



Exploring **innovative solutions** to **improve the blood test pathway**

Background

During 2020, TheHill worked with Oxford University Hospitals NHS Foundation Trust (OUH) to highlight the innovative practices which emerged in hospitals during the first wave of the COVID-19 pandemic. Published in July 2020, the '**OUH COVID-19 Response: Innovation and Technology Retrospective**' captured how and why innovation took place during this period. Leading on from this, TheHill engaged with teams across (OUH) to **showcase best practice, co-design improvements to processes for evaluating innovation**, and to **capture and communicate staff ideas and perspectives**.

Objectives

The *Exploring Innovative Solutions to Improve the Blood Test Pathway* series of workshops aimed to gain a better understanding of the blood tests pathway, particularly to:

- **identify practices that work**, including those developed as a result of COVID-19
- **Explore opportunities for improvement**
- **identify remote alternatives**, including digital innovations to promote safe, closer-to-home access to blood tests.

Outcomes

The benefits of successfully improving patient pathways include:

- enabling a **seamless workflow** between primary, secondary and community care
- **reducing** the need for **hospital attendance**
- **Improving** patient and staff **experience**
- **increasing the productivity and cost-effectiveness** of existing workflows
- **documenting the findings**.

Why this is important

With the prioritisation of telemedicine solutions for virtual patient care, a key priority for OUH has become solutions and ideas that address the need for patients to attend hospital for blood tests, as the latter contradicts the move to online consultations and remote monitoring.

The Integrated Quality Improvement Team at OUH has been tasked with exploring the establishment of a remote phlebotomy service to address four key challenges faced by services during the pandemic.

Key aims of remote phlebotomy service

Support clinicians in utilising virtual outpatient appointments

At least
7,000
outpatients attended OUH sites
to have blood tests each month

*IM&T Information request

Help to reduce number of patients attending GP surgeries for blood tests

Patients attending GP practices for OUH requested blood tests has

more than doubled
between March & Q3 2021

*ORBIT data

Reduce footfall at OUH sites to help with social distancing

43%
of patients attending the John Radcliff and Horton hospitals
attended for blood tests alone

*OUH services manual audit

Improve patient experience by providing care closer to home

We know that...

There is no space at OUH sites to expand phlebotomy services

Traffic congestion and parking issues make travel to site undesirable

Methodology

TheHill hosted a series of four workshops, facilitating discussions between stakeholders to identify challenges and tease out solutions. Participants were drawn from across the Oxfordshire ecosystem.

The stakeholder groups included OUH clinicians, OUH Hospital at Home teams, Oxford Health, community care organisations, PML Services, GPs in primary care and patients.

A total of 59 healthcare professionals participated. The first three workshops targeted secondary care, Hospital at Home teams and primary care respectively. The fourth workshop focused on patient representatives. And the fifth and final workshop aimed to consolidate the information gathered and report on the findings.

Common challenges, best practices, ideas and potential solutions were captured and themed after each of the sessions.

Opportunities to provide additional feedback were available through *ad hoc* channels running alongside the workshops.



Summary of findings

The blood test pathway needs to become as patient-centric, personalised, and cognisant of the individual and diverse needs of patients as possible.

Qualified expertise necessary for critical decision making and the responsibility to act, must be balanced with patients' prompt access to care and results which requires robust and validated systems.

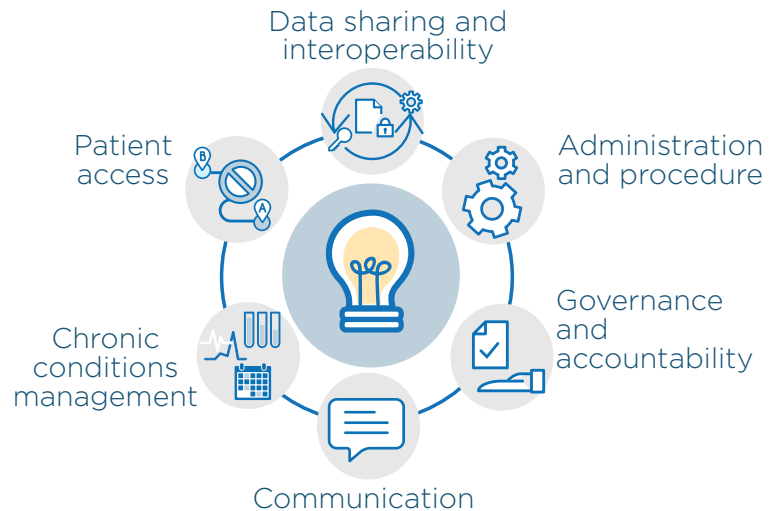
Convenience of location and time featured highly as significant considerations, along

with the option for patients to be able to access results in a way that works for them. In many instance chronic disease management amplifies challenges, but also provides the opportunity for broader sharing of responsibility with patients as well as remote and other innovative solutions.

