

# Canterbury

District Health Board

Te Poari Hauora o Waitaha

## CORPORATE OFFICE

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9(2)(a)

### RE Official information request CDHB 10358

I refer to your letter dated 17 July 2020 and received in our office on 21 July 2020, requesting the following information under the Official Information Act from Canterbury DHB regarding RT-PCR tests for COVID-19 in Canterbury. Specifically:

*I have a question about the testing being carried out for COVID-19 by Canterbury DHB (or with its guidance), at Community Based Assessment Centres (such as 24 hr Surgery, Christchurch Hospital and Moorhouse Medical in Central Christchurch, or at Ashburton Hospital, Riccarton Clinic, Whanau Ora Community Clinic and by Rapid mobile response), or at Pak 'n' Save on Moorhouse Avenue back in April.*

*I understand these are RT-PCR (Reverse Transcription Polymerase Chain Reaction) tests, which test for the presence of certain kinds of genetic material in cells taken from the patient's body, particularly from the nose and throat, by way of nasal or throat swabs, or in a sputum sample. I understand that there are different ways to administer these tests, and that Canterbury DHB is following the 'Berlin protocol' in their testing.*

*From what I can gather, patients are initially given 'screening' tests, which are designed to detect the presence or absence of an 'E-gene'. This is a gene which is present in the family of coronaviruses and consists in code giving instructions for the construction of the virus' 'envelope'. A positive result from such a 'screening' test confirms at most that a 'SARS-like coronavirus' is present in the patient's cells: it does not indicate that they have been infected with COVID-19 specifically.*

*For this a 'confirmatory' test must be done, which is designed to detect the presence of the 'RdRp' (RNA dependent RNA polymerase) gene. It is only if the 'confirmatory' test comes up positive that the patient can be deemed to have contracted COVID-19.*

*(Apparently some government and private organisations carry out similar 'screening' tests using RT-PCR but focusing on the 'N-gene'. However, to my knowledge Canterbury DHB is not currently using this approach).*

**1. Can you confirm for me that the preceding assumptions are correct?**

Yes, your understanding of the process is correct see further response below. **Please note** COVID-19 is not a virus but a disease, the correct term is SARS CoV-2.

With COVID testing, the terminology of screening and confirmatory tests is not applied in the traditional sense of a “screening” test followed up by a “confirmatory” test. The sensitivity of the COVID test depends on the platform and is interpreted in relation to the individual’s clinical presentation.

**a. If not, can you fill me in on how the testing being done by Canterbury DHB differs from what I have described?**

**Assuming the above information is correct, I would like to know, as regards the RT-PCR tests carried out by Canterbury DHB, or with its guidance;**

The initial RT-PCR used at CDHB (CHL, Virology department) was the E-gene assay as described by Drosten et.al (Berlin protocol as referred to by Mr O’Meara) with RdRp PCR confirmation of positives as recommended in the published protocol. This assay has been used in conjunction with commercial assays including A\*STAR Fortitude, Abbott RealTime and GeneXpert SARS-CoV-2 assay and their use is determined by availability of reagents.

**2. Since the beginning of 2020, roughly what proportion have been ‘screening’ tests, and what proportion ‘confirmatory’ tests?**

From 03/02/20 to 30/07/20, Canterbury DHB has performed 42,108 SARS CoV-2 tests on samples from patients in the Canterbury region.

We are not able to separate out what proportion of these tests were ‘screening’ tests and ‘confirmatory’ tests. We are therefore declining to provide this detail pursuant to section 18(f) of the Official Information Act. This data is not easy for us to extract and would require a substantial amount of time and resource.

**3. And, of the patients recorded in the Canterbury region as positive for COVID-19, what proportion tested positive on a ‘confirmatory’ test, and what proportion merely tested positive on a ‘screening’ test, or were written up as a ‘probably case’ based on conjecture referring to their travel history or recent contacts?**

Of the 42,108 SARS-CoV-2 tests performed on samples from patients in Canterbury, there were 125 tests with a positive result. If SARS-CoV-2 testing is considered by number of patients rather than number of tests, there were 38,643 patients tested between 03/02/20 to 30/07/20 and 112 patients were positive for SARS-CoV-2.

**“Probable Case”**

*“Of the patient tested positive for COVID-19 in Canterbury, none were “written up as ‘probably case”.*  
*The case definition for a probable (not probably) case is:*

- *A close contact of a confirmed case that has a high exposure history, meets the clinical criteria and for whom testing cannot be performed, or*
- *A close contact of a confirmed case that has a high exposure history, meets the clinical criteria, and has a negative PCR result but it has been more than 7 days since symptom onset before their first negative PCR test was taken.*

*There were 65 probable cases in the Canterbury region in the period covered by your inquiry.*

I trust this satisfies your interest in this matter.

You may, under section 28(3) of the Official Information Act, seek a review of our decision to withhold information by the Ombudsman. Information about how to make a complaint is available at [www.ombudsman.parliament.nz](http://www.ombudsman.parliament.nz); or Freephone 0800 802 602.

Please note that this response, or an edited version of this response, may be published on the Canterbury DHB website after your receipt of this response.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Carolyn Gullery', with a long horizontal flourish extending to the right.

Carolyn Gullery  
**Executive Director**  
**Planning & Funding & Decision Support**