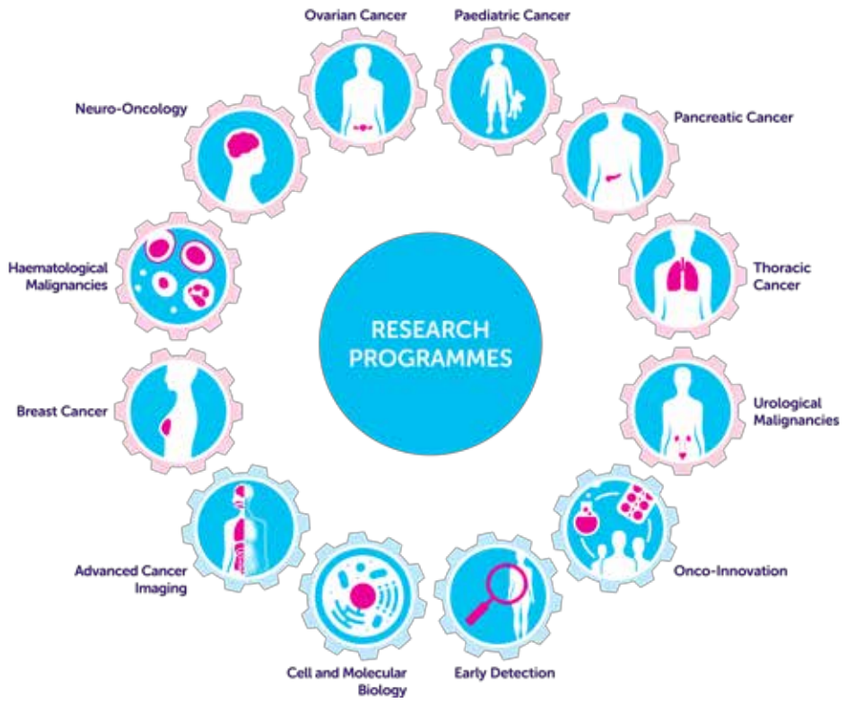
Critical success factors were:

- The appointment of Programme Managers to each programme (and in some cases, a part-time Communications Manager) was critical to organising the programmes, their collaborations, meetings, events, budgets, recruitments, and pump priming activities. The Programme Managers focus on process, enabling the programme members and Leads to focus on science and clinical excellence, and creating sustainability of the programmes and the centre – even through the Covid-19 epidemic.
- Having delegated budgets for each programme allows the programme to be more self-determining, rather than a top-down approach. This releases creativity within the programmes, and directs resources towards impactful investments.
- Regular reporting and accountability. Critical to this is the peer scrutiny and challenge of the strategy and outcomes within the Executive Committee and from the Centre Director.
- Incentivisation for growth. Programmes know that if their current activities maximise impact and attract more competitive funding, there is a possibility of forming virtual or physical institutes within the Centre structure.
- Inclusion of 34 University Departments, 8 Institutes (some outside the University (e.g. Wellcome Sanger)) 2 University Hospitals and industrial partners.

Next steps

Next steps include:

- Revision of the Programme Structure for 2022-27 to grow more programmes and institutes
- Quinquennial review of the present programmes by Cancer Research UK within the Major Centre Grant.
- Continued review and advice from the International Scientific Advisory Board.
- Building a Cancer Research Hospital to co-locate key scientific facilities with clinicians, triallists and patients to spur new innovations for patient benefit.



The OECI Quality map

Austria
- **Comprehensive Cancer Center Vienna**, Vienna

Belgium
- ★ **Institut Jules Bordet (IJB)**, Brussels
- ★ **AZ Groeninge**, Kortrijk
- • **Oncologisch Centrum UZBrussel**, Brussels
- • **Institut Roi Albert II Cliniques universitaires Saint-Luc**, Brussels

Chile
- ★ **Instituto Oncológico Fundación Arturo López Pérez (FALP)**, Santiago

Colombia
- • **Instituto Nacional de Cancerologia ESE**, Bogotà

Croatia
- • **Klinika za tumore Klinički bolnički centar Sestre milosrdnice**, Zagreb

Czech Republic
- ★ **Masarykův onkologický ústav**, Brno
- • **Fakultní nemocnice v Motole**, Prague
- • **Institut biostatistiky a analýz Lékařská fakulta Masarykovy univerzity**, Brno

Denmark
- ★ **Vejle Sygehus, Patienternes Kræftsygehus en del af Sygehus Lillebælt**, Vejle
- • **Kræftens Bekæmpelse Center for Kræftforskning**, Copenhagen

