

# **SARS-CoV-2 Deceased Organ Donor Screening**

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## ***Summary of changes***

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- Additional references regarding the importance of all donor files including an upload of FRM6439 to donor path.
- Request that if due to multiple results FRM6634 is used that this must also be uploaded to DonorPath.
- Update to where results must be recorded in line with DonorPath IT release.

N.B. SNs must read this document in conjunction with POL304 SARs-CoV-2 Assessment and Screening in Organ Donors and Recipients. Users must refer to <https://www.odt.nhs.uk/covid-19-advice-for-clinicians/> for the most recent version of POL304 and all linked documents.

## **Useful Information**

Severe Acute Respiratory Syndrome Coronavirus 2 also known as SARS-CoV-2 causes Coronavirus Disease 2019 (COVID-19). The transmission of COVID-19 is thought to occur mainly through respiratory droplets generated by coughing and sneezing, and through contact with contaminated surfaces (WHO 2020).

The COVID-19 pandemic has had a significant impact on organ donation and transplantation in the UK. Although fundamental questions still remain about the biology of the Severe Acute Respiratory Syndrome Coronavirus-type 2 (SARS-CoV-2), the natural history and optimal treatment of COVID-19, knowledge has evolved rapidly since early 2020. This document provides guidance on the SARS-CoV-2 assessment and screening of potential solid organ donors and must be read in conjunction with POL304.

### **Key to COVID-19 Testing:**

- **Collect sample in correct specimen transport container + check labelling**
- **Contact Donor Testing Laboratory before sending samples**
- **Request laboratory confirm arrival of samples**
- **Agree and note ETA of results**
- **Where results are not negative send FRM6439 to Donor Testing Virologist**
- **Await final NHSBT SARS-CoV-2 results**

**Which samples should be taken?**

**SCREENING OF POTENTIAL ORGAN DONOR FOR COVID-19**

**1. Upper respiratory tract sample options:**

- individual nose and throat swabs in separate collection tubes OR
- combined nose and throat swab in one collection tube containing universal transport medium OR
- single swab used for throat then nose

**2. Lower respiratory tract sample in universal container**

ENDOTRACHEAL ASPIRATE

N.B. Some patients who cannot have nose swab taken (i.e. extensive trauma or bleeding); very rarely, neither nose or throat swab can be obtained so an oral swab can be taken instead.

It should be noted that failure of internal control amplification invalidates the test – no result available (system failure). The test needs to be repeated on the same or another sample. This is not an indeterminate result.

## **Glossary**

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### **Roles**

**SN** - Specialist Nurse Organ Donation. For the purposes of this document the term SN will apply to a Specialist Nurse with the relevant knowledge, skills, and training in organ donation, working within NHSBT Organ Donation Services Teams (ODST), including SNOD-Specialist Requester, SNOD-Family Care

**TM** -Team Manager. To support a SN in the implementation of this SOP

**RM** - Regional Manager. To support a TM or SN in the implementation of this SOP

**CLOD** - Clinical Lead for Organ Donation

**ICU Consultant** – Intensive Care Unit Consultant

**HO** - Hub Operations

**PID** – Patient Identifiable Data

**Donor Testing Virologist** – Virologist undertaking deceased donor testing either within regional laboratory or on occasion within donor hospital

**ODST** – Organ Donation Services Team

### **Terminology**

**SARS-CoV-2** - Severe Acute Respiratory Syndrome Coronavirus-type 2

**COVID-19** - Coronavirus disease

**SARS-CoV-2 Ribonucleic Acid (RNA)** - the test used to detect SARS-CoV-2 infection

**NTS** – Nose and Throat Swab

**ETA** – Endotracheal Aspirate

**DonorPath** - the secure electronic record that is utilised to upload clinical information about a patient.

**NRC** – National Referral Centre

### **Restrictions**

This SOP is to be followed by a qualified, trained SN. In the event of a SN who is in training, this SOP is to be utilised under supervision.

