

**WRITTEN QUESTION TO THE MINISTER FOR HEALTH AND SOCIAL SERVICES
BY DEPUTY M.R. HIGGINS OF ST. HELIER
ANSWER TO BE TABLED ON MONDAY 13th JULY 2020**

Question

Will the Minister –

- (a) provide a list of the different P.C.R. (polymerase chain reaction) and serology tests used by his Department for Covid-19, including details of the manufacturers and any variants, as well as their accuracy and the turnaround time for results;
- (b) provide a similar list for any such tests which the department has either considered and dismissed for use, or is currently considering but has not yet implemented; and
- (c) advise what measures, if any, is he taking to prepare nursing and residential homes not only for a prospective second wave of Covid-19 but also for other future pandemics?

Answer

PCR (polymerase chain reaction) tests

All on-island testing is performed using a Cepheid machine called a GeneXpert along with Cepheid test kits. Off-island testing is performed by two UK laboratories, Public Health England and Micropathology – both of these providers use a generic testing process called real time PCR which makes use of machines and reagents from a variety of manufacturers.

All PCR testing platforms used by the Jersey testing programme have been verified and validated, and have UK government approval. All laboratories involved are UKAS-accredited. The accuracy of results is comparable to those produced by Public Health England (PHE).

The current turnaround time from swab to result is on average 48 hours for passengers tested through the border programme. For the wider PCR testing programme, the time to results is on average 2-3 days. Certain groups have their swabs processed on-island with a turnaround time of 1-3 hours. This includes hospital inpatients, anyone with symptoms, the first test for direct contacts of positive cases, or as otherwise clinically indicated.

Serology (Antibody) tests

There are two different types of serology tests currently in use.

Point of care tests (also known as lateral flow devices) use a finger prick of blood and test for IgM and IgG antibodies. We use devices from two manufacturers – Healgen and CTK Biotech. These have been used in all 3 our antibody studies to date (longitudinal community testing programme, essential worker programme, border testing programme). The overall sensitivity of these devices is 90.00%, with an overall specificity of 99.39%. They have a turnaround time of 15 minutes from finger-prick sample to result.

Lab-based tests for antibodies require a blood sample to be taken and test primarily for IgG. These tests have been procured from two different companies, Abbott and Ortho Clinical Diagnostics and it is anticipated that this type of testing will be available on-island within the next few weeks.

The Ortho assay has a sensitivity of 93.5% for samples collected ≥ 21 days post-symptom onset and a specificity of 99.5%. The Abbott assay has a sensitivity is 93.5% for samples collected ≥ 21 days post-symptom onset and a specificity of 100%. Both assays have been deemed valid for use by PHE.

Time from sample to results is likely to be 1-2 days.

PCR (polymerase chain reaction) tests

A thorough review of PCR testing options was completed as part of the business case process. Considerations included high throughput machines to point of care tests, as well as real time PCR testing on-island. The criteria used to assess all of these options were: reliability; availability/lead time; high volume throughput capacity; time to results; and cost.

The result of this evaluation process was to identify the Cepheid GeneXpert machine as the best value option for on-island testing, in combination with the use of expert laboratory processing facilities off-island to increase capacity. Going forward, work is currently underway to implement real time PCR testing on-island with the aim of increasing the volumes of tests being processed and reducing the turnaround time to results.

Serology (Antibody) tests

Point of care tests: There are multiple lateral flow devices available for purchase, and a considerable number have been reviewed as possible options for use on Jersey. The two tests deemed to be the most accurate at the time of purchase (April 2020) were selected for use.

Lab-based tests: PHE has validated antibody tests for 6 different systems: Ortho Clinical Diagnostics¹, Roche, Abbott², Euroimmun ELISA, DiaSorin Liaison, Siemens. All are international manufacturers who have developed antibody tests within similar timescales, and all assays have similar levels of accuracy. The best value option Laboratory is Abbott and Ortho Clinical Diagnostics as we already have the platforms required to run these tests within our pathology laboratory.

The full list of COVID guidance and information for Providers of Regulated Activities can be found on the Jersey Care Commission³ website. This includes arrangements for Safe Exit Policy. The latest set of advice and guidance was published on the 3rd of July.

Testing for nursing and residential home staff and residents.

In order to protect our most vulnerable islanders from the risk of infection, a robust programme of PCR testing is in place for both staff and residents.

All care home residents have already been tested at least once, and the last positive case identified in a care home resident was at the end of March 2020. Anyone newly admitted to a care home is tested to prevent transmission within these communities.

As with all islanders, any care home worker with symptoms is advised to contact the health helpline to arrange for a PCR (swab) test. This test will be processed on island and the results available within 24 hours. All care home staff have been offered the opportunity to have a PCR test as part of the workforce screening programme and the vast majority have participated in this programme. Care home staff will continue to be tested on a 6-weekly basis with the aim of identifying and isolating any asymptomatic positive cases as soon as possible.

Support for care homes and homecare providers

Over the period April to June, there were daily weekday community cell meetings that included the Jersey Care Federation (JCF). There was also daily contact with providers. This included offering support with staffing if required, infection control, understanding their capacity and the impact of the infection. During this period, the PPE Cell was initiated, and free PPE was provided as requested in line with the guidelines. The workforce cell was also made available to providers and agency staff if required. As we have moved

¹https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/894173/Evaluation_of_OCD_Vitros_Immunodiagnostic_Anti-SARS_CoV2_total_antibody_serology_assay.pdf

²https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/890566/Evaluation_of_Abbott_SARS_CoV_2_IgG_PHE.pdf

³ <https://carecommission.je/covid-19/>

into recovery, we have continued a weekly community hub which has expanded, with 3 places for the JCF to represent both care home and homecare providers. The Jersey Care Commission is also a member. Terms of Reference are currently being agreed. In addition, we are contacting care homes weekly and are developing a simple form with the JCF, so there is good real time information which means that appropriate support can be directed as needed.