COVID-19 Testing Methods Bulletin No 7 – 15 June 2020

Dear Colleague

There have been many more promising contributions and ideas shared on the Testing Methods **crowdsourcing platform**, and so we are pleased to share a further eight potential solutions. These cover wide-ranging areas including multiplexing, saliva sampling and blood collection.

Between them, these solutions are promising and we hope can add value in supporting your work to increase and maintain testing capacity. Thank you for your help,

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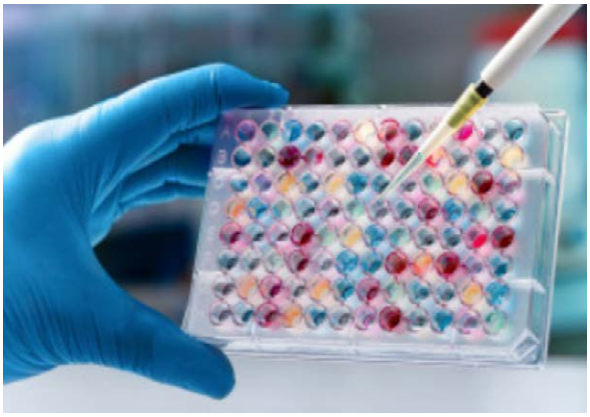
Sue Hill
Chief Scientific Officer, NHS England

Jo Martin
President, Royal College of Pathologists

On behalf of the moderators' group.

NEW SOLUTIONS: COVID Plus: Multiplexing with other pathogens



As we move towards the winter flu season, we must consider how to include COVID-19 viral detection into the wider respiratory virus and/or gastrointestinal virus testing regimes.

We asked for testing kits that will deliver multiplexed or syndromic respiratory and/or gastrointestinal viral detection and that will operate on either existing rapid turnaround laboratory platforms, existing near-patient care platforms or new technologies that can be deployed into NHS and Public Health England testing laboratories within 4–6 weeks.

1. AusDiagnostics multiplex PCR
2. Viasure Respiratory Pathogen Multiplex RT-PCR

NEW SOLUTIONS: Increasing end-to-end efficiency and speed of testing

After reaching the target of delivering 100,000 tests per day by the end of April, we need to continue to increase our capacity for testing.

We are looking for new methods for viral detection and identification that are high throughput and that will increase end-to-end efficiency and speed of testing and can be implemented and adopted quickly.

3. Rapid, high accuracy COVID-19 RNA test to dramatically improve the throughput of testing centres
4. Modular COVID-19 Testing Facilities

NEW SOLUTIONS: Alternatives to Swabs for Sampling

One of the significant constraints on current testing capacity is availability of swabs for sampling. We asked for alternative non-swab-based methods or techniques of sampling for the virus that have been used in other applications or contexts and that can be implemented rapidly. Examples could be, but are not limited to, use of saliva, faeces and potentially urine, as well as non-blood-based sample collection for antibody testing.

5. Saliva alternative – further insight
6. VirusPHIX™ RNA stabilisation and virus inactivation sample collection tubes
7. CE Marked Saliva collection device with sample protection and pathogen inactivation

NEW SOLUTIONS: Alternatives to Swabs for Sampling

Serology testing largely depends on formal phlebotomy. In order to expand serology testing into the broader community, we need to able to collect blood without the need for phlebotomy.

We are looking for examples where small volume blood collection, coupled with elution where relevant, can be used for COVID-19 antibody testing for immediate or very rapid rollout.

8. VL-Plasma device for separation and drying of plasma from fingerprick blood at point of care