## Related Documents/References

### SOPs

**SOP3630** - Diagnostics-Blood Tests

**SOP3649** – Voice Recording of Organ Donor Clinical Conversations

**SOP4938** – Sharing Clinical Information

### FRMs

**FRM6445** - COVID-19 Swab and Endotracheal Aspirate Request Form

**FRM6439** – SARS-CoV-2 Assessment and Screening (in deceased organ donors)

**FRM6634** – Result Table

### INFs

**INF1549** - COVID-19 Surge Deceased Donation Criteria Assessment Tool

### POLs

**POL304** - SARS-CoV-2 Assessment and Screening in Organ Donors and Recipients

### DATs

**DAT3906** – COVID-19 Guidance for OTDT Specialist Nurse Colleagues

**DAT4077** – Virology Laboratory Email Address List

NHSBT Covid 19 advice for clinicians

<https://www.odt.nhs.uk/covid-19-advice-for-clinicians/>

Example Video Endotracheal Aspirate

<https://www.odt.nhs.uk/covid-19-advice-for-clinicians/example-of-eta-sampling/>

Example Video Throat and Nose Swab

<https://www.odt.nhs.uk/covid-19-advice-for-clinicians/nose-and-throat-sampling/>

**SOP5869/4 – SARS-CoV-2 Deceased Organ Donor Screening**

**1. Referral of a Potential Deceased Organ Donor**

<b>Information</b>	<p>SARS-CoV-2 RNA positivity alone does not define infectiousness and cannot be interpreted in a binary fashion. POL304 sets out the circumstances where organ donation from selected donors with positive (or indeterminate) SARS-CoV-2 RNA test results may be reasonable, following virological advice, and where evolving infection (and therefore the risk of infectivity to recipients) is deemed unlikely.</p>				
<b>Action</b>	<p>Assess for donation referring to POL304 SARS-CoV-2 Assessment and Screening in Organ Donors and Recipients.</p>				
<b>Notes</b>	<p>If SARS-CoV-2 (RNA) samples have already been taken and sent in advance by the ICU, the SN must check with the processing lab that the samples have arrived and expected time of results.</p> <p>Any concerns regarding the testing or any implications of results to be discussed with local donor testing virologist to determine risk.</p>	<p>If Critical Care Capacity is stretched, explore ways to mitigate.</p> <p>Refer to INF1549 - COVID-19 Surge Deceased Donation Criteria Assessment Tool.</p> <p>If unable to facilitate report via <a href="https://safe.nhsbt.nhs.uk/IncidentSubmission/Pages/IncidentSubmissionForm.aspx">https://safe.nhsbt.nhs.uk/IncidentSubmission/Pages/IncidentSubmissionForm.aspx</a></p>	<p>If the decision is finely balanced then consider using an ethical decision-making framework e.g. <a href="http://www.moralbalance.org">www.moralbalance.org</a></p>	<p>SNs must adhere to local donor hospital policies on the use of Personal Protective Equipment (PPE) when caring for patients with positive or indeterminate SARS-CoV-2 RNA test results referring to DAT3906 Guidance for SNs.</p>	<p>On referral to the ODST, the SN/TM taking the referral should document in Sequence of Events on DonorPath the level of PPE that is currently in use.</p>

**SOP5869/4 – SARS-CoV-2 Deceased Organ Donor Screening**

**2. Organ Donation is being Assessed**

<b>Information</b>	Deceased Organ Donation is being Assessed			
<b>Action</b>	<p>England, Wales + NI If opt in on ODR send tissue typing, microbiology bloods and SARS-CoV-2 RNA samples, process tissue typing but do not process other samples until family consent. If not opt in on ODR send and process samples after discussion with family.</p> <p>Scotland samples cannot be taken without discussion and authorisation from nearest relative after duty to inquire and checking unwillingness or change of mind.</p>			
<b>Notes</b>	<p><b>England, Wales + NI</b></p> <p>If opt in on the ODR send tissue typing, microbiology, and SARS-CoV-2 samples, process tissue typing but do not process other samples until family consent.</p> <p>If not opt in on ODR do not send samples until family consent as per SOP3630 Diagnostics-blood tests.</p> <p>There is no requirement to wait for COVID-19 results before processing tissue typing samples.</p>	<p><b>Scotland</b></p> <p>As per SOP3630 Diagnostics - Blood tests samples cannot be taken without discussion and authorisation from nearest relative after duty to inquire and checking unwillingness or change of mind.</p>	<p>As per POL304 – SARS-CoV-2 Assessment and Screening in Organ Donors and Recipients SARS-CoV-2 RNA nose and throat and endotracheal aspirate samples must be preferably within 24 hours (and no longer than 48 hours) of organ retrieval.</p>	<p>The SN should oversee the taking of the throat and nose swab and endotracheal aspirate to ensure they are in the correct sample transport container and correctly labelled using 3 PID.</p>



