RAPid Testing fOR Covid-19 (RAPTOR-C19) FAQs V2

1. **What is the purpose of this study?**
   The aim of this study is to evaluate a variety of rapid diagnostic tests (Point of Care Tests) for COVID-19 in comparison to antigen swab tests and antibody blood tests (processed at a Public Health England Reference laboratory) that are accurate enough to use in the community.

2. **What is the working definition of COVID-19?**
   The working definition of suspected current or past COVID-19 infection will be based on the current advice to consider COVID-19 infection in people who during the COVID-19 pandemic have:

   a. symptoms thought to be associated with COVID-19, including but not limited to: fever, cough, fatigue, dyspnoea, sputum production, anosmia, change in sense of taste, shortness of breath, myalgia, chills, dizziness, headache, sore throat, hoarseness, nausea, vomiting, diarrhoea, nasal congestion

   b. acute respiratory distress syndrome

   c. either clinical or radiological evidence of pneumonia

   d. atypical presentations, for example an acute functional decline or frailty syndrome in an older person, if they are immunocompromised

   e. lived or worked in close contact with somebody who has tested positive for COVID-19, including NHS staff

3. **What is the study design?**
   RAPTOR-C19 incorporates a series of prospective observational parallel diagnostic accuracy studies of COVID-19 POCTS against laboratory and composite reference standards in patients with suspected current or past COVID-19 attending community settings such as NHS general practices enrolled with the RCGP-RSC and national COVID-19 testing centres.

4. **What are the objectives of this study?**

Objectives	**Outcome Measures**
Primary Objectives 1. Assess the diagnostic accuracy of multiple current and emerging point-of-care tests (POCTS) for active COVID-19 infection in the community setting.	1. "Standard" diagnostic accuracy of POCTs for <u>active</u> COVID-19 infection with reference to the Public Health England (PHE) reference standard.
Secondary Objectives 2. Assess the diagnostic accuracy of multiple current and emerging (POCTS) for past	2. Standard diagnostic accuracy of (POCTS) for past COVID-19 infection

COVID-19 infection in the community setting. 3. Assess the diagnostic accuracy of multiple current and emerging (POCTS) for active COVID-19 infection in the community setting against a composite reference standard. 4. Assess the diagnostic accuracy of multiple current and emerging (POCTS) for past COVID-19 infection in the primary care setting against a composite reference standard.	with reference to the PHE reference standard. 3. Enhanced diagnostic accuracy of POCTs for active COVID-19 infection assessed against a composite reference standard using multiple tests data, linked EHRs data, and patient reported outcomes data. 4. Enhanced diagnostic accuracy of POCTs for past COVID-19 infection assessed against a composite reference standard using multiple tests data, linked EHRs, and patient reported outcomes data.

5. **When is this expected to start?**
   We hope to be up and running at the beginning of July 2020.

6. **When does this study end?**
   The end of study will be the last data capture for the last participant for the last test evaluated. Recruitment will end once an adequate sample size has been reached based on the number of COVID-19 cases that have been detected.

7. **Who is the lead organisation?**
   University of Oxford

8. **Who is the funder for this study?**
   UKRI

9. **Who is the sponsor for this study?**
   University of Oxford

10. **Does this study have IRAS approval?**
    Yes, approval was granted in June 2020, IRAS project ID: 284320.

11. **Will there be CRN assistance available to us?**
    Yes, you will be able to access CRN support if you want it.

12. **Where will this study take place?**
    This study will take place in community settings such as NHS general practices enrolled with the RCGP-RSC and national COVID-19 testing centres

13. **We are currently not taking bloods or are doing bloods from an alternative site/hub, can we still take part?**
    No, as we need adult participants (≥16 years old) to have blood taken at the same time as the Point of Care Tests.

14. **We are a non-virology practices can we take part?**
    In the first instance we are focusing on high throughput virology practices. We may branch out to other practices at a later date.

15. **We are a non-RSC practices can we take part on the condition we sign up to the RSC?**
    All practices taking part must be signed up to RSC. If practices outside of the RSC are interested to take part they must register to join (we will not open all sites who send in an EOI but we need to prepare each potential site).

16. **Will we receive any payment for recruiting participants?**
    The practice will be paid £140 per patient in research support costs. This payment is to cover all associated costs e.g. consenting, taking samples, postage, lab tests, phone calls, etc. Payment will be made at the end of the study once all study related materials and equipment have been returned to the study team and the POCT manufacturers. The practice can also access CRN support if they need it.

