

# Development of a Single Hospital Service Cardiac Cross Sectional Imaging

Reid A.B.<sup>1</sup>, Motwani M.<sup>1</sup>, Nucifora G.<sup>1</sup>, Evans A.<sup>1</sup>, Middleton L.<sup>1</sup>

<sup>1</sup> Manchester Heart Institute. Manchester University NHS Foundations Trust

## BACKGROUND

Following the merger of two tertiary centres in Manchester, the single Cardiac Division at Manchester University Hospitals NHS Foundation Trust (MFT) represents one of the largest Cardiology tertiary centres in the UK. Combined, the Cardiac Cross-Sectional Imaging (CSI) departments at both hospitals are the biggest providers of local and regional specialised cardiac MR and CT services to Greater Manchester (GM), Cheshire and South Lancashire

## AIMS

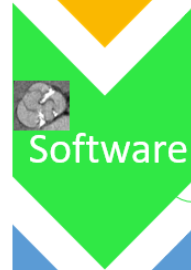
This project aimed to combine the two disparate Cardiac Cross-Sectional Imaging services running within MFT, to create a single dedicated unit that meets the Trust's vision of a single hospital service for Cardiology, within the GM 'Cardiac Hub' at MFT.

## METHODS

Key operational opportunities have served as catalysts for change:



- The MFT 'HIVE project': the creation of a single integrated electronic patient record (EPR) aiming to amalgamate Trust-wide healthcare informatics.
- A working group (WG) between the new software analysts, radiologists and cardiologists was created.



- The requirement to consolidate imaging analysis software that will integrate with the new EPR to standardise and enhance reporting practices across sites, thereby increasing patient safety and workflow efficiency, facilitating cross site working and maximising audit and research opportunities.
- An appraisal of existing software assets, including an assessment of their electronic compatibility with the new EPR, their capabilities, and the cost to extend and expand existing licences has been performed.
- A risk-assessment and options appraisal of current and proposed analysis and reporting practices has formed the basis of a business case in application for funding.

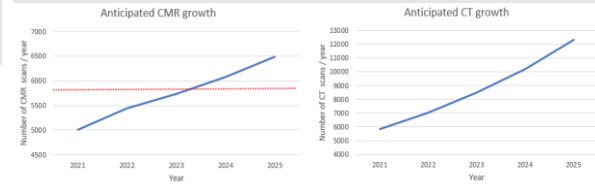


- The imminent expiry of a managed service contract with a private provider that currently serves the largest of the two departments. A WG of key stakeholders (clinical, managerial, financial, procurement and legal) aimed to:
  - a. Define variable 'gold-standard' models of care (e.g. single site vs. hub-and-spoke) and what resources would be required to create this 'ideal'.
  - b. Assess current scanner capacity, and current and projected demand to predict service expansion resource requirements that would more adequately serve the population of GM (recognising that there is nationwide underprovision of cardiac CSI).
  - c. Develop a business case that underpins this service change.
  - d. Complete a tender process that yields a provider for a large, single cardiac CSI service.

## HIVE RESULTS

Through HIVE, there will now be a single portal for referral for cardiac CSI. Referral and vetting forms, and radiographer practices are harmonised.

## OVERALL RESULTS



Based on anticipated service growth, we will near-saturate current maximal scanner capacity (dotted red line) by 2025 in both modalities, even with 7/7 working, meaning that additional scanners and workforce will be required in the short to medium term.

We are currently in the pre-market engagement stage of the tender to further inform our strategic approach and ultimate business case.

## HIVE RESULTS

A single-service dedicated cardiac cross-sectional imaging service at MFT would be one of the largest in the UK. Concentrating expertise within the Hub aims to enhance quality, innovation, safety and efficiency, promoting 'patient pathway'-focused care, rather than siloed speciality-focused care, with the patient and their experience at the heart of the service.