# SOP5869/4 – SARS-CoV-2 Deceased Organ Donor Screening



Blood and Transplant  
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<p><b>Information</b></p>	<p>If ICU has not already tested for SARS-CoV-2 RNA, inclusive of endotracheal aspirate OR If previously tested negative but new symptoms or further respiratory deterioration OR time of previous samples would be outside the preferred 24 hours (and no longer than 48 hours) to potential organ retrieval:</p>			
<p><b>Action</b></p>	<p>ICU team to take throat/nose swab and endotracheal aspirate. SN to complete FRM6445 and label with 3 points of PID.</p>	<p>Send samples to virology laboratory as per local agreement as early as possible in the process communicating clearly.</p>	<p>Throat/Nose swab and endotracheal aspirate are to be tested on the next available run.</p>	<p>Record dates and times of sample collection on FRM6439.</p>
<p><b>Notes</b></p> <p>1</p>	<p>There is no requirement for a broncho-alveolar lavage to be performed with a bronchoscope.</p> <p>Example videos of how to take a throat and nose swab and an endotracheal aspirate from a ventilated patient in a close circuit manner are provided in the following links: <a href="https://www.odt.nhs.uk/covid-19-advice-for-clinicians/nose-and-throat-sampling/">https://www.odt.nhs.uk/covid-19-advice-for-clinicians/nose-and-throat-sampling/</a>  <a href="https://www.odt.nhs.uk/covid-19-advice-for-clinicians/example-of-eta-sampling/">https://www.odt.nhs.uk/covid-19-advice-for-clinicians/example-of-eta-sampling/</a>                  Healthcare professionals should always follow their own local hospital infection guidelines and protocols.</p>		<p>COVID-19 Regional SN arrangements for sending samples is available see file director or in the regional handbooks. SN to liaise with processing laboratory to agree correct specimen transport container. Care must be taken to ensure that sample pots are suitable for testing viral PCR.</p>	

## SOP5869/4 – SARS-CoV-2 Deceased Organ Donor Screening

Copy No:

Effective date: 20/09/2022

### Paediatrics:

Where a maternal assessment is required, there is no requirement to additionally complete a maternal COVID-19 screen, donor screening is sufficient.

