



Task 4.3 Patient Pathway Adaptation and Implementation Support in Pilot CCCNs

Author(s):	Dr. Peggy Richter, Emily Hickmann, Hannes Schlieter (TUD Dresden University of Technology)
Contributor(s):	Amélie Gaignaux, Kathy Jaworski (Institut National Du Cancer, Luxembourg), WP6 Patient Pathway Working Group
Work Package:	WP6, Task 4 - Enhancing patient centeredness in CCCNs with patient pathways
Date:	28.08.2024





Table of Contents

Table of Contents	2
Project Information	3
Abbreviations and Acronyms	4
Executive Summary	5
1 Background and Objective	6
2 Methodology: Pathway Implementation in the Pilot Sites	7
2.1 Pathway Adaptation Process	7
2.2 Implementation Support	7
3 Pathway Adaptation and Implementation in Pilot Sites	8
4 Conclusion	12





Project Information

Project Full Title:	Network of Comprehensive Cancer Centres: Preparatory activities on creation of National Comprehensive Cancer Centres and EU Networking
Project Acronym:	CraNE
Project N°:	101075284
Call:	EU4H-2021-JA-IBA
Topic:	EU4H-2021-JA-03
Starting Date:	01 October 2022
Duration:	24 months
Coordinator:	NIJ-NACIONALNI INSTITUT ZA JAVNO ZDRAVJE-Slovenia





Abbreviations and Acronyms

CCC	Comprehensive Cancer Centre
CCCN	Comprehensive Cancer Care Network
EC	European Commission
EU	European Union
IPAAC	Innovative Partnership for Action Against Cancer
WP	Work Package





Executive Summary

This report details the activities and outcomes of Subtask 4.3, which focused on the adaptation and implementation of a lung cancer patient pathway within Comprehensive Cancer Care Networks (CCCNs) in the Poland and Luxembourg pilot sites. Building on the foundation established in Subtasks 4.1 and 4.2, a comprehensive patient pathway template was developed to enhance patient-centered care, guiding patients through various phases of their cancer journey, including CCCN entry, staging diagnostics, treatment planning, treatment, follow-up, and end-of-life care.

The objective of Subtask 4.3 was to support the pilot sites in customizing and implementing this generic pathway template, ensuring that it was tailored to the specific needs and contexts of the national, regional, and local specifics. The process involved close collaboration with multidisciplinary teams and patient representatives, iterative feedback loops, and the integration of patient-centered tools and practices.

Implementation support was provided through workshops at both pilot sites, focusing on the pathway's contents and structure. The workshops emphasized the importance of multidisciplinary collaboration and continuous quality improvement. Additionally, the iPa²-Guide, a resource from the previous Joint Action iPAAC, was provided to guide the design, adaptation, and implementation processes. The pilot sites opted for an initial organizational implementation as a first step toward deeper, digital integration of the pathways.

Both pilot sites successfully implemented the adapted lung cancer patient pathways, leading to their certification as CCCNs. Continuous improvement mechanisms were established to ensure the pathways remained effective and aligned with the latest clinical evidence and patient feedback.

The outcomes of Subtask 4.3 demonstrate the effectiveness of a structured, patient-centered approach in improving cancer care delivery. The successful implementations in Poland and Luxembourg serve as models for other CCCNs across Europe, highlighting the importance of collaborative processes and ongoing refinement in achieving high standards of patient-centered care.





1 Background and Objective

The foundation for Subtask 4.3 was laid with the Subtasks 4.1 and 4.2, where a comprehensive lung cancer patient pathway template was developed to enhance patient-centered care within Comprehensive Cancer Care Networks (CCCNs). This template was designed to guide the patient journey across various phases, including CCCN entry, staging diagnostics, treatment planning, treatment, follow-up, and end-of-life care. The pathway was structured to incorporate patient-centered practices, which were identified through systematic literature reviews, workshops with patient representatives, and feedback from healthcare professionals.

During Task 4.2, significant emphasis was placed on defining patient-centeredness within the CCCN framework. A consensus was achieved among stakeholders, resulting in a model of patient-centeredness that encompasses multiple dimensions, such as engaging patients in their care, ensuring holistic support, and fostering shared decision-making. These principles were integrated into the lung cancer patient pathway to ensure that care delivery is truly focused on the needs and preferences of the patients.

Building on the foundation established in the previous subtasks, the primary objective of Subtask 4.3 was to support pilot CCCNs in adapting and implementing the lung cancer patient pathway template. This involved:

- Customizing the generic pathway template to fit the specific needs and contexts of the pilot sites.
- Integrating patient-centered tools and practices identified in Task 4.2.
- Providing implementation support to ensure the pathways were effectively adopted and operationalized within the pilot sites.





