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Iechyd Cyhoeddus  
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Public Health  
Wales

## Freedom of Information request to Public Health Wales

<b>FOI Reference:</b>	<b>FOI 415</b>
<b>Date request received</b>	<b>23 August 2020</b>
<b>Date information is due to be sent</b>	<b>18 September 2020</b>

### Information Requested:

Please could you provide answers to the following? If this information is not held by PHW could you direct me to the appropriate source for answers please?

1. With regard to "Corona virus cases":

i. What is the definition of a "case"?

ii. How are "cases" identified?

iii. Which of the seven corona viruses know to affect humans are being referred to?

2. With regard to Covid19, as this has not yet been scientifically proven to exist (see reference below please):

i How is this disease being diagnosed?

ii. What criteria must be satisfied for someone to be considered as suffering from Covid19?

iii. What is the direction to those certifying/registering deaths with regard to recording deaths as associated with Covid19?

3. With regard to RT-PCR testing (see second reference below):

i. What types/brands of test are being used in Wales?

ii. What is the false positive rate of the tests being used?

- iii. How are tests counted e.g are multiple swabs from the same individual at the same time counted as separate tests?
- iv. Are the PCR tests in use in Wales specific to SARS-Cov2 and do they exclusively detect material from this virus?
- v. Does the Department count all positive test results as "cases"?
- vi. Does the Department consider a positive test, whether with or without Covid19 symptoms, to be a diagnosis of this disease?
- vii. How, if at all, does the testing regime mitigate for the now widely held belief that shedding of SARS-Cov2 virus/virus debris can continue for up to 12 weeks post infection i.e 10 weeks after a Covid19 patient has ceased being infectious?
- viii. Are all of those who test positive for SARS-Cov2 considered by the department to be infectious?
- ix. Are the PCR tests being used in Wales detecting whole SARS-Cov2 virions or only fragments of virus material?
- x. Are the PCR tests in use able to distinguish between viable virions and inert virus material?
- xi. What is the cycle cut off point for PCR tests being used?
- xii. Are the PCR tests in use able to determine viral load and infectivity?

4. With regard to R0:

- i. What is the methodology and dataset being used to determine R0?

5. With regard to facemasks:

- i. Please provide references to the scientific research and advice underpinning the mandating of mask wearing.
- ii. Given that compelling people to wear certain items of PPE (on public transport) and to behave in a way they might not do, if permitted to choose freely, engages fundamental rights & freedoms assured by international and domestic law, please provide evidence that the required necessity and proportionality tests were applied before legislating (reference to a simple statement from the First Minister that both were applied will not be considered as a valid response).

**Information provided for the answer:**

- 1. With regard to "Corona virus cases":
  - i. What is the definition of a "case"? – [current case definition followed is a uniform UK wide case definition as agreed by the 4 Chief Medical Officers of the UK nations. This can be accessed under section 2.1 and 2.2 in this link](#)

<https://www.gov.uk/government/publications/wuhan-novel-coronavirus-initial-investigation-of-possible-cases/investigation-and-initial-clinical-management-of-possible-cases-of-wuhan-novel-coronavirus-wn-cov-infection>

ii. How are "cases" identified? – Through a combination of screening, clinical assessment and laboratory confirmation.

iii. Which of the seven corona viruses know to affect humans are being referred to? SARS Co-2 virus, the causative agent of COVID-19 belongs to the group of coronaviruses

2. With regard to Covid19, as this has not yet been scientifically proven to exist (see reference below please):

i How is this disease being diagnosed? - Through a combination of screening, clinical assessment and laboratory confirmation.

ii. What criteria must be satisfied for someone to be considered as suffering from Covid19? Clinical and laboratory diagnostic criteria as defined in the case definition must be satisfied

iii. What is the direction to those certifying/registering deaths with regard to recording deaths as associated with Covid19? Definitions used currently for recording mortality associated with COVID19 are : (1) For the purposes of rapid mortality surveillance - COVID-19 should be clinically suspected as contributing to the death. There should be no more than 28 days (inclusive) between the date of death and the date of a prior positive test result. Provided there is a clinical suspicion that COVID-19 was a contributing factor in the death, it does not matter if there have been negative test results during the 28 days between the most recent positive test result and death. We are allowing some discretion for deaths which occur more than 28 days after the last positive test result , if there is a high degree of suspicion that COVID was still a contributing cause. (2) Office for National Statistics (ONS) also publish reports on COVID-19 deaths as a comprehensive mortality statistic. They use a slightly different methodology which can be accessed on their website through this link -

<https://blog.ons.gov.uk/2020/03/31/counting-deaths-involving-the-coronavirus-covid-19/>

3. With regard to RT-PCR testing (see second reference below):

i. What types/brands of test are being used in Wales?

