Covid-19 Testing Methods Bulletin No 5 – 15 May 2020

Dear Colleague

Earlier this week we held our second community webinar with NHS labs, and we are grateful to many of you for joining.
We got into more detail around the challenges and solutions on the Testing Methods platform. In particular, we held conversations on how labs are implementing specific testing approaches. We also spoke about what the next weeks look like in terms of scaling-up capacity and throughput. The recording is available below.

We will host the next engagement webinar in a fortnight and take on board what is most useful for the community to discuss. Thank you as always for your views, comments and questions. As in previous bulletins, we will continue to answer questions put to us weekly.

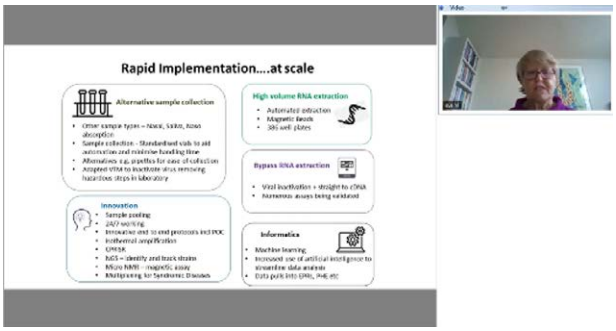
We encourage you to continue working through, implementing and validating the 15 solutions we have shared in previous bulletins. We also wanted to bring your attention to existing resources people have shared through the platform, which you may also want to verify and use where relevant. Over the next week, we will take decisions on those ideas submitted to our new challenges on end-to-end efficiency and alternative sampling, so that we can begin to share those we believe have potential.

Sue Hill
Chief Scientific Officer, NHS England

Jo Martin
President, Royal College of Pathologists

On behalf of the moderators' group.

OVER THIS WEEK: Testing Methods engagement session with NHS labs



The Pathology Alliance hosted its second interactive webinar on how the NHS can test at scale. The session covered:

- an update on the national testing strategy from David Wells, Head of Pathology
- an update on the two newest challenges, covering throughput and alternative approaches to sampling
- forward thinking – testing goals over the next weeks
- implementation opportunities for the RNA extraction, dry swabs and transport media challenges.

Recording available: Those who were unable to join us can watch the webinar on YouTube.

Next time: We are arranging the next webinar for the week commencing 25 May.

RECAP: Solutions in previous bulletins, and other resources shared via the platform

We included a list of 15 solutions currently shared through the platform in the previous bulletin. These all have potential and we have asked for labs to try and validate these as appropriate.

Additional ideas have been submitted on the platform which are already widely available. We have added these alongside the bulletin outputs to a 'catalogue of resources'. Even where these have been validated, we advise labs to take their own steps to review protocols.

Q&A from the testing engagement webinar

In each bulletin we will work through key questions you have asked us at engagement events

Q: The false negative rate of the RT-PCR test is often reported as high, potentially at a rate of 10–30%. What considerations should we make, and should we explore other options?

A: Contributing factors to false negatives in swab and PCR testing have been a significant part of the discussion we've had with the testing community. It will be helpful to consider alternative testing and sampling approaches in our live challenge. We do want to consider different options for testing, and we need the collective input of the pathology community to understand this.

Q: Is heat inactivation successful if you have used a viral inactivation solution to preserve nucleotides and downgrade sample handling to CL2?

A: Experience with heat inactivation shows that it is possible to use samples as CL2. The combination of heat inactivation after using other specific chemical solutions is not widely known and we will be interested to hear comments and about any experience of doing this.

Q: I am an advocate of pooling, but could manual pipetting when the disease is at a relatively high prevalence affect what can be offered at a mass scale?

A: Sample pooling is a concept that is being proposed, and widely discussed. Its role may be of use when the disease is at low prevalence, and we are following the experiences of laboratories adopting pooling closely. We will want to update the community in due course.

Q: Are you only focused on traditional molecular tests such a qPCR or are you also looking at implementing other approaches such as RT-LAMP or sequencing?

A: Several ideas regarding RT-LAMP and sequencing have been proposed on the platform, and we are interested in all solutions that can provide reliable, robust and scalable detection.