

Advancing the use of patient pathway data

Project lead and organisation - Suki Hothi – RFL

Partner organisation(s) involved - CogStack & Kings College London

Funding requested (£) - £150K - £250K (TBC)

Proposed start and end dates - August 2026 – March 2029

Summary

This bid proposes improving cancer care by enabling a comprehensive, longitudinal view of patient pathways across North Central London (NCL). The core challenge is that current data systems are fragmented and siloed, providing only partial insights into a patient’s journey. There is no consistent way to link data across referral, diagnosis, treatment, and follow-up, limiting the ability to analyse performance, identify delays, or understand the true cost of care pathways. The project will implement the CogStack clinical intelligence platform to assign a unique identifier to each patient pathway, enabling integration of structured and unstructured data into a single, cohesive view. This will allow advanced analytics and AI techniques to extract meaningful insights from clinical data, including information currently buried in free-text records. Delivery will follow a phased approach, starting with proof of concept in a specific tumour pathway and scaling to include treatment and follow-up stages.

Expected benefits include improved identification of delays, variation, and inequalities across pathways, as well as the ability to accurately cost care and evaluate service changes. This will support more informed decision-making and better resource allocation.

NCLCA Big Ideas Fund – Expression of Interest

Section 1 – Project Details			
Proposal title	Advancing the use of patient pathway data	Project lead and organisation	Suki Hothi – RFL
Partner organisation(s) involved	CogStack & Kings College London	Funding requested (£)*	£190K (estimated)
Proposed start and end dates*	August 2026 – March 2029		

Submit by 25 June 2026. Only NCLCA colleagues may submit.

Section 2 – The Idea	
1. What is the challenge you are seeking to address?*	<p>The core challenge we are seeking to address is the difficulty of representing longitudinal patient journeys using existing data and analytical methods.</p> <p>Existing databases provide a siloed view of the interactions with healthcare services for a patient. Often only surfacing a single step of their pathway. This challenge is compounded by the lack of a unique identifier for each patient pathway.</p> <p>Consequently, the ability to join data across separate systems to provide an accurate and complete view of a patient’s journey from presentation, through to diagnosis, treatment and follow-up does not exist. The real-world evidence and manifestation of this can be seen in NCL where accurate analytics based on whole patient journeys at scale is not commonplace, and as a result we cannot, for example, easily identify and understand the actual cost of delivering a cancer pathway from referral to follow-up to support prioritising how we spend.</p>
2. What is your proposed project and – at a high level – how would it be delivered?	<p>We propose implementing CogStack’s clinical intelligence platform to assign a unique, pathway-level identifier to each cancer patient pathway to overcome the limitations of current data silos. The platform already has significant governance approval for Cancer use cases at RFL, having been leveraged to improve Cancer Outcomes and Services Data (COSD) submission completeness at RFL and has the potential to be deployed system wide.</p> <p>The project will be delivered through a phased, milestone-based approach. We will leverage existing CogStack infrastructure, with further data sets identified to ingest both structured and unstructured clinical data to create a connected, longitudinal view of the patient journey.</p> <p>CogStack technology allows the deployment and fine-tuning of advanced data processing and AI technology to unify and structure free-text data unlocking its full value. For example, ‘lost-to-follow-up’ indicators, only present in clinical narratives, can be extracted at scale and ‘attached’ to a pathway view. Similar work has already been developed at UCLH with their CogStack deployment</p>
Section 3 – Impact & Strategic Alignment	
3. Which NCL strategic objectives and/or National Cancer Plan ambitions does your project align with?	<p><u>NCL Strategic Objectives</u></p> <p>SO3a. Deliver and sustain compliance with the 62-day standard by 2028, and 28 day standard by March 2024, with continuous improvement up to then.</p> <p>SO3b. Reduce variation in clinical practice across the whole pathway.</p> <p>SO4a. Continually reduce inequalities across the whole cancer pathway until services are on par across our population.</p> <p><u>National Cancer Plan</u></p> <ul style="list-style-type: none"> - Driving up NHS cancer performance to meet all cancer waiting time standards by 2029.

	- A global leader in cancer outcomes by 2035.
4. What impact do you expect the project to have on NCL cancer outcomes and/or patient experience?	<p>This project will improve RFL’s ability to understand and analyse complete cancer patient journeys, providing more timely and actionable intelligence to support service improvement.</p> <p>Specifically the project will enable the trust to:-</p> <ul style="list-style-type: none"> • identify unwarranted variation, longstanding and emerging pathway delays, and inequalities more effectively • allow the ability to cost patient pathway’s to support spending review and investment initiatives • evaluate the impact of change and transformation initiatives with greater confidence; and • support reductions in diagnostic and treatment delays, mitigate the risk of patients being lost to follow up, improve co-ordination of care, and contribute to earlier diagnosis, more timely treatment, and a more seamless patient experience <p>The project will establish the data and analytical infrastructure needed to support a learning health system in NCL, aligning with the ambitions of the National Cancer Plan to use data and digital innovation to improve outcomes, reduce inequalities, and deliver more personalised and co-ordinated patient care.</p>
Section 4 – Resources	
5. What do you see as the likelihood of attracting external funding?	As per the CogStack model, the aim is for NCLCA to provide seed funding for this project. Additional use cases can be funded using the syndicated funding model adopted by the RFL CogStack team where charity and pharma have funded a range of direct care, insight projects and research. For example, Pharma is currently funding a CogStack project to identify patients who present with immunotherapy side effects and if there is any insight which can feed into future prescribing behaviour and patient management.
6. High-level indication of how the budget would be used*	<p>We are proposing to de-risk the project for both RFL and the funder by recommending a milestone payment approach. Funding of future phases would be contingent on successful delivery of prior phases.</p> <p>Phase 1 – Proof-of-concept as applied to a referral to diagnosis pathway with existing report to enable comparison e.g. colorectal cancer.</p> <p>Phase 2 – Scaling application to include first treatment pathway.</p> <p>Phase 3 – Scaling application to include adjuvant treatments and follow-up.</p>
Section 5 – Anything Else	
7. Is there anything else you would like to flag?	<ul style="list-style-type: none"> • This proposal would be novel. Large providers of analytics to the NHS such as Oracle and Palantir are using SQL based methods which require manual coding and constant maintenance. • CogStack is already established within RFL and we have approval from the R&D director that this project can go through the clear and

	<p>established approval route for CogStack projects (CogStack steering group provides feedback whilst Innovation Feasibility Group approves).</p> <ul style="list-style-type: none">• Clinical subject matter knowledge will be pulled into the project based on the tumour site(s) that are selected for each phase. There is an established project onboarding process which will make efficient use of clinical input.• The following paper discusses a similar approach to the desired future state & the authors of the paper are the proposed collaborators. https://www.frontiersin.org/journals/digital-health/articles/10.3389/fdgth.2026.1780700/full
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