17. **Apart from the per patient payment, what are the benefits to the practice in taking part in this study?**
    This study has the benefit of increasing the testing capacity for patients with suspected COVID-19 infection in the community. This may help guide clinical decision making, household isolation behaviours and quantify risks e.g. if that patient requires face to face contact with a healthcare professional. If an effective POCT is identified this could be hugely helpful in making real-time decisions about COVID-19.

18. **How many participants will be recruited to the study?**
    Recruitment numbers are dependent on the diagnostic tests under evaluation, but the range of expected participants is 500 to 1000 per Point of Care Test. However, this might increase if the number of cases of COVID-19 that are diagnosed is lower than expected.

19. **What are the benefits to the participants in taking part**
    Participants will be informed whether they have, or have had, a COVID-10 infection. However, the main benefit is for health care professionals and public health officials to know which of the new rapid tests they can use to better identify cases quickly and block further spread of coronavirus in the community.

20. **Who is eligible to participate?**
    Adults (≥16 years old)
    - males or females
    - with suspected current or past COVID-19 infection
    - having OP/NP swab for laboratory COVID-19 RT-PCR as part of clinical care/testing

- willing and able to give informed consent for participation in the study

Children (< 16 years old)

- males or females
- with suspected current COVID-19 infection
- having OP/NP swab for laboratory COVID-19 RT-PCR as part of clinical care/testing
- parent or legal guardian is willing and able to give informed consent for participation in the study

21. How do I identifying eligible patients?

Potential participants may be assessed for eligibility if they meet the following criteria:

- current infection
  a. they attend or contact the RAPTOR-C19 site in relation to suspected current COVID-19
  b. clinical suspicion of current COVID-19 occurs during an assessment for an unrelated problem
  c. current infection is suspected through EHRs review
  d. they have been in close contact with a positive COVID-19 case
  e. they respond to study promotional materials

- past infection (adults (> 16) only)
  a. they have previously been assessed for active infection as part of this study or have a previous positive result for active infection from a separate encounter
  b. clinical suspicion of past COVID-19 occurs during an assessment for an unrelated problem
  c. past infection is suspected through EHRs review
  d. they have been in close contact with a positive COVID-19 case
  e. they respond to study promotional materials

22. What is the procedure for Informed consent in the current circumstances?

Informed consent will be obtained in line with Good Clinical Practice (GCP) guidelines. It is imperative that all non-essential contact between the participants, researchers, and practice staff is prevented in order to minimise the risk of COVID-19 transmission.

To achieve this, we will use a combination of digital written consent and/or researcher recorded verbal consent in this study. Written information will be available in the form of posters at RAPTOR-C19 sites and as multimedia content provided by the uMed platform and RAPTOR-C19 Tablet.

The eCRF will guide the participant or the participant's parent/guardian, through the following consent questions, or the researcher will read out the following questions from the eCRF recording the participants' responses in the eCRF:

Consent Statement	**Initials**

1. I have read and understand the study information and/or understand the study information as read to me (Version 1.0 dated 01/06/2020). I have had the opportunity to ask questions and have had these answered satisfactorily.		
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my medical care or legal rights being affected.		
3. I agree to give samples for this research. I consider these samples a gift to the University of Oxford and I understand I will not gain any direct personal or financial benefit from them.		
4. I agree that the research team will be informed about the laboratory COVID-19 test results.		
5. I understand that relevant sections of my medical notes and data collected by the study team may be looked at by authorised individuals from The University of Oxford, NHS organisations, and research governance monitors. I permit these individuals to access my research records.		
6. I agree that the information held and maintained by Public Health England and NHS Digital may be used to provide information about my health status.		
7. I agree to take part in this study.		
Additional and optional		
8. I agree for my anonymised samples to be used in future research, here or abroad, which has ethics approval. I understand this research may involve commercial organisations.	Yes	No
9. I agree to be contacted about ethically approved research studies for which I may be suitable. I understand that agreeing to be contacted does not oblige me to participate in any further studies.	Yes	No

The participant will be allowed as much time as wished to consider the information, and the opportunity to question the researcher or other independent parties to decide whether they will participate in the study. All answers will be stored electronically and securely. Only if the participant answers yes to statements 1-7, 9 and ten will they be included in the study.

What will the participants be asked to consent to?

