

RAPTOR – a general guide

A video recording going over the same points is available here:

<https://www.youtube.com/watch?v=iGXNofYws9A>

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STEP 1 – identify eligible patients

Eligibility:

- Patients with covid-like symptoms (any symptoms associated with covid that may lead the clinician to suspect a covid infection) can be recruited ([protocol](#) v.5, p16-7)
- Patients must be tested within the first 5 days of symptom onset for the BD veritor, but any symptomatic patients can be tested using the SD Biosensor.
- Patients with recurring covid-like symptoms can be recruited into the study, but can only participate once

- Patients who have tested positive for covid are no longer symptomatic, or have not developed symptoms, are not eligible for the study at the moment
- Patients who have come into contact with someone who has tested positive can only be included if they also develop symptoms (but this may be a useful avenue to identify potential participants)
- Patients who are in immediate need of hospitalisation, or who are unable to understand and consent to the study, are not eligible
- In all cases, if in doubt please refer to the product Information For Use (IFU form), and follow the product guidelines

- Children can be included in the study, with parental/guardian consent, but will not be required to provide a serology reference sample if they are under 16 years old

- Patient information sheets for the different age groups can be found here: https://www.condor-platform.org/condor_workstreams/raptor

Identification:

- Opportunistic recruitment: patients who report covid-like symptoms to the practice could trigger research prompts (e.g. pop-up on patient record)
- Searching patient records for recent positive covid test results
- Patient self-identification: provide information about the study on practice website, social media, posters within the practice, on the practice recorded telephone message
- See here for tips on maximising recruitment: https://www.condor-platform.org/condor_workstreams/raptor/raptor-tips-for-maximising-recruitment

STEP 2 – patient consent

Steps:

- Add patient to uMed platform
 - o Note: write +44 at the beginning of the contact phone number, not 44, for UK numbers
- Ensure the patient has read and understood the patient information leaflet, relevant to their age group (available on the RAPTOR website: https://www.condor-platform.org/condor_workstreams/raptor)
- Run through all steps of the eCRF
 - o recorded uMed training webinar: <https://youtu.be/Lfgt0IKc1Z8>
 - o written guide: <https://www.condor-platform.org/files/raptor/umed-user-guide-raptor.pdf>

Training:


- uMed training guide: https://www.condor-platform.org/condor_workstreams/raptor/raptor-umed-information-for-clinicians

STEP 3 – Point of care tests (POCTs)

- RAPTOR website with links: https://www.condor-platform.org/condor_workstreams/raptor/raptor-information-for-clinicians
- Always please read the IFU for product use and for more information

BD veritor:

- Patient must be tested within 5 days of symptom onset
- Training video: https://www.youtube.com/watch?v=7llldt_QkdI
- Please visit the product website for further training videos, and link to download the IFU under the 'Resources' tab: <https://www.bd.com/en-uk/products/diagnostics-systems/point-of-care-testing/bd-veritor-system-for-rapid-detection-of-sars-cov-2>
- Steps:
 - o Take nasal swab following the IFU instructions (p4):

<ol style="list-style-type: none">1. Insert swab into one nostril of the patient. The swab tip should be inserted up to 2.5 cm (1 inch) from the edge of the nostril. Roll the swab 5 times along the mucosa inside the nostril to ensure that both mucus and cells are collected.2. Using the same swab, repeat this process for the other nostril to ensure that an adequate sample is collected from both nasal cavities.3. Withdraw the swab from the nasal cavity. The sample is now ready for processing using the BD Veritor System SARS-CoV-2 kit. The swab should be processed in the extraction reagent vial within one hour.	 <p>NOTE: The BD Veritor System Kit includes swabs for nasal specimen collection.</p>
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1. Insert swab into one nostril of the patient. The swab tip should be inserted up to 2.5 cm (1 inch) from the edge of the nostril. Roll the swab 5 times along the mucosa inside the nostril to ensure that both mucus and cells are collected.

2. Using the same swab, repeat this process for the other nostril to ensure that an adequate sample is collected from both nasal cavities.

3. Withdraw the swab from the nasal cavity. The sample is now ready for processing using the BD Veritor System SARS-CoV-2 kit. The swab should be processed in the extraction reagent vial within one hour.

