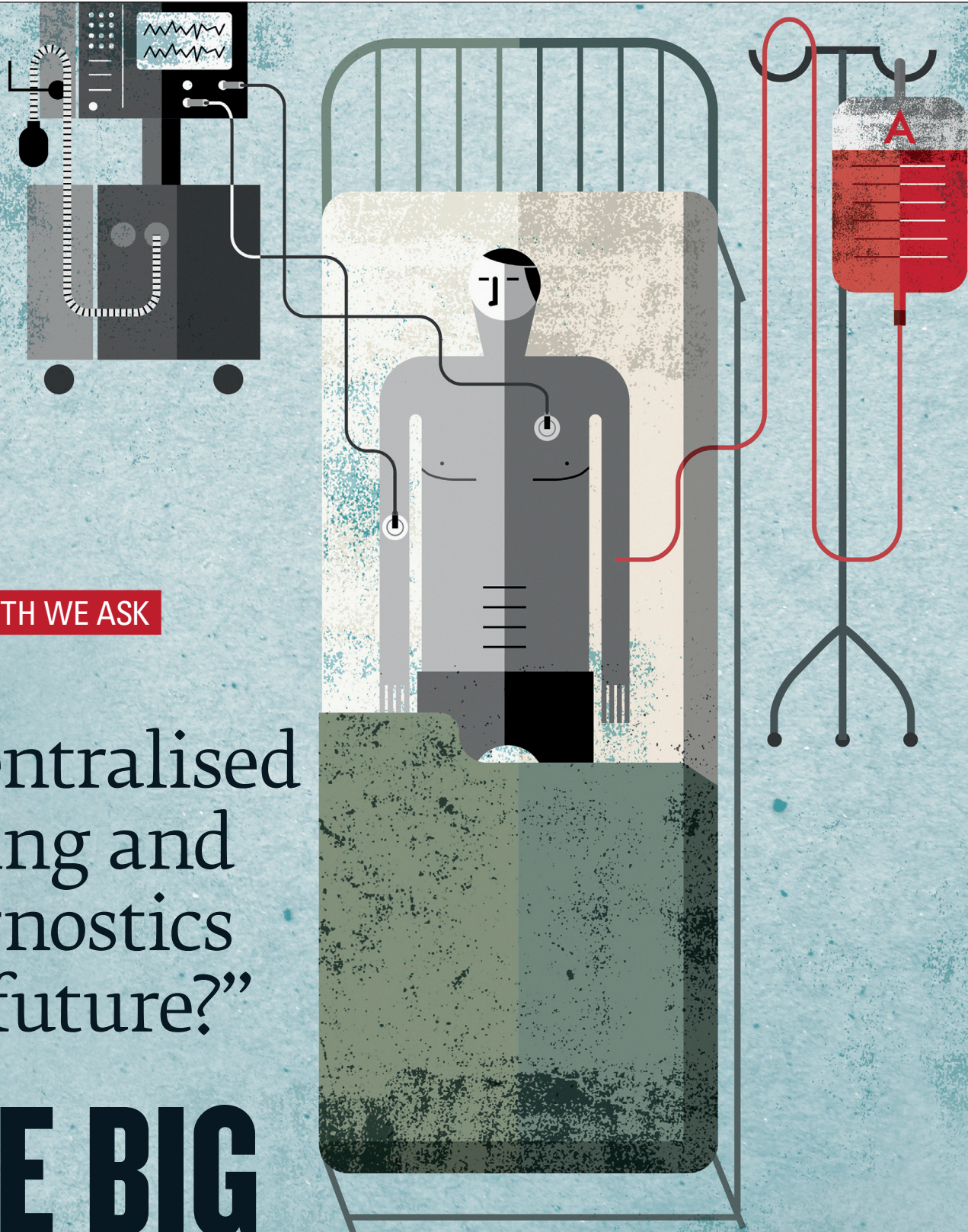


THIS MONTH WE ASK

“Are  
decentralised  
testing and  
diagnostics  
the future?”

# THE BIG QUESTION







## Dr Sarah Glover

**Consultant Clinical Biochemist  
& POCT Clinical Lead**

**Blood Sciences, Biochemistry  
Harrogate and District NHS Foundation Trust**

**T**he COVID-19 pandemic has shifted focus towards delivering healthcare services away from traditional settings. One rapid small-scale example here in Harrogate demonstrates how risks can be minimised and patient experience optimised, through decentralisation of services. Thanks to a little thinking outside the box, and the generosity of a local church, we are able to provide a critical phlebotomy service to patients on anti-coagulant therapy, in a safe environment.

Investment in the provision of decentralised testing services can help facilitate the delivery of traditional care pathways away from conventional settings. Point-of-care testing (POCT) can support the provision of healthcare services across many locations. Developments in POCT continually increase the range of tests that have diagnostic value outside of the centralised laboratory.

When governed appropriately, decentralised testing has significant potential benefits for patients and services, relieving pressures, optimising outcome and experiences and improving health economies.

Decentralised testing will be integral to the delivery of healthcare outside of secondary care and must be fully integrated. Substantial investment is needed to ensure appropriate clinical oversight of testing across numerous community settings and full integration with electronic patient records.



## Richard Wardle

**Lead Laboratory Manager - Haematology,  
Coagulation and OPD Phlebotomy Services  
Sheffield Teaching Hospitals NHS Trust**

**O**ver my career, this question has been raised numerous times, in some form or another, and it is not surprising current circumstances are making us review healthcare delivery.

In theory, better access to tests and diagnostics in the community sounds great, and delivered properly there are obvious advantages. But “delivered properly” is the crux of the matter. NHS laboratories are heavily regulated institutions, adhering to stringently defined standards. Results generated are from well-maintained, quality-controlled analysers, operated by highly competent staff. All this comes together to produce a high-quality, accurate result. To replicate this in a community setting is not an insignificant task. Add to that the additional complexity of linking existing IT systems to ensure a full, audited patient record and you have a daunting proposition. That said, with the right careful preparation, implementation and management, this is not unachievable.

However, I believe there is a possible middle-ground to be found. The COVID pandemic has made us adapt and streamline our traditional service. Novel but proven ways of collecting samples, such as drive-through phlebotomy, better logistics and utilisation of current laboratory facilities, alongside efficient processes, such as video consultation, have worked well. Supplementing this with appropriate POCT, once commercial offerings can support laboratory-level quality, surely has to be best for patients.



## Chris Maple

**Consultant  
East Yorkshire Microbiology**

**M**y recent experiences with COVID-19 have highlighted several scenarios in which decentralised testing can be applied to facilitate healthcare – to screen individuals as “fit to work or fly”, or to admit patients to appropriate care pathways.

The provision of “immunity passports” was initially viewed as a means to cohort workers who could be shown to have protective antibody. The detection of COVID-19 immunity using lateral flow devices (LFDs) has the benefits of enabling self-testing or testing in non-laboratory environments and the UK government has committed to this as Pillar 3 of its UK testing strategy. Unfortunately, there have been reports of the purchase of large numbers of devices of suboptimal performance and there are several limitations to their use. Recently, in an assessment by Professor Karol Sikora and myself on COVID-19 antibody testing and the use of LFDs, it was concluded that they cannot be relied upon as a means of safely re-establishing oncology services.

Important differences between centralised and decentralised testing are the challenges in undertaking the rigorous quality assurance of LFDs. On a more positive note, a particular success story of technological advances contributing to COVID-19 control efforts is the provision of rapid nucleic acid testing devices that can be used in A&E departments to appropriately cohort patients. So, there is a role for decentralised testing so long as the technology can deliver data of acceptable quality at the right price.