CASE STUDY

Transforming lung cancer care delivery at Northern Health with a PROMs-based digital care pathway

Northern Health



THE SETTING

At Northern Health, the major provider for healthcare services in Melbourne's rapidly growing outer north, Dr. Katharine See has set up the Lung Mass Clinic, a cancer service committed to delivering the highest quality of care to its patients and community.



THE VISION

A core pillar of the service is a personalised, value-based approach to care aimed at improving the health outcomes that matter most to patients.

To champion this approach at the Lung Mass Clinic, Katharine and her team partnered with The Clinician to develop a digital care pathway that would enable the systematic collection and analysis of the outcomes that matter most to patients, using patient-reported outcome measures (PROMs).

Learn more about their journey in this case study...



Redefining Quality with Patient Reported Outcome Measures

Northern Health reports data to the Victorian Lung Cancer Registry, a clinical quality registry that collects outcomes from lung cancer services across the state. The outcomes collected by the registry include clinical results and process measures such as timeliness of care, which are used to evaluate and benchmark care quality and safety.

While these measures are important, they lack one critical element: the voice of the patient.

We report to the Victorian Lung Cancer Registry and based on that data, it looked as though we were doing a good job. But they are all process measures...we had no way of knowing if we were actually delivering the outcomes that mattered most to our patients.

Dr. Katharine See - Director of Respiratory Medicine

To address this gap, the Lung Mass Clinic team set out to design and implement a digital patient journey for routinely capturing and analysing patient reported outcome measures (PROMs).

Defining what outcomes to measure and when with ICHOM

In defining the patient pathway, including what PROMs to measure and at what time points, Northern Health looked to existing international standards.

The validated lung cancer patient-centred outcomes set from ICHOM was selected as this standard.

The ICHOM set was developed by physicians, measurement experts and patients to define what outcomes matter most.

The recommended PROMs include the cancer-specific EORTC-QLQ-C30 and EORTC-QLQ-L13, with Northern Health adding a patient activation measure to assess patient self-management.



ICHOM Outcome Domains for Lung Cancer Set





Finding the right digital implementation partner

To streamline the collection and analysis of data, the Lung Mass Clinic team knew they needed a partner with the right platform and experience to co-design and configure the pathway.

They defined a number of critical capabilities, requiring the platform to be:

Interoperable - reducing burden for clinician participation and data utilisation by integrating the platform with the patient administration system and outpatient record.

Accessible and multilingual - multiple entry points for patient access (SMS, Email, QR code) on their own devices and the ability to complete PROMs in their own language.

Able to provide real-time data visualisations - supporting clinicians with clear and actionable PROMs analytics to inform real-time care decisions.

To deliver the pathway, Northern Health partnered with The Clinician, a healthcare company and ICHOM partner with a specialised platform for PROMs and digital pathways.

Co-designing the digital pathway with consumers and clinicians

To co-design a fit-for-purpose digital pathway, stakeholder steering groups were established.

Clinical Steering Committee

Clinical representatives from key disciplines: respiratory, thoracic surgery, medical and radiation oncology were involved in designing the PROMs pathway and visualisations.

Consumer Steering Committee

A consumer group of 6 patients representing different treatment experiences, demographic backgrounds and cultures provided critical insight into usability of the pathway.

The Clinician were a key partner in the co-design process, listening to the needs of clinicians and consumers and reflecting those needs in the digital pathway configured within the platform.



Finding a vendor who was happy to listen to people with lived experience was really important for us and The Clinician actually did that beautifully.

Tracey Webster - Director of Clinical Leadership Effectiveness & Outcomes

With support from AstraZeneca, Northern Health and The Clinician launched the pathway in 2023.





How does the digital care pathway work?

The digital pathway was configured within The Clinician's health platform, ZEDOC, to automate the distribution, collection and analysis of PROMs data, as per the process below:

- 1 All consenting patients not in end of life care are automatically enrolled in the pathway via integration.
- Patients are sent personalised Emails/SMSs inviting them to watch a welcome video (Day 1) and shared decision making video (Day 7) via Clinician's web-based patient app (accessible on their own devices, at home).
- 3 At Day 14, patients are invited to complete their baseline PROMs (7 assessments) in their preferred language.
- 4 Patients are allocated to a treatment-specific track and complete PROMs at 3m, 6m, 9m, 1yr and then annually.
- 5 PROMs analytics are available to clinicians within ZEDOC's provider portal and the outpatient medical record.

How are PROMs being used to enhance care delivery?

Holistic, Personalised Care

Clinicians are using real-time PROMs reports available in the outpatient medical record during consultations with patients, personalising and tailoring care for each individual.

It is not unusual for our patients to ignore or forget to tell us a symptom which they believe is unimportant but is actually consequential to delivering high quality holistic care. The digital care pathway gives me an overview of how my patient actually feels. - Dr. Bibhusal Thapa, Thoracic Surgeon

Data-driven Quality Improvement

Each quarter, PROMs data is reviewed in the lung tumour stream quality and safety meeting to identify gaps in care and facilitate improvement initiatives based on that data.

We can identify gaps in the service and look at how we can reallocate our resources to actually meet the needs of the patients...that's really powerful to be able to have the data to show what needs to happen to improve the service. - Dr. Katharine See, Director of Respiratory Medicine

What are patients saying about the pathway?

From being told I had Lung Cancer to surgery was such a whirlwind, the digital care pathway is "Awesome", easy to complete and discussed in my surgical follow up last week. I feel like since I left hospital my care continues - Michelle

The treatment and care I got was great. It was not a hassle to do it and it made me think about what was happening - **Ann**



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The Results

>90%
 patient response rate

+6 point increase in activation

95% patient satisfaction

90% clinician satisfaction

...the information that you get is so powerful, I think it's completely practice changing.

- Dr. Katharine See

Achieving 90% patient response rates

Northern Health has seen a remarkable response from patients in their engagement with the pathway, which they put down to a few key factors:

Personalised 15 minute onboarding session with the lung mass nurse

This provides patients with an in-person interaction to understand the pathway and it value.

Embedding educational video content into the pathway

Welcome and shared decision making videos sent before the first set of PROMs educates patients about participating and personalises their experience.

Involving family and carers in the pathway

Discussions about the pathway always include family and support people.

Clinicians using PROMs data in consultations with patients

Patients can see clinicians using their responses to personalise their care

Investing in the future of care delivery

The digital care pathway represents a key strategic investment in improving lung cancer outcomes for the Northern Health community. Following its success, we're now looking at how we can scale this across the organisation. - **Siva Sivarajah**, **Chief Executive**,

Northern Health



