

12 February 2021

Andre

**By email:** [fyi-request-14250-167d2513@requests.fyi.org.nz](mailto:fyi-request-14250-167d2513@requests.fyi.org.nz)

Dear Andre

**Official Information Act Request: COVID-19 PCR cycle thresholds**

On 6 December 2020 you sent a request under the Official Information Act 1982 to the Ministry of Health, who transferred your request to ESR on 11 January 2021. Your request was as follows:

*“What’s the Cycle Threshold (CT) value used to perform the PCR test for COVID19; what changes by date have been made to the (Cycle Threshold (CT)) value per lab for this test (COVID19 ) since the start of testing in New Zealand.”*

**Our response to your request:**

Many PCR tests generate a number as part of the test result. For real-time PCR, this is called the Ct or “cycle threshold” value. A Ct value is defined as the number of amplification cycles required to reach a fixed background level of fluorescence at which the diagnostic result of the real-time PCR changes from negative (not detectable) to positive (detectable). The total number of cycles required to exceed the established threshold to call a result positive is specific to that test platform. We report that the PCR is "SARS-CoV-2 RNA detected" when two different PCR targets (regions within the SARS-CoV-2 genome) have Ct values below 40 cycles.

The Ct parameters are determined by the test manufacturer and cannot be altered by the laboratory performing the test. The test manufacturers for the tests used in NZ laboratories have not changed the Ct parameters since the start of testing in New Zealand.

**Your right to seek a review**

You have the right to seek an investigation and review by the Ombudsman of this decision. Information about how to make a complaint is available at [www.ombudsman.parliament.nz](http://www.ombudsman.parliament.nz) or freephone 0800 802 602.

Thank you for your request.

Yours sincerely



Jill Vintiner

**Joint General Manager Health and Environment Group – Health  
ESR**