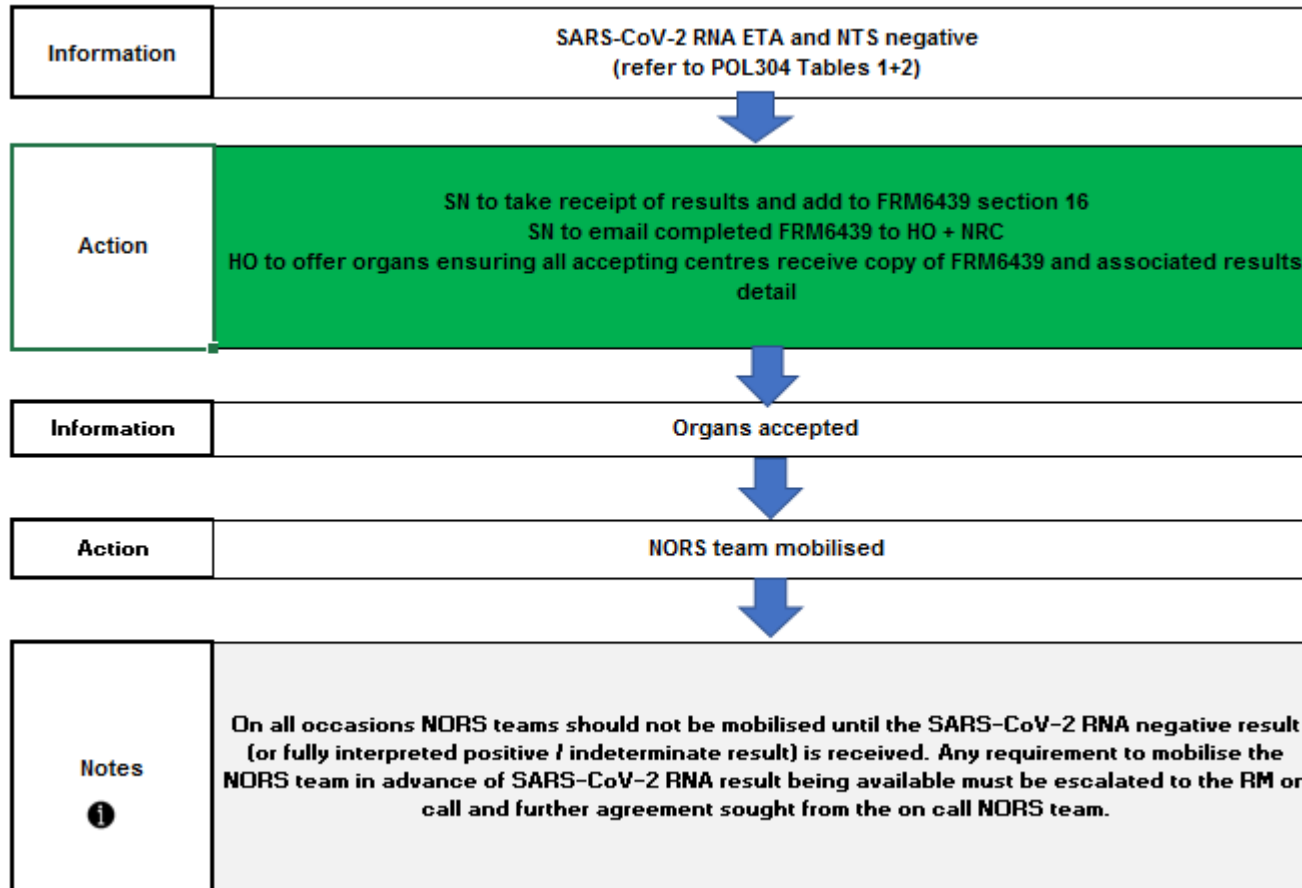
If a paediatric patient does not have an ETT, a nasopharyngeal aspirate may be a more appropriate sample. Nasopharyngeal aspirates are a common occurrence in paediatrics.

Paediatric Unit policy should be followed for ET/nasopharyngeal sampling including volume of saline installation.

- 2.1 SNs must complete FRM6439 SARS-CoV-2 Assessment and Screening (in deceased organ donors) sections 1 – 15 inclusive as soon as practically possible. SNs should commence section 16 noting admission SARS-CoV-2 testing and await results of NHSBT deceased donor screen.
- 2.2 Best practice indicates where possible SNs should have all SARS-CoV-2 results and any necessary interpretation ahead of registering with Hub Operations. Regional laboratory variations may not make this possible on all occasions.