2 Methodology: Pathway Implementation in the Pilot Sites

2.1 Pathway Adaptation Process

The adaptation process involved close collaboration with the pilot sites in Poland (Lower Silesian Oncology Center, LSOPH) and Luxembourg (Institut National du Cancer, INC). The existing lung cancer patient pathway template was reviewed and modified to address local needs, considering the specific healthcare infrastructure, patient population, and available resources. The adaptation process was iterative, involving multiple rounds of feedback from multidisciplinary teams and patient representatives.

2.2 Implementation Support

Implementation support was provided through a series of workshops at the pilot sites. These workshops focused on explaining the contents and structure of the lung cancer patient pathway to healthcare professionals. They covered each phase of the pathway, highlighting key patient-centered practices and the roles of various healthcare providers. The workshops also emphasized the importance of multidisciplinary collaboration and continuous quality improvement in patient care.

An essential resource provided to the pilot sites was the iPa²-Guide, developed during the previous Joint Action iPAAC¹. This guide offered a structured approach to designing, adapting, and implementing patient pathways. It included detailed instructions on how to integrate patient-centered practices, ensure compliance with local regulations, and achieve the desired levels of pathway maturity. The guide served as a foundational tool for the pilot sites, helping them navigate the complexities of pathway implementation and with the decision on the level of implementation. For now, the pilot sites decided for an organizational implementation as a first step towards deeper, digital pathway implementation.

¹ iPAAC Patient Pathway Guide for the Development of Generic Patient Pathway Templates and Their Implementation in Comprehensive Cancer Care Networks, URL: <https://www.ipaac.eu/res/file/outputs/wp10/patient-pathway-guide.pdf> (Accessed: 28th August 2024)





3 Pathway Adaptation and Implementation in Pilot Sites

The pathway adaptation and implementation support were conducted in the two pilot sites in Poland and Luxembourg. Key activities in the pilot sites included:

- **Pathway Integration:** Embedding the lung cancer patient pathway into the existing organizational structure, which includes various specialized cancer treatment units and multidisciplinary teams (MDTs). Regular quality circles were established to review pathway adherence and identify areas for improvement.
- **Network Coordination:** Establishing a formal cooperation agreement between the institutions to ensure seamless care coordination. This included the development of common standard operating procedures (SOPs) for key activities such as tumor documentation and joint tumor boards.
- **Patient-Centered Care:** Emphasizing shared decision-making and enhanced communication strategies. The center worked on ensuring that all patients were actively involved in their care decisions and that they received clear, comprehensive information about their treatment options.
- **Patient-Centered Tools:** Implementing shared decision-making aids and patient-centered reporting systems to ensure that patients were fully informed and engaged throughout their care journey.

In Luxembourg, the adaptation and implementation of the lung cancer patient pathway within the Comprehensive Cancer Care Network (CCCN) was a detailed and iterative process. The initiative was led by the Institut National du Cancer (INC), which coordinated efforts across multiple healthcare institutions including patient representatives to ensure a seamless and patient-centered approach to lung cancer care. The steps involved the following:

1. Pathway Preparation and Modelling

The process began with the preparation of patient pathways for lung cancer and other tumoral entities (such as breast and prostate cancer), using the Modelling Tool provided by TUD Dresden University of Technology. The pathways were printed in large formats (A1 and A3) to facilitate detailed reviews during meetings.

2. Stakeholder Engagement and Working Group Meetings

The adaptation involved multiple working group meetings that brought together a range of stakeholders, including medical professionals, pathway designers, and patient representatives:





- **First Meeting (27th March 2024):** The initial meeting focused on reviewing the entire lung cancer pathway template provided in CraNE and reviewing the pathway subprocess. Working group stakeholders added actors, interfaces to the national cancer registry, and revised quality indicators from the screening to the treatment phase of the lung cancer patient pathway – making the pathway specific for the Luxembourg case.
- **Second Meeting (8th May 2024):** This session continued the review process, covering phases from post-therapeutic tumor board meetings to the end of CCCN care – again, adding actors, interfaces to the national cancer registry, and revising quality indicators along the steps of these pathway phases. The entire pathway was comprehensively revised to ensure that all steps were aligned with local needs and regulatory requirements. For an example of pathway adaptations see **Figure 1**.
- **Patient Involvement Workshop (19th April 2024):** A critical component of the adaptation process was the involvement of patients. Two sessions were organized, one in French and one in English, where a total of 11 patients participated. These workshops were instrumental in gathering patient feedback, ensuring that the pathway reflected patient perspectives and addressed their concerns along the phases and steps of the patient pathway. Therefore, the workshops were structured as follows:
 - **Introduction:** In this part of the workshops, an overview of the patient pathway for lung cancer patients was given, its use for patients and doctors was explained, how the pathway looks like in practice was shown, and its role in guiding patients through their journey was emphasized.
 - **Individual work:** Patients were asked to complete a story board pathway and reflect on their own personal experiences at different stages of the cancer pathway – answering questions like “What was useful?” or “What was missing?”
 - **Group discussion:** Group discussions among the patients were facilitated. During this, active listening, empathy and support were promoted. With this, very deep insights from the patients were collected and summarized in a table and implemented in the Luxembourg lung cancer patient pathway.