Estonia
- ★ **Sihtasutus Tartu Ülikooli Kliinikum**, Tartu
- • **North Estonia Medical Centre**, Tallin
- • **AS Ida-Tallinna Keskhaigla**, Tallin

Finland
- ★ **HUS Syöpäkeskus Helsingin Yliopistollinen Sairaala**, Helsinki
- ★ **TYKS Syöpäkeskus Turun Yliopistollinen Sairaala**, Turku
- ★ **TAYS Syöpäkeskus Tampereen Yliopistollinen Sairaala**, Tampere
- ★ **KYS Syövänhoitokeskus Kuopion Yliopistollinen Sairaala**, Kuopio
- ★ **OYS Oulun Yliopistollinen Sairaala**, Oulu

France
- ✹ **Association Toulousaine de Oncologie Publique (ATOP)**, Toulouse
- ★ **Centre Léon Bérard**, Lyon
- ★ **Institut Curie**, Paris
- ★ **Institut Paoli – Calmettes**, Marseille
- ★ **Institut Universitaire du Cancer de Toulouse-Oncopole**, Toulouse
- ★ **Centre François Baclesse**, Caen
- ★ **APHP-CARPEM Institute**, Paris
- ★ **Assistance Publique - Hôpitaux de Paris Institut Universitaire de Cancérologie APHP. Sorbonne Université**, Paris
- ★ **Institut de Cancérologie de l'Ouest (ICO)**, Angers - Saint Herblain
- ★ **Centre Henri Becquerel**, Rouen
- ★ **Centre de lutte contre le cancer Eugène Marquis**, Rennes
- • **Gustave Roussy**, Villejuif
- • **ICANS Institut de cancérologie Strasbourg Europe**, Strasbourg
- • **Centre Jean Perrin**, Clermont-Ferrand
- • **Institut du Cancer de Montpellier (ICM)**, Montpellier
- • **Institut Godinot**, Reims
- • **Centre de Lutte Contre le Cancer Georges-François Leclerc**, Dijon
- • **Cancer Institute AP-HP. Nord - Université Paris Cité**, Paris
- • **Institut Sainte Catherine**, Avignon

Germany
- • **Deutsches Krebsforschungszentrum (DKFZ)**, Heidelberg
- • **Nationales Centrum für Tumorerkrankungen Dresden NCT/UCC**, Dresden
- • **Charité Comprehensive Cancer Center**, Berlin
- • **Universitäres Centrum für Tumorerkrankungen (UCT)**, Frankfurt

Hungary
- ★ **Országos Onkológiai Intézet**, Budapest
- • **Országos Korányi TBC és Pulmonológiai Intézet**, Budapest

Ireland
- ★ **Trinity St. James's Cancer Institute**, Dublin
- ★ **Beaumont RCSI Cancer Centre**, Dublin
- ★ **Saolta University Cancer Network, Galway University Hospitals**, Galway

Italy
- ★ **Centro di Riferimento Oncologico di Aviano (CRO), IRCCS**, Aviano
- ★ **IRCCS Ospedale Policlinico San Martino**, Genova
- ★ **Istituto Europeo di Oncologia**, Milano
- ★ **Fondazione IRCCS - Istituto Nazionale dei Tumori**, Milano
- ★ **Istituto Nazionale Tumori Regina Elena**, Roma
- ★ **Istituto Oncologico Veneto IRCCS-IOV**, Padova
- ★ **IRCCS Istituto Clinico Humanitas**, Rozzano (Milano)
- ★ **Istituto Nazionale Tumori IRCCS "Fondazione G.Pascale" (INT-Pascale)**, Napoli
- ★ **Azienda Unità Sanitaria Locale di Reggio Emilia - IRCCS Istituto in Tecnologie Avanzate e Modelli Assistenziali in Oncologia**, Reggio Emilia
- ★ **Istituto di Candiolo FPO-IRCCS**, Candiolo (Torino)
- ★ **Istituto Tumori Giovanni Paolo II, Istituto di Ricovero e Cura a Carattere Scientifico**, Bari
- ★ **IRCCS, Centro di Riferimento Oncologico della Basilicata (CROB)**, Rionero in Vulture (Potenza)
- ★ **Ospedale San Raffaele (OSR)**, Milano
- ★ **Istituto Oncologico del Mediterraneo s.p.a. (IOM)**, Viagrande (Catania)
- ★ **IRCCS Ospedale Sacro Cuore Don Calabria**, Negrar di Valpolicella (Verona)
- • **IFOM ETS – the AIRC Institute of Molecular Oncology**, Milano
- • **IRCCS Istituto Romagnolo per lo Studio dei Tumori «Dino Amadori» - IRST s.r.l.**, Meldola (Forlì-Cesena)
- • **Fondazione Policlinico Universitario Agostino Gemelli IRCCS**, Roma
- • **IRCCS - Istituto di Ricerche Farmacologiche Mario Negri**, Milano
- • **Istituto Dermatologico San Gallicano**, Roma
- • **Fondazione I.R.C.C.S. Policlinico San Matteo**, Pavia