# SOP5869/4 – SARS-CoV-2 Deceased Organ Donor Screening

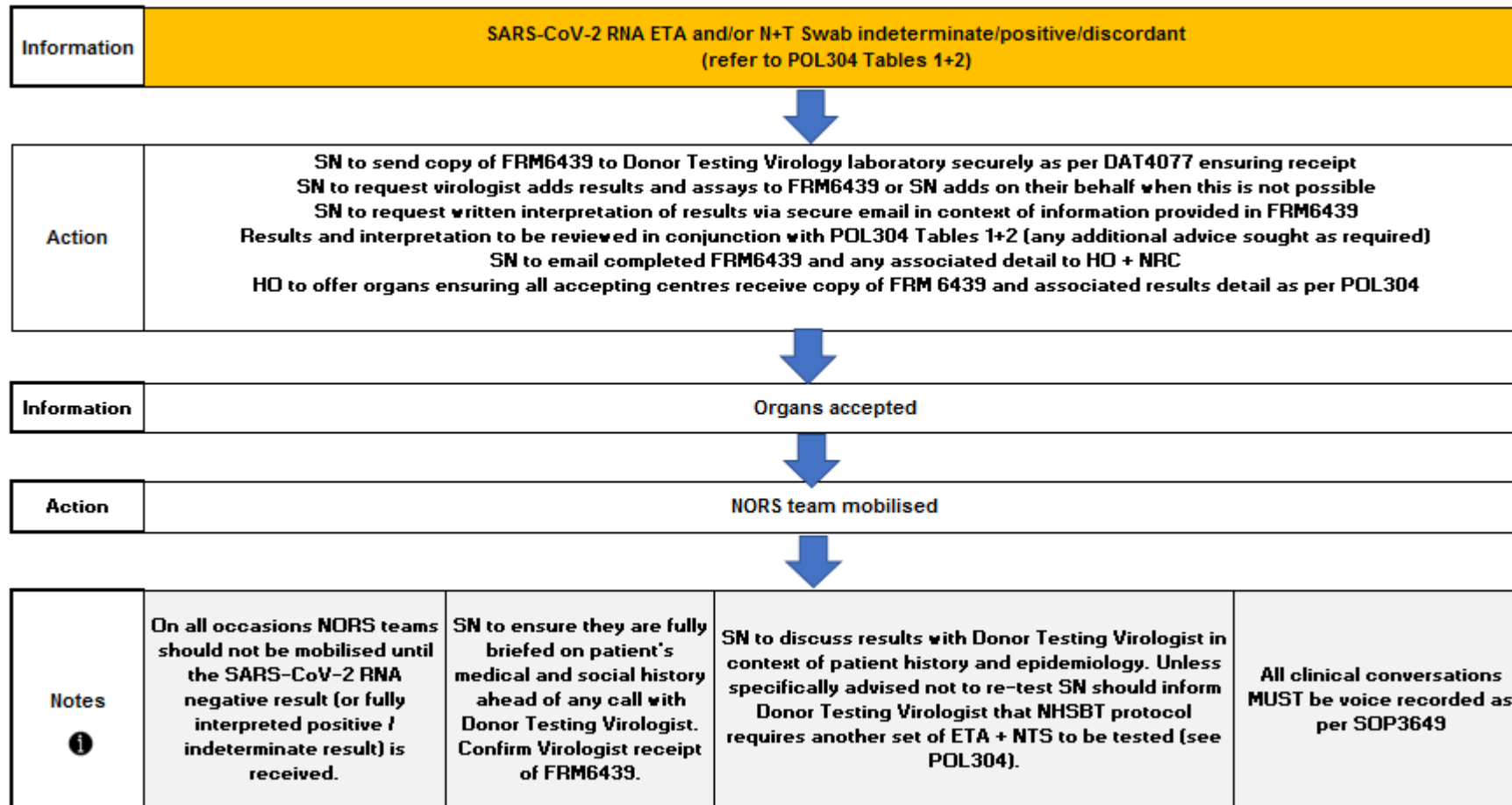
## 3. Results and Interpretation



# SOP5869/4 – SARS-CoV-2 Deceased Organ Donor Screening



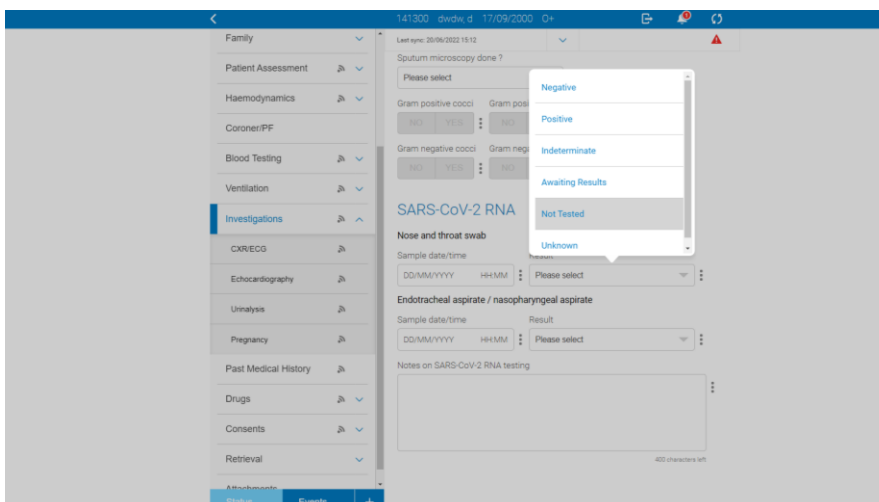
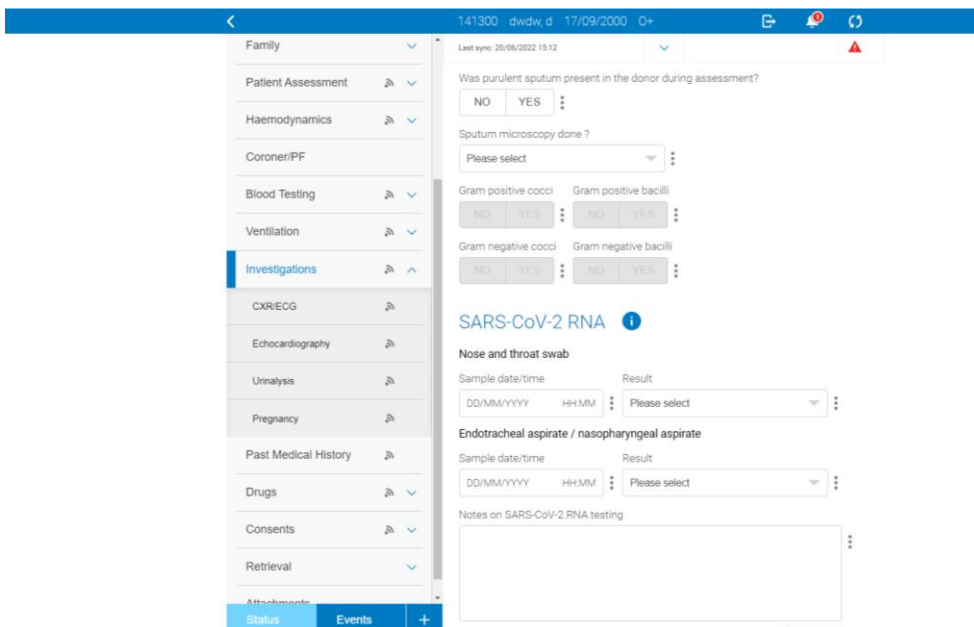
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 Effective date: 20/09/2022



- 3.1. Best practice indicates where possible all donor characterisation information is available at the point of donor registration. In circumstances where the SARS-CoV-2 results have not been received and the SN is ready to register the donor with OTDT Hub operations, the SN should make contact with donor virology testing laboratory in order to assess timings. Where possible and feasible await the results if imminent.
- 3.2. In circumstances where the results are negative the SN must add the results to the completed FRM6439 SARS-CoV-2 Assessment and Screening (in deceased organ donors) in section 16. The SN should send the completed FRM6439 via email to Hub Operations ([odthub.operations@nhsbt.nhs.uk](mailto:odthub.operations@nhsbt.nhs.uk)), NRC ([National.ReferralCentre@nhsbt.nhs.uk](mailto:National.ReferralCentre@nhsbt.nhs.uk)) and Donor Family Care Services [ODTDonor.RecordsDepartment@nhsbt.nhs.uk](mailto:ODTDonor.RecordsDepartment@nhsbt.nhs.uk).
- 3.3. In circumstances where the results require virological interpretation the SN should use DAT4077 and send a copy of FRM6439 to the Donor Testing Virologist via secure encrypted email. The SN should ask the Donor Testing Virologist to add the test results to section 16 and to provide a written interpretation of the results which can be sent to the SN via secure email.
