





NAVIGATING DAGNOSTICS WILL TESTING LEAVE THE LAB AND MOVE TO THE COMMUNITY

On the back of a new report on the future of diagnostics, we look at whether lab services are likely to be moved out into the community.

hen the history of the COVID pandemic in the UK comes to be told, a host of collective experiences will push to the fore. The deep sense of unease as the country

went into lockdown, the supermarket shelves stripped bare, key workers striving to maintain crucial services, pots and pans banged in gratitude for the NHS, and, ultimately, the nationwide vaccination programme.

Also in there will be the mass testing: the accurate but more involved polymerase chain reaction (PCR) tests given in hospitals, GP surgeries and walk-in centres, and pushed through millions of letterboxes, before being sent to the lab; and the small plastic lateral flow devices (LFDs), administered by the individual, less accurate but far quicker, which took up so much of the everyday burden of testing for potential infection.

In the shadow of this explosion of PCR and LFDs lurked all the routine healthcare diagnostics that weren't carried out as the NHS focus shifted to COVID and resources were diverted to provide point-of-care testing (POCT) in wards full of people hospitalised with complications from severe infections.

In some ways that are visible, and in other ways that are yet to be fully understood, COVID has rearranged the healthcare landscape. Not least, it may have given us a glimpse of the future of

LLUSTRATIONS: SAM FALCONER

MEDICAL SCIENCE ST Cover feat

diagnostics and testing, where they move out of the laboratory and much closer to the public.

Closer to home

Acknowledging that something fundamental had shifted, the government announced in October 2021 that it was to establish a series of testing sites that would be more convenient for patients. "Millions of patients will benefit from earlier diagnostic tests closer to home thanks to 40 new community diagnostic centres set to open across England in a range of settings from local shopping centres to football stadiums," trumpeted the press release. "The new one-stopshops for checks, scans and tests will be backed by a £350m investment from government to provide around 2.8 million scans in the first full year of operation."

Intended to be staffed by multidisciplinary teams of nurses, radiographers and other skilled personnel, and open seven days a week to provide a range of checks, scans and tests, these embryonic community diagnostic centres (CDC) had numerous claimed advantages: they would offer faster and more convenient testing, they would reduce the need for hospital visits. which would in turn reduce the risk of COVID transmission and help hospitals concentrate on treating urgent cases, and in tackling the diagnostic backlog they would contribute to the NHS's net zero ambitions by cutting the number of patient journeys.



State of diagnostics

Just 12 months later in October 2022, the King's Fund published a report called "Why do diagnostics *matter*?" that examined the current state of diagnostics in the healthcare sector and the potential future demands on capacity and capability. While it broadly welcomed the proposed roll-out of CDCs it also noted that "government restrictions on the building of new facilities and the so-far limited range of tests on offer at these centres risk limiting their potential to increase diagnostic capacity and provide quicker and more convenient access to patients". Besides the facilities themselves, the report voiced concerns about the availability of suitable equipment and machinery, and of skilled staff to run and maintain the CDCs.

While the reality of CDCs is currently falling somewhat short of what was pledged, they do have the potential to help clear the backlogs that built up during the COVID lockdowns. But as pressure builds on NHS services, are initiatives such as CDCs, where the focus shifts outwards instead of inwards, the real future of diagnostics?

Reshaping demand

Lee Peters, a Laboratory Manager in Hywel Dda Health Board, says that COVID reshaped the demand for diagnostics. "From a blood sciences point of view, the workload for the laboratory decreased because patients weren't going to hospital and giving bloods. At the same time, demand for POCT increased, particularly on the wards. They didn't want to

> transport samples because of the infection risks, so there was a need for extra testing and equipment." Whether





this amounts to a real shift in testing and diagnostics remains to be seen. "I think there is more focus on community testing and avoiding bringing people into hospital if possible, and POCT is an increasing part of that. I don't think it has totally shifted because the laboratory is still probably the most efficient and cost-effective way to do it. But there's certainly a greater understanding of the benefits of taking tests to the people."

Sarah Glover, POCT Clinical Lead at Harrogate and District NHS Foundation Trust, says that while most of their testing remains hospital-based, some is already happening via community services and outreach clinics. "We have some POCT in terms of glucose, ketones and urometers, and we've got some outreach clinics that are part GP and part secondary care that see patients who might otherwise need an outpatient service. We also have a portable blood gas analyser, which goes out into the homes of oxygen-dependent patients, who might otherwise find it difficult to come into hospital."

During the lockdowns the internal demand for tests and equipment soared,

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"There's a greater understanding of the benefits of taking tests to the people"

as it did across most trusts. "We had a big demand for blood gas analysers and a massive need for training because staff were being relocated left, right and centre. And then there was the need for a POCT COVID service in our emergency department. The demand for these services is now fairly stable. But there are community projects in the pipeline that I think will be wanting more and more POCT support. We're in the early stages of that."