- Adult patients (≥ 16 years old) with suspected current or past COVID-19 will be asked to consent to:
    - answer a short questionnaire about eligibility and their clinical details
    - use at least one, but the intention is to assess multiple, POCTs for COVID-19
    - agree to results of their clinical test being shared with researchers
    - submit blood samples for PHE COVID-19 laboratory antibody testing
    - the study team accessing their NHS EHRs for one year.
    - further contact from the study team to track symptoms and health status (daily after the first study visit until the second visit)
    - a second visit for additional blood sampling

- The parent or legal guardian of children (< 16 years old) with suspected current COVID-19 will be asked to provide parental consent on behalf of their child who is having an OP/NP swab for laboratory COVID-19 RT-PCR clinically to:
    - answer a short questionnaire about eligibility and their clinical details
    - use at least one, but the intention is to assess multiple, POCTs for COVID-19
    - agree to results of their clinical test being shared with researchers
    - the study team accessing their child's NHS EHRs for one year
    - further contact from the study team to track symptoms and health status (daily after the first study visit for 28 days)

23. What will the baseline assessments be?

For adults (≥16 years old), study visits will follow the same protocol whether current or past COVID-19 infection is suspected: the analysis will be different. In each instance, the baseline visit will involve the POCT(s) under evaluation and both antigen and serology tests for laboratory reference testing; the second visit will be for additional serology. For children (< 16), as only those with suspected current COVID-19 will be included, only a single baseline visit will be required. An electronic case report form (eCRF) will be used to capture the data.

The following data will be collected for each participant:

1. Study site number
2. Participant number
3. Consents
4. Identifiers for linkage and analysis (to be encrypted)
5. Spectrum of disease data (symptoms, comorbidities, previous COVID-19)
6. Test data (Point of Care Tests, laboratory tests, and sequencing)

24. What are the exclusion criteria to participation?

The participant may not enter the study if ANY of the following apply:

- adults unable to understand the study information and give consent to take part in the study
- need for immediate hospitalisation
- previously enrolled in this study in relation to the individual test being evaluated

25. Can a participant change their mind after they have consented?

Yes, participants can decide that they no longer want to participate. They do not need to provide an explanation.

26. Can I discontinue/withdraw a participant from the study?

Each participant has the right to withdraw from the study at any time. Withdrawn participants will not be replaced. Participants are not required to give a reason for withdrawal. The Investigator may discontinue a participant from the study at any time if the Investigator considers it necessary for any reason including:

- ineligibility (either arising during the study or retrospectively having been overlooked at eligibility assessment)
- significant protocol deviation
- withdrawal of consent

- if the participant refuses to do any POCTs, or if an adult (> 16) refuses to give a venous blood sample

27. Will my GP surgery receive study procedure training?

Prior to opening recruitment, RAPTOR-C19 staff will use manufacturer's instructions to develop training materials for the tests. RAPTOR-C19 staff will liaise with the manufacturers where clarification is required on use of the POCT. They will arrange training via teleconference with participating practices to allow rapid dissemination in compliance with social distancing advice. Online tutorials and/or YouTube videos will be made available. During the study, RAPTOR-C19 staff will be available to support study sites and answer any queries.

28. Do you have any further details on the study?

We have a GP information sheet, a protocol and this FAQ list that we can provide which contains further information.

29. The practice study agreement states ' If you agree to take part, you will be required to provide such support as may be reasonably required to achieve the study's aims', in practical terms what does this involve?

We are asking your surgery to recruit patients with suspected current or past COVID-19 depending on the test that RAPTOR-C19 is evaluating at that time. Due to infection control your surgery will be asked to consent and collect all necessary data electronically. RAPTOR-C19 will provide study sites with a wireless Wi-Fi and 4G enabled Tablet. Consent and additional participant information will be collected from eligible participants using an electronic Case Report Form (eCRF) accessed on any internet enabled device. The eCRF will allow the participant, or the researcher on behalf of the participant, to work through the consent procedure. If the participant consents to the study they will be asked for further study specific information such as the symptoms patients have had and who they have been in contact with. There will also be general health questions and the study team will look at information in the patient's health records.

The patient will undergo at least one, but the intention is multiple, new rapid COVID-C19 tests. These may involve taking an oropharyngeal/nasopharyngeal swab or a finger prick test. These can be done by a member of the practice team or the participant themselves. Rapid test results should not be shared with the participant and no clinical decisions are to be taken on the basis of these results as test accuracy is still being evaluated.

