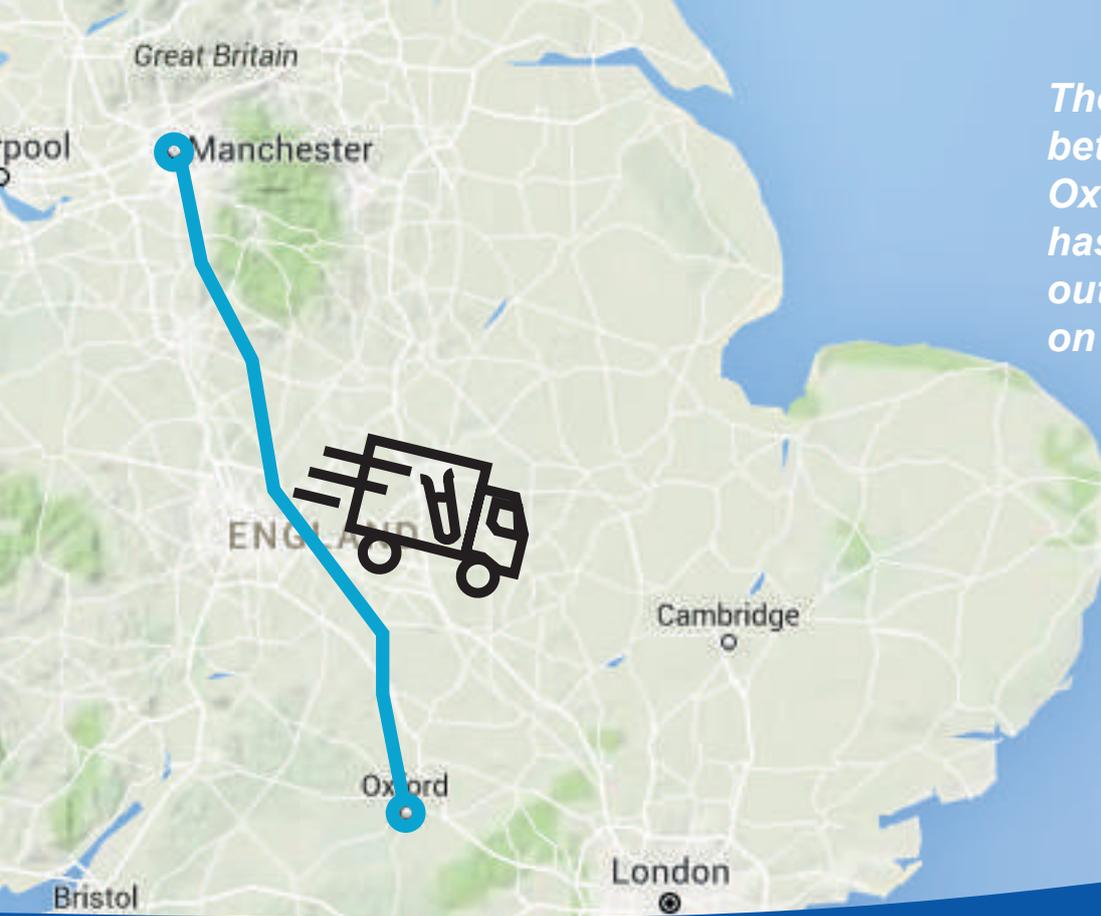




The purpose of this case study is to:

- *Understand the challenges of sending paper requests and receiving paper reports by post*
- *Document the current process for a send away test*
- *Describe the benefits of electronic receipt of requests and transmission of results*



The new test route between Manchester and Oxford is the first one that has been established outside existing networks on a national level.

Background

A high majority of NPEX customers have subscribed to the national NPEX service to enable digitised send away tests across local networks.

The Immunology department at Central Manchester University Hospitals NHS Foundation Trust (CMFT) currently accept 81% of test referrals via NPEX, from across Greater Manchester (previously Greater Manchester Pathology Network, GMPN), with only 19% still on paper.

As a specialist referral centre themselves, the Immunology department at CMFT send around 1,080 test requests away per annum, which is less than 1% of the total work they do.

On notice of the laboratory at Oxford subscribing to NPEX, CMFT Immunology were keen to start realising the benefits NPEX brings to referring tests namely improving turnaround time and the elimination of transcribing errors.

Enabling these two laboratories to communicate using NPEX involved a number of challenges that are outlined in this document.

Those that are sent away will be sent to national reference centres such as Oxford. Oxford University Hospitals NHS Foundation Trust (OUH) subscribed to NPEX in 2015.

Challenges of using paper

Before Oxford University Hospitals NHS Foundation Trust was introduced to NPEX the only way for CMFT to send requests away and receive the results back from Oxford, was by paper, via the post. This process caused many difficulties for CMFT, these challenges included:



High turnaround time: CMFT's median turnaround time for all referred tests is 15 days.



Results entered incorrectly when they are received at CMFT, meaning that the clinician may receive the wrong results for a patient.



Lost post, or post sent to the wrong location, often due to human error or a poorly written request form.



An amended report highlighting the wrong and correct result will need to be issued. Both the clinician, and possibly the patient, needing to be made aware of the error.



Clinical transcription errors. In cases of incorrect results the consequences include unnecessary treatment or delayed treatment, both of which could be potentially catastrophic.

