

Clatterbridge Cancer Centre Cancers of Unknown Primary (CUP) Pan-Tumour Diagnostic Pathway Development Project (PDP)

December 2023 – April 2024

This project was part of a collaborative working agreement between MSD and Clatterbridge Cancer Centre (CCC).

Summary of Project

A National Optimal CUP Pan-Tumour Diagnostic Pathway has been created with the intention of improving patient experience through ensuring all CUP patients receive optimal cancer care. There was an opportunity in Merseyside to optimise the CUP pathway in line with the National Optimal CUP Pan-Tumour Pathway to improve the service quality, efficiency, productivity and patient experience.

Objectives

- An optimised CUP Pan Tumour Diagnostic pathway aligned to the national optimal timed CUP pathway
- Measurement of the outcomes of the project and disseminating these outcomes within 6 months of the project completion

Solutions

- A generic email address was set up to simplify access to CUP Whole Genome Sequencing (WGS).
- Created staff satisfaction surveys to understand and mitigate challenges in the CUP genomic pathway.
- Radio Frequency Identification Device (RFID) tagging system introduced for tissue specimens to track samples travelling from CCC to the Royal Liverpool University Hospital¹.
- A detailed progress report on the CUP genomic pathway was provided to the Outpatient Transformation Programme Board, resulting in a genetic form and communication plan for easier access to genomic test results in the CCC Meditech system.

Impacts

Patient Benefits

- Improved patient experience of CUP Pan Tumour Diagnostics pathway in Merseyside through facilitation of Whole Genomic Sequencing to reduce biopsy turnaround time.
- Establishment of a Genomic Education group supported access to genomic resources and tools for patients.
- Development of a patient story video helped to raise awareness of pathway changes.
- Trialling an RFID system avoids duplication of having to acquire a tissue sample twice and the stress this brings to the patient in repeating the procedure.

“The collaboration has been excellent, working with MSD helped us process map the pathway and the outline issues, which we would have never done as well on our own. Also, regular project planning and clear actions helped me to account for the work I was supposed to be doing, to ensure timely actions and outcomes.”

- NHS Stakeholder Feedback

NHS Benefits

- **CUP turnaround time reduced from an average of 80-87 days to 45-52 days.**
- Wider communication of the pathway and process means staff are now more aware of the differences in the storage for WGS samples.
- Introduction of the RFID tagging system resulted in a reduction in the number of missing samples. CCC are now looking at using the RFID system for other samples.
- Development of a staff satisfaction survey means staff can better understand the challenges in the CUP genomic pathway. Survey findings mirrored the issues raised by the CUP WGS pathway process mapping.
- **Effective collaboration with Manchester Genomic Laboratory Hub and Liverpool Clinical Laboratories team to reduce the pathway turnaround times.**
- Cheshire & Merseyside Cancer Alliance are taking forward recommendations proposed from this project as part of their 2025/26 priority programme, for wider system alignment in supporting a reduction in the CUP WGS pathway.

References:
 1. New Tracking System for 'whole genome sequencing ... (2024) New tracking system for 'whole genome sequencing' samples helps CUP patients start treatment sooner. Available at: <https://www.clatterbridgecc.nhs.uk/about-us/news/new-tracking-system-whole-genome-sequencing-samples-helps-cup-patients-start-treatment-sooner> (Accessed: 17 January 2025).