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Public Health
Wales

Freedom of Information request to Public Health Wales

FOI Reference:	FOI 537
Date request received	8th December 2020
Date information is due to be sent	8th January 2021

Information Requested:

Dear Public Health Wales,

You have missed your legal responsibility to respond promptly to my request. Can you please expediate this enquiry.

Yours faithfully,

-----Original Message-----

Freedom of Information request - Cycle threshold values of positive PCR tests for Covid-19
Dear Public Health Wales,

I have a number of questions related to using the PCR test to diagnose Covid-19:

- 1) Can you tell me the distribution of cycle thresholds used to provide a positive PCR test? In other words, what percentage of positive tests came at what cycle threshold value?
- 2) Have you undertaken any viral culture to cross reference with cycle threshold values? If so, what are the results? Additionally, if you have any information about the proportion of culturable samples by cycle threshold can you please provide those.
- 3) Can you please the approximate false positive and false negative rates for your PCR test? Does this vary with cycle threshold?

Information provided for the answer:

Thank you for your recent request.

1.The table below gives the breakdown of Ct values for the tests performed in Welsh Laboratories in October.

Ct Range	% of Tests
11-20	17.6
21 - 30	58.1
31 - 40	23.8
41-45	0.5

2.We have not undertaken viral culture in Welsh NHS laboratories.

3.The false positive and false negative rates are determined by the sensitivity and specificity of the test, but also the prevalence of the condition within the test population that is being tested for. The sensitivity and specificity do change with cycle threshold; generally the sensitivity increases and specificity decreases as the Ct values decreases.

If you are unhappy with the service you have received in relation to your request and wish to make a complaint or request a review of the decision, you should write to the Corporate Complaints Manager, Public Health Wales NHS Trust, 3, Number 2, Capital Quarter, Tyndall Street, Cardiff, CF10 4BZ.

If you are not content with the outcome of your complaint or review, you may apply directly to the Information Commissioner for a decision. Generally, the ICO cannot make a decision unless you have exhausted the complaints procedure provided by the Trust. The Information Commissioner can be contacted at:

Information Commissioner for Wales

2nd Floor
Churchill House
Churchill Way
Cardiff
CF10 2HH

Telephone: 029 2067 8400

Email: wales@ico.org.uk