Jordan
- • **King Hussein Cancer Center**, Amman

Lithuania
- ★ **National Cancer Institute**, Vilnius

Norway
- ★ **Oslo Universitetssykehus (OUS)**, Oslo

Poland
- • **Maria Sklodowska-Curie National Research Institute of Oncology**, Warsaw
- • **Wielkopolskie Centrum Onkologii**, Poznań

Portugal
- ★ **Instituto Português de Oncologia do Porto Francisco Gentil, E.P.E. (IPO-Porto)**, Porto
- ★ **Instituto Português de Oncologia de Lisboa Francisco Gentil, E.P.E. (IPO-Lisboa)**, Lisbon
- ★ **Instituto Português de Oncologia de Coimbra Francisco Gentil, E.P.E. (IPO-Coimbra)**, Coimbra

Romania
- ★ **The "Prof. Dr. Ion Chiricuta" Institute of Oncology (IOCN)**, Cluj-Napoca
- • **SC RTC Radiology Therapeutic Center Amethyst Radiotherapy**, Otopeni

Russia Federation
- • **Tatarstan Cancer Center "TCC"**, Kazan
- • **N.N. Blokhin Russian Cancer Research Centre**, Moscow
- • **National Medical Research Radiological Centre (NMRRC)**, Moscow

Serbia
- • **Oncology Institute of Vojvodina**, Sremska Kamenica

Slovakia
- • **Biomedicínske centrum Slovenskej akadémie vied**, Bratislava

Slovenia
- ★ **Onkološki Inštitut Ljubljana**, Ljubljana

Spain
- ★ **Fundación Instituto Valenciano de Oncología IVO**, Valencia
- ★ **Vall d'Hebron Barcelona Campus Hospitalari**, Barcelona
- • **Institut Català d'Oncologia ICO**, L'Hospitalet de Llobregat (Barcelona)

Sweden
- ★ **Karolinska Institute and University Hospital**, Stockholm
- ★ **Skånes Universitetssjukhus**, Lund
- ★ **Sahlgrenska University Hospital**, Göteborg
- • **Uppsala University Hospital**, Uppsala
- • **Norrlands Universitetssjukhus**, Umeå