  - 3.3.1. In circumstances where the results require virological interpretation but the Donor Testing Virologist is unable to email the SN, the SN must voice record the clinical conversation (as per SOP3649) with the virologist and add the results information to FRM6439 in section 16.
  - 3.3.2. It is essential that the SN is clear on the ask of the Donor Testing Virologist which is to help provide an interpretation of the results they have generated in the context of the patient history and information provided in FRM6439 with regards to evolving infection / risk of infectivity. SNs should continue to work within POL304.
- 3.4. On all occasions the SN should agree with the Donor Testing Virologist requirements for additional testing where required in line with POL304.
- 3.5. Once all results have been tabled in chronological order and written interpretation received from the Donor Testing Virologist the SN should proceed or stand down in line with POL304 advice (Tables 1 and 2). Where required SNs can seek any additional advice via escalation to TM / RM on call.
- 3.6. For all proceeding donors the SN should email the completed FRM6439 to Hub Operations ([odthub.operations@nhsbt.nhs.uk](mailto:odthub.operations@nhsbt.nhs.uk)), NRC ([National.ReferralCentre@nhsbt.nhs.uk](mailto:National.ReferralCentre@nhsbt.nhs.uk)) and Donor Family Care Services [ODTDonor.RecordsDepartment@nhsbt.nhs.uk](mailto:ODTDonor.RecordsDepartment@nhsbt.nhs.uk).
- 3.7. On all occasions where new clinical information is obtained post donor registration the SN must follow SOP4938 as per usual practice. Actions must be documented in sequence of events on DonorPath. It is the SNs responsibility to ensure the HUB have the most up to date version of FRM6439.
- 3.8. POL304 enables the recipient centres to request a copy of FRM6439 when considering an offer. It is the responsibility of Hub Operations to share FRM6439 with all accepting centres following organ acceptance.