- o Remove lid from liquid reagent tube and insert swab
- o Plunge swab in the reagent for at least 15 seconds being careful not to spill any liquid
- o Remove swab while squeezing the sides of the tube
- o Place nozzle on the reagent tube and ensure the liquid is mixed by swirling or flicking the end of the tube
- o Gently squeeze 3 drops of the reagent on to the sample well of the test device
- o Allow 15 minutes to pass before inserting the test device into the BD Veritor analyser
- o Turn the BD veritor on by pressing the blue button and insert the test device after the 15 minutes of waiting time is complete
- o Follow the on screen instructions until the test result appears in the window
- o Record the result before removing the test device

SD Biosensor

- For symptomatic patients
- Product website: <http://sdbiosensor.com/xe/product/7672> (including link to download IFU with detailed instructions)
- Steps:
 - Insert the swab into the nostril of the patient, reaching the posterior nasopharynx
 - Using gentle rotation, push the swab until resistance is met at the level of the turbinate
 - Rotate the swab gently against the nasopharyngeal wall a few times
 - Carefully remove the swab
 - Insert the swab into the buffer tube and squeeze while rotating at least 5 times
 - Remove the swab while squeezing the sides of the tube
 - Place the nozzle on the tube
 - Apply 3 drops of liquid to the sample well of the test device
 - Read the result between 15-30 minutes later (outside of this time bracket may give false results)
 - The control line (C) will appear if the test is valid
 - A test line (T) will appear if the test result is positive

STEP 4 – virology reference swab

Swab processing:

- Take a nose and throat swab sample using the swab provided
- Insert the swab into the tube and break off the tip before securing the lid on
- Place the sample tube inside the packaging tube bottom first with the green lids on the same side:



- Place back in box with the completed form:
 - The **RCGP RAPTOR STUDY PHE Microbiology request form**, should be complete with the correct practice address (please check before continuing), project code and barcode.
 - Please complete the form **IN FULL**
 - Please take extra care to ensure that the **patient NHS number, name, DOB, RAPTOR ID, and date of sample collection** are complete and correct (the patient RAPTOR ID should be at the top of their consent form)
- Insert into envelope addressed to the Colindale lab in London and post in a priority post box:

*Virus Reference Department
61 Colindale Avenue
London
NW9 5HT*

STEP 5 – serology reference test

- For patients >16 years old only
- Record on uMed platform
- Please fill in the RAPTOR serology form IN FULL
- Circle 'Visit one (baseline)' under 'Time point'
- Please take extra care to ensure that the **form** includes: the **patient NHS number, name, DOB, sex, the date the sample was collected, and the practice name.**
- Please ensure that the sample **tube** is clearly labelled with the **patient RAPTOR ID, NHS number and name**, plus the patient DOB, sex, the date the sample was collected, and practice name (if printed on a label).





RAPTOR participant ID = the participant identifier number on the uMed participant record (see the top of the page when clicked in to a participant's records).

RAPTOR site ID = unique site code assigned by the RAPTOR project, NOT the practice code. The site ID can be found at the top of a completed participant consent form. Go to a participant record and click on:

'Form status' -> 'Study forms' -> 'View answers' -> 'download form'

The top of the form should have the study code, site identifier, and participant identifier at the top, e.g.:

RAP – [RAPTOR site ID] – [RAPTOR participant ID]

	NUFFIELD DEPARTMENT OF PRIMARY CARE HEALTH SCIENCES			Royal College of General Practitioners <small>Advancing & Sustaining General Practice</small>
	RAPTOR-C19 Study Team Nuffield Department of Primary Care Health Sciences Radcliffe Primary Care Building - University of Oxford Woodstock Rd Oxford OX2 6GG Chief Investigator: Prof Richard Hobbs Email: RAPTOR@phc.ox.ac.uk			
Study code	Site Identifier	Participant Identifier		
<input type="text" value="RAP"/>	<input type="text" value="004"/>	<input type="text" value="000014"/>		
Consent Form RAPid Testing FOR Covid-19 (RAPTOR-C19)				

Sample processing:

- Please take approximately 10ml of blood from the patient using the enclosed tube
- Please place the sample tube into the packing tube with the lids at the same end



- Place back in the box with the form
- Insert the box into the envelope addressed to:

*Vaccine Evaluation Unit
MMMP
2nd Floor CSB2
PO Box 209
Manchester Royal Infirmary
Oxford Road
Manchester
M13 9WL*

- Post on same day as sample collection. If posting the same day is not possible, the sample can be refrigerated for one night only.

STEP 6 – follow-up blood test

- Please arrange for the patient to return for a follow-up blood sample in 28 days (+/- 2 days)
- Complete the serology test as in Step 5, but circle the 'Visit 2 (day28)' time point option

STEP 7 – check uMed

- Please check that all the correct information has been coded into uMed to complete the patient records
- This is extremely important as incomplete participant records may affect the funding that can be received for recruiting each participant