Switzerland
- • **Comprehensive Cancer Center Zürich (CCCZ)**, Zürich

Tanzania
- • **The Aga Khan Hospital, Dar es Salaam**, Dar es Salaam

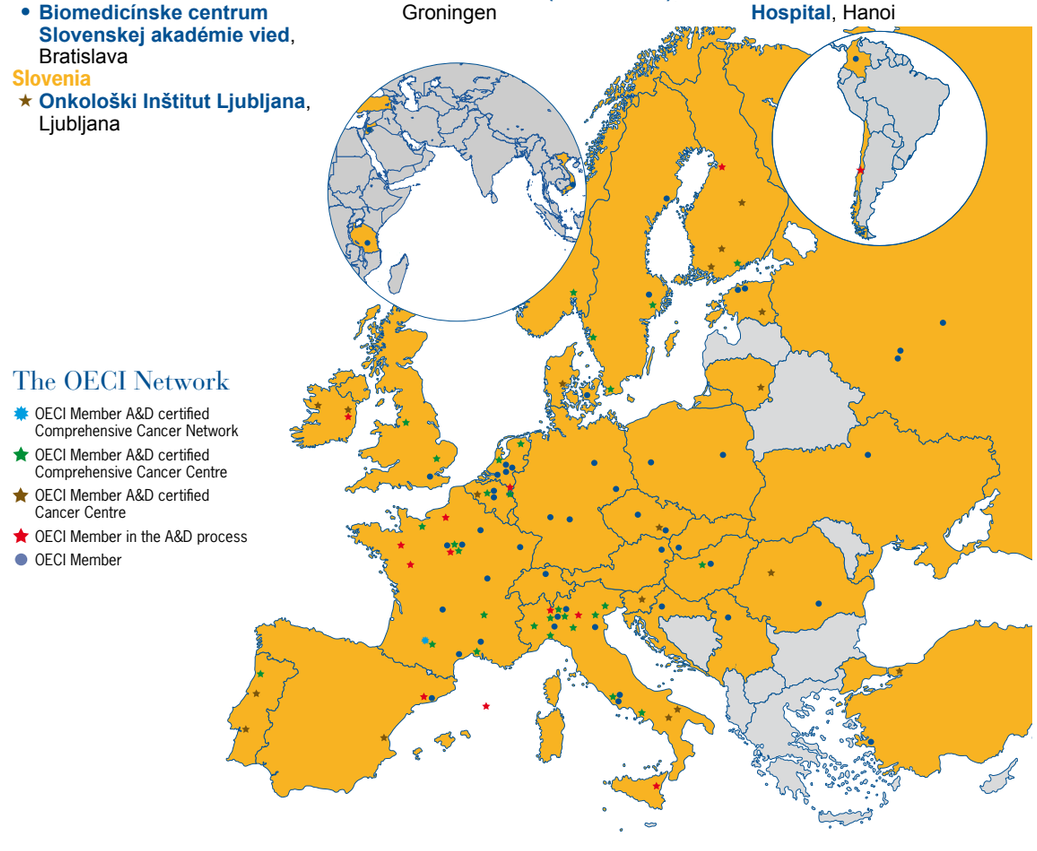
The Netherlands
- ★ **Netherlands Cancer Institute**, Amsterdam
- ★ **Maastricht University Medical Centre+**, Maastricht
- ★ **University Medical Center Groningen Comprehensive Cancer Center (UMCG-CCC)**, Groningen
- ★ **OncoZON Cancer Network**, Maastricht
- • **Erasmus MC Cancer Institute**, Rotterdam
- • **IKNL Integraal Kankercentrum Nederland**, Utrecht
- • **Radboudumc Centrum voor Oncologie**, Nijmegen
- • **Rijnstate**, Arnhem

Turkey
- ★ **Anadolu Sağlık Merkezi**, Kocaeli
- • **Dokuz Eylül Üniversitesi Onkoloji Enstitüsü**, Izmir

Ukraine
- • **RE Kavetsky Institute of Experimental Pathology, Oncology and Radiobiology of National Academy of Sciences of Ukraine (IEPOR)**, Kyiv

United Kingdom
- ★ **The Christie NHS Foundation Trust**, Manchester
- ★ **Cancer Research UK Cambridge Centre**, Cambridge
- • **King's Health Partners Integrated Cancer Centre**, London

Viet Nam
- • **Bệnh viện K Viet Nam National Cancer Hospital**, Hanoi



Appendix 1

The A&D Board

The A&D Board, chaired by Jean-Benoît Burrion, is responsible for the decision-making on Accreditation and Designation procedures and policies. Furthermore, the A&D Board decides on the important steps in the programme, e.g. approval application, preliminary designation, decision go / no go peer review, certification and designation.

Jean Benoit Burrion
A&D Board Chair
Institut Jules Bordet, Brussels, Belgium

Paolo de Paoli
General Manager
Alleanza contro il Cancro, Rome, Italy

Peter Nagy
Scientific Director
National Institute of Oncology, Budapest, Hungary

Wim van Harten
Board Director
Rijnstate, Arnhem, The Netherlands

Eva Jolly-Gustafsson
Head of Patient Care Unit Radiotherapy, Karolinska University Hospital, Theme Cancer, Stockholm, Sweden

Gunnar Saeter
Former Head of Research, Division of Cancer Medicine, Oslo University Hospital, Oslo, Norway

Mef Nilbert
Professor of Oncology, Senior Consultant Institute of Clinical Sciences, Division of Oncology, Lund University, Skane University Hospital Cancer Center, Lund, Sweden

Jozsef Lövey
Chair of Accreditation Committee
Invited member to the A&D Board
National Institut of Oncology, Budapest, Hungary

Learn more at:
https://www.oeci.eu/Accreditation/AD_Board.aspx?type=BOARD

Appendix 2

The A&D Committee

To increase the independent examination of essential steps in the A&D Process, the A&D Board will be advised by the Accreditation Committee, chaired by Jozsef Lövey. The AC will submit its conclusions on the essential steps to the A&D Board as input for final decisions.