On the same day as the rapid test, patients will also complete an oropharyngeal /nasopharyngeal swab and, for adults ($\geq$ 16), a blood test. Both the swabs and blood tests are to be sent to your PHE laboratory for analysis. The results of the tests processed by PHE will be communicated to the practice so that you can use them to counsel patients and potentially guide management decisions.

After around four weeks adult participants will be asked to return to the practice for another blood test, to look for antibodies to COVID-19. This blood test will also be sent to a PHE

laboratory for analysis and the results will be sent to your practice to share with your patients.

30. **Will my practice be provided with all necessary testing kits, consumables, etc.?**
    All RAPTOR-C19 sites will be required to follow the current PHE infection prevention and control guidance regarding collection and processing of samples at all times including that regarding personal and protective equipment. Contact will be minimised by using electronic and/or verbal consent using electronic case report forms. Testing kits and associated consumables will be supplied to the practices. Practices should have adequate supplies of PPE but if you are experiencing a problem please get on contact with us.

31. **What is the minimum/maximum number of Point Of Care Tests (POCT) that a participant will be asked to undertake?**
    Participants need to undertake at least one, but the intention is to assess multiple POCTs. The maximum number of POCTs will be determined by CONDOR but is unlikely to be more than five, depending on the combination of tests being evaluated.

32. **What is the COVID-19 National DiagnOstic Research and Evaluation Platform (CONDOR)?**
    CONDOR is the collaborative national platform for COVID-19 diagnostics research and evaluation. CONDOR will evaluate the analytical performance of in vitro diagnostics (IVDs) (molecular, antigen and antibody tests) via its laboratory network, and evaluate the in-context clinical performance (diagnostic and prognostic accuracy) of IVDs (self-tests, POCTs and laboratory platforms) in the network of community and secondary care settings. These include the community, emergency departments, acute ambulatory care and acute medicine units, critical care units and hospital at home services.

33. **Will the practice have access to the results of the rapid diagnostic tests?**
    Point of Care Test (POCT) results should not be shared with the participant or used to make any clinical decisions as test accuracy is still being evaluated. The results of the laboratory tests processed by PHE will be communicated to the practice so that primary care practitioners will be able to use them to counsel patients and potentially guide management decisions.

34. **How many patients will my practice be expected to recruit?**
    We are aiming to recruit approximately 500-1000 participants per POCT but the final number is dependent on the prevalence of COVID in the tested population and the accuracy of the POCT. As prevalence rates (and therefore recruitment rates) will vary throughout the country it is not be possible to calculate one figure for any given site. We will be monitoring the results coming back from each testing site centrally and will inform the study sites when to stop recruiting.

35. **Can members of the same household participate?**
    Yes, they can. Anybody who has been in close contact with somebody who has a suspected COVID-19 infection is eligible to take part. They need to be able to consent to the study themselves, or if they are under 16 have a parent or guardian who can do this for them. They should get in touch with their doctor or nurse, or on the study contact details below.

36. **Are we expected to take blood tests from children?**
    No, we are not taking blood tests from children younger than 16 years old. Additionally, we will not ask children under 10 years old to undergo finger prick tests.

37. **Are there patient information sheets available for children?**
    There are Patient Information Sheets available for the following age groups:
    - Under six year olds
    - Six to nine year olds
    - 10 to 15 year olds
    - Adults ($\geq$ 16)

    Electronic versions of these will be shared in the study pack once a practice has been selected to participant and they will also be available online.

38. **Can a young person (< 16) give consent for themselves or do they need their parents'/carers consent?**
    No, anyone younger than 16 will need the consent of a parent/guardian to participate in this study.

39. **Can I recruit patients who refuse to do any Point of Care Tests but who agree to complete the questionnaire and give permission to have their records accessed?**
    No, to participate a patient must agree to one or more Point of Care Tests.

40. **Is a patient eligible if they will only do one or two of the required Point of Care Tests?**
    If the patient if unable to complete all of the Point of Care Tests we will not exclude them from the study. If a patient is unable to complete any Point of Care Tests they will be excluded from the study.

41. **What do I do if a participant subsequently contacts my practice to say they no longer want to participate?**
    Participants are free to withdraw from the study at any time without explanation. There is an option on the electronic consent form where you should indicate that a patient has withdrawn from the study.

42. **What do I do if a participant wants to see the research data that has been collected about them?**
    If a participant wants to see the research data that has been collected about them please ask them to contact the study team.