## 4. Recording Results on Donor Path

4.1 To ensure safe and consistent access to results by receiving centres the final SARS-CoV-2 results should be documented on DonorPath within the investigations section. A new section entitled SARS-CoV-2 RNA is available as seen below. The SN can enter a date/time of sample and a result for nose and throat swab and endotracheal aspirate (nasopharyngeal in some paediatric cases). A free text field is available entitled 'Notes on SARS-CoV-2 RNA testing' (max 400 character). It is the responsibility of the SN to ensure results are recorded and visible to recipient centres. N.B. A blue bubble icon is associated with the field 'final result of deceased donor screening should be recorded'.



- 4.2 At the time of registering with Hub Operations, best practice is where possible to have SARS-CoV-2 results available where possible. SARS-CoV-2 results must be checked against 3 PID and documented on the results/email. These must then be emailed to Hub Operations.
- 4.3 In circumstances where additional interpretation accompanies the SARS-CoV-2 results the SN MUST include the following within the 'Notes on SARS-CoV-2 RNA testing':

**ADDITIONAL SARS-CoV-2 RESULTS WRITTEN INTERPRETATION AVAILABLE VIA  
HUB OPERATIONS ON REQUEST – 0117 9757580**

- 4.4 A copy of the final completed FRM6439 must be uploaded by the Donor Family Care Service to the Donor File attachments for record purposes. N.B. this is for Donor File Record purposes only and SNs must be aware that attachments are not visible to recipient centres. A copy of the final FRM6439 must be sent via email to Donor Family Care Services for upload onto Donorpath [odtdonor.recordsdepartment@nhsbt.nhs.uk](mailto:odtdonor.recordsdepartment@nhsbt.nhs.uk)
- 4.5 On occasions where there are multiple results which cannot be safely accommodated within FRM6439, FRM6634 can be used as an additional results table. On occasions where this additional table is used it must also be attached to DonorPath. A copy of the final FRM6634 must be sent via email to Donor Family Care Services for upload onto Donorpath [odtdonor.recordsdepartment@nhsbt.nhs.uk](mailto:odtdonor.recordsdepartment@nhsbt.nhs.uk)

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## **5. Useful links**

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NHSBT Covid 19 advice for clinicians

<https://www.odt.nhs.uk/covid-19-advice-for-clinicians/>

Clinical Governance reporting form

<https://safe.nhsbt.nhs.uk/incidentSubmission/Pages/Incident/SubmissionForm.aspx>

Ethical Framework [www.moralbalance.org](http://www.moralbalance.org)

Example Video Endotracheal Aspirate

<https://www.odt.nhs.uk/covid-19-advice-for-clinicians/example-of-eta-sampling/>

Example Video Throat and Nose Swab

<https://www.odt.nhs.uk/covid-19-advice-for-clinicians/nose-and-throat-sampling/>

WHO

[https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-\(covid-2019\)-and-the-virus-that-causes-it](https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-(covid-2019)-and-the-virus-that-causes-it)

WHO

[https://www.who.int/health-topics/coronavirus#tab=tab\\_1](https://www.who.int/health-topics/coronavirus#tab=tab_1)

Hub Operations email address: [odthub.operations@nhsbt.nhs.uk](mailto:odthub.operations@nhsbt.nhs.uk)

National Referral Centre email address: [National.ReferralCentre@nhsbt.nhs.uk](mailto:National.ReferralCentre@nhsbt.nhs.uk)

Donor Family Care Service email address: [odtdonor.recordsdepartment@nhsbt.nhs.uk](mailto:odtdonor.recordsdepartment@nhsbt.nhs.uk)