József Lövey
Chair
Medical director, radiation oncologist and medical oncologist, National Institute of Oncology, Budapest, Hungary

Irène Philip
Former quality manager and onco-hematologist, Centre Léon Bérard, Lyon, France

Marek Svoboda
Director Masaryk Memorial Cancer Institute and medical oncologist, Masaryk Memorial Cancer Institute Brno, Czech Republic

Jorrit Enserink
Professor and research group leader, Oslo University Hospital CCC, Oslo, Norway

Mari-Leen Pärn
Quality manager,
Tartu University Hospital,
Tartu, Estonia

Patricia Doherty
Senior cancer programme manager, Trinity St. James's Cancer Institute, Trinity College, Dublin, Ireland

David Verger
Quality and risk director,
Institute Universitaire du Cancer Toulouse Oncopole
Toulouse, France

Appendix 3

The A&D Coordination Team

The A&D co-ordinators play an important role throughout the whole process of the A&D programme from the Application by the centre until the approval of the final report and improvement action plan by the OECI A&D Board and the one-year follow-up.

Simon Oberst
Director of Quality and Accreditation
Organisation of European Cancer Institutes
Brussels, Belgium

Harriët Blaauwgeers
A&D Coordination Manager
Netherlands Comprehensive Cancer Organisation,
IKNL, the Netherlands

Heidi Van Doorne
Co-ordinator
Netherlands Comprehensive Cancer Organisation, IKNL, the Netherlands

Jolanda van Hoeve
Co-ordinator
Netherlands Comprehensive Cancer Organisation,
IKNL, the Netherlands

Willien Westerhuis
Co-ordinator
Netherlands Comprehensive Cancer Organisation,
IKNL, the Netherlands

Marjet Doctor
Co-ordinator
Netherlands Comprehensive Cancer Organisation,
IKNL, the Netherlands

Kelly O'Reilly
Secretary
Cancer Research UK Cambridge Institute, Cambridge,
United Kingdom

Sylvia Blommestein
Secretary
Netherlands Comprehensive Cancer Organisation,
IKNL, The Netherlands

Roxana Plesoianu
Communication & Engagement Manager
SOS Europe Srl - OECI Central Office, Brussels, Belgium

Appendix 4

How to Participate to the OECI A&D Programme

General Conditions

Applying to the OECI A&D Programme is a voluntary decision of a cancer centre. However, there are a number of criteria that a centre should meet:

- The cancer centre / institute should be an OECI Member or in process of becoming one
- Strong commitment to quality improvement
- Dedicated staff (contact person, project group, all involved employees)
- Stable management structure (no interim management)
- No major changes/issues (expected management change, merger, housing movements, financial crisis)
- Following the steps of the A&D programme with care and within the required timeline
- Involvement in oncology research and education programmes.
- Provision of oncology surgery, radiation therapy and medical oncology,
- Cancer care is performed in an identifiable unit with an identifiable budget, management and organisational structure.

10 Steps to get accredited with us

A cancer centre / institute that wishes to become OECI accredited should contact the OECI A&D team, which will assist in the process.

STEP 1: The cancer centre / institute completes an application form in the e-tool (oeci.exata.nl) where all questionnaires are available in a secured environment
STEP 2: Application approval & Payment Fee - Stage 1
STEP 3: Preliminary designation screening process
STEP 4: Self-assessment according to Quality Standards & Quantitative Questionnaire in the e-tool (~.6 months)
STEP 5: A&D Board and A&D Committee review Self Assessment. A Go-decision is made when the centre / institute is ready for a 2-day on-site peer review
STEP 6: Payment fee stage 2
STEP 7: Peer review and designation assessment (3 months after finishing the self-assessment)
STEP 8: Reporting with strengths & recommendations (1 month after the peer review). Improvement plan (2 months after the peer review)
STEP 9: Accreditation and Designation Certificate
STEP 10: Follow-up (1 year)

The whole process from Application to Certification lasts about 18 months. The certificate is valid for five years.

For more information on how to become an OECI Full or Associate Member, please contact the ***OECI Liaison Office at oeci@oeci.eu***

For enquiries relating to the A&D Certification Programme, please contact **Harriet Blaauwgeers** at **oeci@iknl.nl**

OECI-EEIG
c/o Fondation Universitaire
11, Rue d'Egmont
B-1000, Brussels, Belgium
Phone: +32 2 512 0146

www.oeci.eu
For membership contact:
oeci@oeci.eu