43. **What do I do if a participant requests that we delete the research data that we have collected from them?**
    General Data Protection Regulation (GDPR) gives participants the right to be informed, of access, to rectification, to erase/ right to be forgotten, to restrict processing, to data portability, to object, and to rights in relation to automated decision making and profiling. Many of these rights do not apply when the data is being used for research purposes, but

please direct the participant to the Study Team who will respond to concerns or queries that you may have.

44. **I/a participant wants to find out more information about the study, who should I contact about this?**
    If you or a study participant would like to find out more about the study, please contact: RAPTOR@phc.ox.ac.uk

45. **A participant wants to make a complaint about the study/study procedures, who should I direct them to?**
    If a participant wants to make a complaint about the study/study procedures please provide them with the following details:

    Please contact the University's Information Compliance

    Officer:data.protection@admin.ox.ac.uk

    - If you would like to report a data security breach (e.g. if you think your personal data has been lost or disclosed inappropriately), or
    - If you would like to complain about how the Research Group has used your data

    You also have the right to complain to the Information Commissioner who is the regulator for data protection in the UK: https://ico.org.uk/global/contact-us/

uMed and the RAPTOR Electronic Case Report Form

1. **What is uMed?**
   - uMed is a technology platform that enables practices to conduct research and education programmes with reduced burden to frontline staff
   - It does this using Electronic Health Records (EHR) to automate engagement and data capture from targeted patients on behalf of the practice
   - Crucially, uMed acts as a data processor to your practice so like Apollo or Accurx service, data is never externally shared, and patients are not contacted without the express permission of the practice.

2. **How does uMed support RAPTOR?**
   This platform will provide the functionality required to digitally engage patients, e-consent them into the study, and capture structured outcomes during/after site visits. Furthermore, uMed will enable linking of this data to RCGP RSC datasets aggregated from primary care EHRs.

3. **How does it work?**
   Note: The uMed team will provide further information and training for practices participating in the study.

   - Practices can directly register patients for RAPTOR, and once the EHR integration is active can also use uMed to automatically conduct searches, engage patients and screen for eligibility.
   - Eligible patients are brought in for POC testing, where patient consent and case report form (CRF) data are captured using uMed which is accessed via any web browser (e.g. iPad)
   - Patients are then automatically followed up with daily symptom diaries
   - Once implemented in the practice, uMed can be used to respond to future academic & commercial study opportunities relevant to your practice population

4. **What happens next?**
   The uMed team will contact you by email (all emails will include RAPTOR C-19 in the subject line) to:
   i. Approve the data processing agreement required for uMed to provide this service to the practice
   ii. Set up logins for members of the practice team
   iii. Answer any questions from the practice team

5. **Does the uMed agreement affect other research my practice may be involved in?**
   No. uMed simply provides a technology service to support RAPTOR as well as future research programmes. This includes presenting the practice with matched research opportunities, which the practice is free to decline.

6. **What are the costs of uMed implementation?**
   uMed charges no fees to the practice to implement or maintain the platform.

7. **Why is a data processing agreement required?**
   uMed provides services to the practice that support the execution of clinical studies. This requires an agreement between uMed and the practice in addition to usual research agreement between the study team and site.

8. **What is a data processing agreement?**
   The agreement details how uMed will process data on behalf of the practice to support clinical studies. This includes processing to:
   1. Match potential subjects in the practice population with study opportunities for review by the practice.
   2. If approved by the practice, engagement of those patients on behalf of the practice to support recruitment, and data capture
   3. If approved by the practice, linkage of outcomes from the clinical record to the study CRF

   It is important to note that this is not a data sharing agreement. As a data processor, uMed cannot share or utilise practice data unless explicit permission is obtained from the practice (the data controller). In the same way, EMIS, Apollo, Accurx and other technology vendors cannot use practice data outside of that defined in their service agreement with practices.

9. **How does uMed protect the identity of patients?**
   uMed separates all patient identifiable information from health data. An encrypted link identifier is the only connection between these silos. The result is that PII and health data are never simultaneously presented within the uMed platform to ensure the very highest standard of data protection.

10. **Is uMed GDPR compliant**
    Yes. uMed is also compliant with the standard of NHS DSP Toolkit, ISO 27001, as well as an accredited partner of EMIS Health.

11. **Who should I contact if I have questions?**
    Mrs Abi Dhillon is the designated uMed point of contact for practices.

    By email:
    practicesupport@umed.io (mailbox is monitored out of hours and the uMed team will endeavour to respond to urgent queries as soon as possible)

By phone:
02033 030329 (Mon – Friday 9am – 5.30pm)