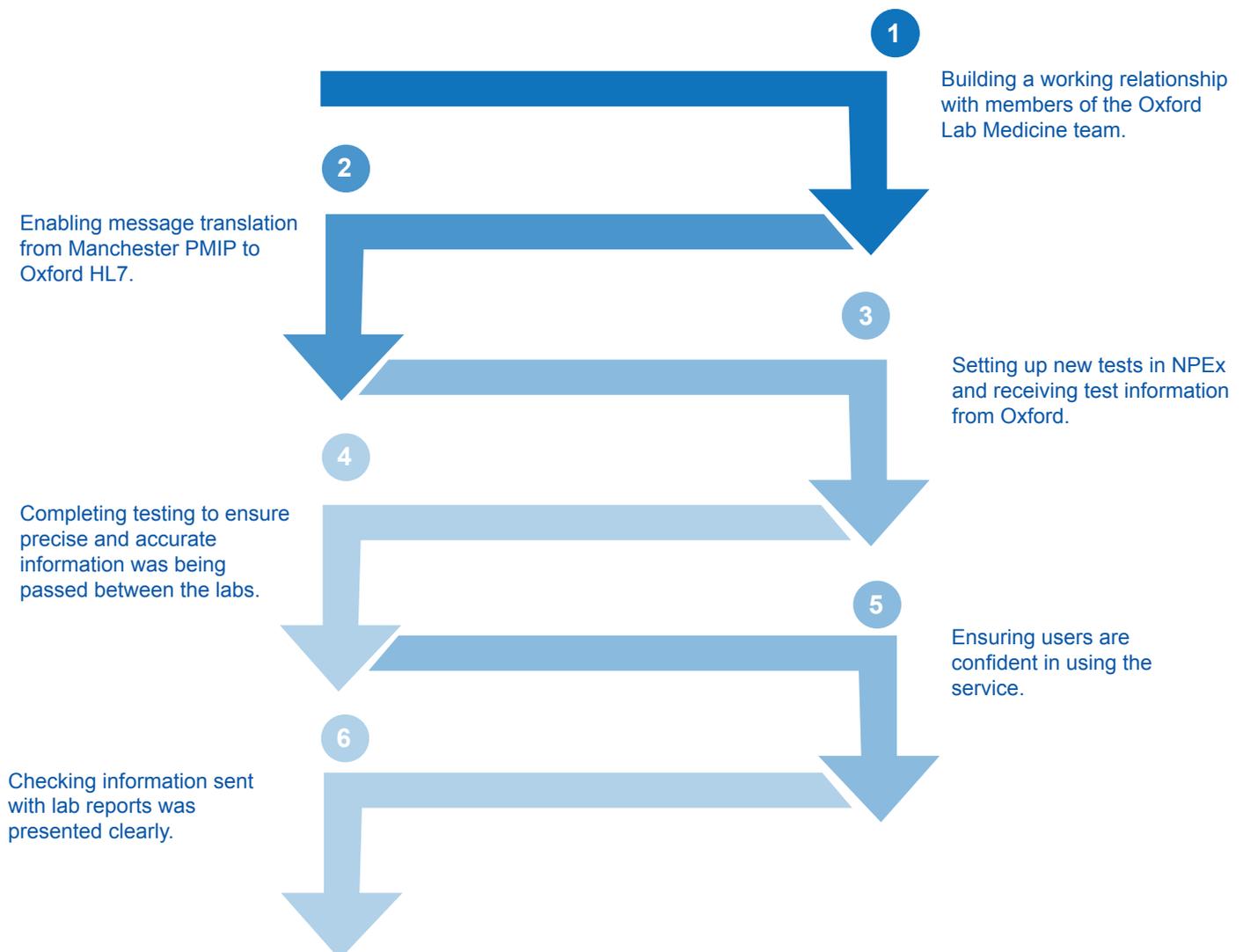


Lost samples, requiring the patient to be re-bled. A new visit for the patient results in further wasted time and an increased clinical risk.

Service users rapidly experienced the benefits of NPEX through a simple series of implementation activities.

Implementation

Once Oxford University Hospitals NHS Foundation Trust had confirmed and completed their internal NPEX testing, CMFT approached implementation by:



“ *...the real benefit of getting results back to the clinician and the patient faster is invaluable...* ”

- Robin Lythe, Senior Biomedical Scientist

Benefits

NPEX will now enable CMFT to send a digital request over to Oxford's LIMS system, providing clear and legible information that Oxford can easily understand. The NPEX process uses minimal paper, only requiring that the user prints a shipping manifest that is packaged with the samples which is sent by post/courier.

Once the samples have been analysed and the results are made available in Oxford's LIMS system, they will automatically be sent through NPEX. CMFT will receive the results instantaneously therefore improving their turnaround time by 2-3 days.

- ✓ **Improved quality** of request information
- ✓ **Improved accuracy** of results returned as laboratory staff at CMFT no longer need to transcribe these results, removing the potential for manual input errors
- ✓ **Reduced staff cost** due to reduction in staff time spent sending samples away, chasing up missing reports and reporting final results back into their LIMS system
- ✓ **Same day reporting** due to the ability to return results back to CMFT as soon as Oxford tests the sample
- ✓ **Paperless reporting** with Oxford
- ✓ **Clear audit trail logging** enables CMFT to see exactly where samples are located, time & date of key activities and the persons involved in performing those activities
- ✓ **Easy for CMFT laboratory managers** to see where the business process has come to a halt with date & time stamp evidence
- ✓ **Test requests and results no longer get lost** in the post as the location details are legible

“Having converted to NPEX as a performing laboratory some time ago, this project represented a great opportunity to realise the benefits of NPEX from a referral lab perspective. The chance to improve the quality of the work we produce should never be missed and the real benefit of getting results back to the clinician and the patient faster is invaluable in terms of the service we offer to our users. Although there is a short-term requirement for time and resources to be invested into the project, the long-term benefits of improved quality and significant cost savings will more than make up for this.”

- Robin Lythe, Senior Biomedical Scientist at CMFT