The insights gained from the patient workshop were utilized to enhance the patient pathway model with patient perspective requirements documented for each phase based on these insights (see **Figure 2**).





3. Implementation and Continuous Improvement

Following these workshops, the lung cancer patient pathway was finalized and implemented across the participating institutions. The process did not end with the initial implementation. Continuous improvement mechanisms were established to ensure that the pathway remained relevant and effective in delivering patient-centered care. This included ongoing revisions based on new clinical evidence and patient feedback, as well as regular audits to assess pathway adherence and performance.

4. Integration with National Standards

Throughout the process, the lung cancer patient pathway was aligned with national guidelines and regulations. This ensured that the pathway not only met the specific needs of Luxembourg's healthcare system but also adhered to recommendations of the national recommendations for lung cancer patients.

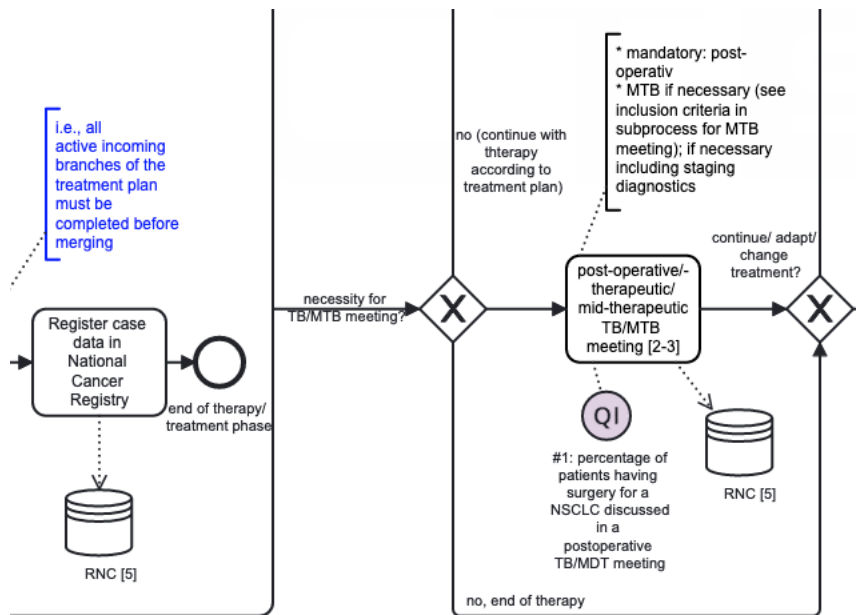


Figure 1. Example for the integration of interfaces to the National Cancer Registry in Luxembourg along the lung cancer patient pathway activities

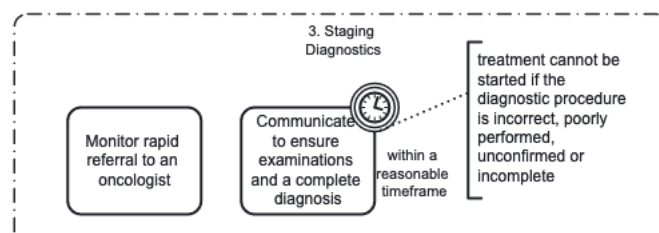


Figure 2. Example for the integration of the patient perspective in the lung cancer patient pathway in Luxembourg





In summary, the successful adaptation and implementation of the lung cancer patient pathway in Luxembourg as well as in Poland serves as a model for other CCCNs aiming to enhance patient-centered care through structured and collaborative processes. Both pilot sites successfully implemented the adapted lung cancer patient pathways and were subsequently certified as CCCNs.





4 Conclusion

The successful adaptation and implementation of the lung cancer patient pathway template in Luxembourg and Poland underscore the importance of a structured, patient-centered approach within Comprehensive Cancer Care Networks (CCCNs). Building on the foundational work from previous subtasks, Subtask 4.3 effectively customized and operationalized a generic pathway template for lung cancer patient care in CCCNs to meet the specific needs of the pilot sites. This process involved close collaboration with multidisciplinary teams, extensive patient involvement, and adherence to local and national standards.

The experiences in Luxembourg and Poland demonstrate the effectiveness of integrating patient-centered practices into care delivery, supported by tools such as the iPa²-Guide and continuous stakeholder engagement. The iterative adaptation process, combined with thorough implementation support, ensured that the pathways were not only tailored to local contexts but also aligned with the overarching goals of patient-centered care.

Both pilot sites successfully achieved certification as CCCNs, setting a benchmark for other networks in Europe. The continuous improvement mechanisms established as part of the implementation process will help maintain the relevance and effectiveness of the pathways, ensuring sustained benefits for patients. The outcomes of Subtask 4.3 provide valuable insights and a replicable model for enhancing patient-centered care across other CCCNs, reinforcing the critical role of structured, collaborative approaches in improving cancer care processes and outcomes.