Digital solutions need to consider, and not compromise, the relationships of trust that develop between clinicians and patients.

Barriers and solutions

The overarching themes which emerged during the workshops can be clustered into five key areas:



In general it was clear that **interoperability of digital systems and access to information** between community, secondary and primary settings; and patient and clinician, are areas for improvement. Also repeatedly identified as significant were standardised procedures, data flows and accessibility to requisitions and results.

Difficulties with time, equipment and skills have a knock on effect across the pathway, and consequently on **access to quality care and levels of anxiety for patients**. This is especially marked if the link with the responsible clinician is lost, or after hours care at home is affected.

Closing the loop on clinical responsibility for follow-up on results, especially when tests are requested on behalf of another clinician can be challenging; **access to the correct blood tests at the right time, to the appropriate clinician remains the mantra for improvement.**

Accountability, responsibility and transparent governance are complicated by different contractual arrangements which exists for different parts of the system. There are concerns about potential increases in workloads and increasing liability for GPs if responsibility is devolved to primary care level.

Process variability in requests, data entry, communication methods, labeling challenges and prompt action on blood results can be addressed through **additional training and supervision**. Supplemented by **communication** that clarifies **point of contact, lines of accountability and governance arrangements**, these solutions have the potential to enhance effective clinical decision making as well as improve administrative efficiency.

Practices that work

And some suggestions for things possible solutions

- » Dedicated email directory regularly monitored for blood test enquiries, to hospital specialists or administration
- » Standard operating procedures for different patient pathways (across clinical specialties, primary and ambulatory care)
- » Menu of available tests (e.g. POCT/iStat/lab test)
- » Patient education and communication via online portal (GP, OUH, NHS app)
- » Project MOVE mobile blood testing
- » Issue tracking logs to identify areas for improvement and reduce administrative burden (incl. chasing results, repeat test, arranging logistics)
- » Notification system for multiple blood tests requested by clinicians different from organisations
- » CareAware Connect for bloods workflow management
- » Chronic condition monitoring framework

Considerations for innovators

- Data must arrive with the correct clinician in time for appointments, regardless of where the blood is taken or processed
- There needs to be a reduction in manual administrative time (phonecalls, emails) required to make this happen
- The clinician receiving the information needs to be the one who has the expertise to act upon it given that clinicians have an imperative to act upon information received
- Solutions need to appreciate the complexity of testing requirements; point-of-care-testing has limitations compared to lab testing, and different patient groups have different prerequisites
- Communication with patients needs to provide enough information to reassure them or suggest the next action required, as apposed to only providing results with no interpretation
- Robust monitoring process for monitoring progress and issues across every step of the blood test pathway will be required to optimise the process, and reduce delays and errors

Things people said



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There is a strategic imperative for closer to home blood tests

Remote consultations reduce traffic on site and provide a better service to patients, especially those who are frail or for whom travel is exhausting.

“ Remote consultations need to be incorporated into health services in the post-pandemic period, in a way that integrates the flow of requesting, collecting and sharing bloods test results into the new remote consultation approach. ”

Project MOVE

Project MOVE is a series of self-contained clinical bays that have been designed to fit into existing single-decker city buses. Each bus can typically accommodate three clinical bays, an administration area, storage and refrigeration facilities, and connect by secure WiFi to hospital systems. This enables the buses to act as a flexible, mobile means of delivering effective and efficient care directly to local communities.

As part of an on-going improvement and innovation project with the Integrated Quality Improvement Team at OUH, TheHill is collaborating with Oxfordshire CCG to evaluate and implement a mobile facility solution. It is aimed at delivering care directly to communities using existing city buses, converted to accommodate other services.

This is a potential solution to the urgent short-term need within phlebotomy to provide a remote alternative to in-hospital blood testing.

A viewing of a prototype was arranged at the Churchill and Horton OUH hospitals in 2020 and based on feedback and further improvements is due to launch in 2022.

EPR INTEGRATION

DrDoctor software is being utilised to manage the appropriate integration into OUH systems

THE POTENTIAL TO MAKE A SIGNIFICANT DIFFERENCE TO CAPACITY

Project move has potential capacity for

400
patients per week

1,600
patients per month

76,000
patients per year
(over 48 weeks)

Potential to reduce onsite visits by **20%**

Scaled up over 14 weeks

8,875
patients could be seen by the end of the pilot

OUH STRATEGIES ADDRESSED

1. Going Digital

2. Close to Home

LAUNCH DATE
March 2022

OUR PARTNERS

- » Oxfordshire Clinical Commissioning Group
- » OUH Integrated Quality Improvement Team
- ? *OUH Outpatient Improvement Services ?*
- » Q-Community grant
- » Oxford Bus Company
- » Project Move



TheHill is actively engaged with the OUH Improvement Team's programme. We are proud to have offered a solution which has turned into the joint Project MOVE activity



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