The platforms currently used in Wales NHS laboratories are: Luminex Aries, BioFire, Bosphore, Cepheid, ePlex, Hologic, in-House, Perkin Elmer, Roche, SeeGene Starlet/Nimbus.

ii. What is the false positive rate of the tests being used?

The false positive rate is dependent on the disease prevalence. The minimum specificity of the platforms being used has been calculated as 99.91%.

iii. How are tests counted e.g are multiple swabs from the same individual at the same time counted as separate tests?

Welsh sampling guidance is for a single dry throat swab to be taken from an individual. Each swab test is counted as a test. Our daily dashboard shows the number of tests carried out as well as the number of individuals tested.

iv. Are the PCR tests in use in Wales specific to SARS-Cov2 and do they exclusively detect material from this virus?

Yes

v. Does the Department count all positive test results as "cases"?

Individuals may be tested more than once for COVID-19. Cases are counted based on a 6-week episode period. If an individual is tested more than once within a 6-week period they are only counted once, and if any of their test results are positive, that is the result that is used.

vi. Does the Department consider a positive test, whether with or without Covid19 symptoms, to be a diagnosis of this disease?

An individual who has a positive result is counted as a case, irrespective of whether they have symptoms at the time of the test.

vii. How, if at all, does the testing regime mitigate for the now widely held belief that shedding of SARS-Cov2 virus/virus debris can continue for up to 12 weeks post infection i.e 10 weeks after a Covid19 patient has ceased being infectious?

Re-testing is not recommended for 90 days following a positive result in asymptomatic individuals. If someone develops symptoms in the 90 days following a positive result, re-testing may be considered.

viii. Are all of those who test positive for SARS-Cov2 considered by the department to be infectious?

No. If the result is a 'low positive' (determined by the number and type of targets tested and their respective CT (Cycle Threshold) values), and the patient is asymptomatic more than 14 days since symptom onset, and has mounted an immune response, they are unlikely to be infectious.

ix. Are the PCR tests being used in Wales detecting whole SARS-Cov2 virions or only fragments of virus material?

The tests detect viral RNA.

x. Are the PCR tests in use able to distinguish between viable virions and inert virus material?

No

xi. What is the cycle cut off point for PCR tests being used?

The various platforms use have different criteria for positivity depending on the targets, the number of targets, and their respective CT (Cycle Threshold) value for each target. The CT values are not directly comparable between all platforms.

xii. Are the PCR tests in use able to determine viral load and infectivity?

As above, the PCR test results can be used as part of the determination of infectivity.

4. With regard to R0:

i. What is the methodology and dataset being used to determine R0? – This is described in detail in the publication of the Welsh Government’s Technical Advice Cell and can be accessed at - <https://gov.wales/sites/default/files/publications/2020-05/technical-advisory-cell-modelling-update.pdf>

5. With regard to facemasks:

i. Please provide references to the scientific research and advice underpinning the mandating of mask wearing.

ii. Given that compelling people to wear certain items of PPE (on public transport) and to behave in a way they might not do, if permitted to choose freely, engages fundamental rights & freedoms assured by international and domestic law, please provide evidence that the required necessity and proportionality tests were applied before legislating (reference to a simple statement from the First Minister that both were applied will not be considered as a valid response).

The use of medical face masks as part of personal protective equipment for health and social care workers is laid out in the UK COVID-19 IP&C guidance available at the link below – Public Health Wales is represented on the 4-Nation group that develops the guidance – the guidance is referenced and evidence based.

<https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control>

Welsh Government are responsible for issuing guidance on face coverings, so for a full response you would need to contact them. The evidence used by WG to underpin their policy position on public use of face coverings is the WHO guidance available at the link below. Public Health Wales also endorses the guidance from WHO. The technical documents specifying the WHO guidance can be found at the bottom of the web-page linked below, but have also attached latest two for information.

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/when-and-how-to-use-masks>



WHO-2019-nCov-IP  
C\_Masks-2020.4-eng



WHO-2019-nCoV-IP  
C\_Masks-Children-2

Please note, the hyperlinks included above were last accessed on 30 September, in case guidance has changed during that time.

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](mailto:wales@ico.org.uk)