Staff are stretched

The emerging demand for community diagnostics is also on the mind of Joanna Andrews, the Lead for Blood Sciences at Scarborough, Hull, York Pathology Services, covering biochemistry, haematology, blood transfusion, immunology and POCT. She is currently working out what the trust's community diagnostic services might look like.

"During the pandemic our workload dropped off because people weren't doing the routine blood tests," she says. "But we're now back to business as usual, except we've got a lot of COVID testing we weren't previously doing. With all this extra work, the staff are really stretched."

For the moment the community side of the service is restricted to looking after the glucose meters used by district nurses when visiting patients, otherwise the bulk of the work remains POCT focused on the wards. "We have a lot of equipment spread over wards, used by lots of different staff grades. We're responsible for making sure that equipment is used and maintained properly, that people are properly trained and that all the right quality checks are done."

Devil in the detail

While demand for diagnostics and the related laboratory services is as high as it has ever been, could CDCs help to relieve the situation, or might they simply pose more questions and even add to the burden?

"The devil is in the detail," says Lee Peters. "How will they be funded? How will they link in with current networks and systems? How will they be staffed, because it won't necessarily be a requirement just to do a blood gas or a glucose test? I'm a POCT convert, and looking at things from the pathology perspective my view may be a bit skewed, but I think it could be a positive move. I'm cautiously positive."

In Harrogate and District NHS Foundation Trust, Sarah Glover and the team are keen to get keen to get involved with any local CDCs as early as possible. "We are keeping our eyes and ears open for anything that's going on and trying to be active from day one. We may not need to be involved in everything, but the more notice we've got, the better we can avoid a massive scramble and actually help to set up a service that's fit for purpose."

If these services are to establish and flourish, the key, she feels, is this professional input. She has heard stories of budding community services going straight to device manufacturers rather than drawing on local expertise. "Perhaps that's happening because they haven't got an appreciation for what is already set up in secondary care and how we can help them. We want to be involved and we want to advise and help build that service and support it going forward."

Joanna Andrews says that she is already very much involved with the CDCs being set up in the York and Scarborough area, though, again, detail is scant. "A business case has been written to identify what funding we need for them, but we still don't really know what we're going to be doing in there. What services will be needed? What patients might be coming?" She also wonders if some of the plans are





entirely realistic. "It's all very well saying 'let's have a CT scanner', but you still need the skilled staff. Do you take them away from the acute side?"

Get over those hurdles, though, and the CDCs could work to everybody's advantage. "Anything that can help support patients through a pathway, get an outcome and not necessarily have a routine hospital appointment or getting delayed is fantastic."

Not that any of this is actually a new idea. Some years ago the health board did a deal to put a phlebotomy service in a superstore. "It worked brilliantly for everybody and has just moved to a community stadium," says Joanna. "It showed that phlebotomy sites out in the community can be fantastic. But I just don't know how much extra testing is really needed and some POCT is expensive."

Unanswered questions

Another big question for the biomedical scientist community is whether they have anything to fear from taking more testing out of the lab and into the wider environment, whether it's more POCT, in the community or in the home?

"I think that as a profession we are forward looking," says Lee Peters. "As a whole we embrace change and understand the need for it. But speaking to colleagues, because the detail isn't there and some questions haven't been answered – things like clinical accountability and who takes ownership – the general feeling is, yes, we can see the benefits, but we're waiting to see more."

Sarah Glover feels it has to be a good thing if services can be provided closer to where people live or even in their own homes, so they don't have to travel to secondary care.

DIAGNOSTICS IN NUMBERS



In July 2019, 37,206 patients were waiting longer than six weeks for a test. In July 2022, the figure was 424,605.



diagnostic test should take less than six weeks, with the NHS target set at 99%.

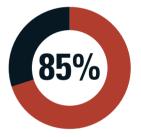


The NHS undertakes more than 1 billion diagnostic tests every year, accounting for about 6% of its budget.



In July 2019, 4724 patients were waiting longer than 13 weeks for a test. In July 2022, the figure was 164,043.

In the pandemic more than 1.5 million people were waiting for the 15 diagnostic tests and procedures in NHS England's data collection.



More than 85% of clinical pathways involve diagnostic activity.

"If we can free up secondary care services for the patients who really need them, that's got to be a good thing too."

She also says the quality of devices is now good enough to allow it. "Previously, they were often viewed as second rate,

but mobile analysers today can be as good as those in the laboratory. Even so, they don't always need to be. Sometimes it's about providing a screening test so a decision can be made on further testing. Being able to make those rapid decisions in the community would be a great advantage."

Joanna Andrew agrees that the profession needs to embrace the idea of community testing and diagnostics. "We do need to get involved because if we don't, we run the risk of other professions stepping in, for example, the pharmacists in Boots doing cholesterol tests." If biomedical scientists are involved, she argues, the quality assurance is there.

"We can make sure the right equipment is being used properly, and that the results are right. I also think there's a potential that we could use it further to our advantage by perhaps being

more involved with the patient. "I think we must keep ourselves involved, otherwise we risk being the forgotten people in the lab."