This SOP is associated with Risk Assessment Diagnostic Screening of Clinical Respiratory ACDP Hazard Group 3 SARS-CoV-2

Warning

This work involves handling and processing of clinical nasal or throat swab samples from NHS staff or patients who are suspected of being infected SARS-CoV-2.

⇒ This SOP is to be followed in order to avoid infection exposure to the virus

Safety Information – routes of infection

Person-to-person spread is thought to occur mainly via:

- respiratory droplets produced when an infected person coughs or sneezes, or
- by contact with droplets and contaminated fomites.

The following Personal Protective Equipment (PPE) must be worn at all times in the sample receipt and processing area:

- A Howie style lab coat which must be worn at all times.
- nitrile or neoprene disposable gloves.

Location of sample receipt and processing area

Clinical samples will be delivered by courier and transferred to sample reception area by nominated staff

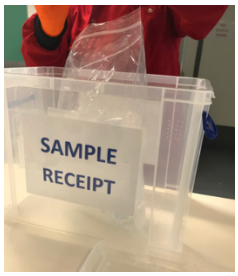
At the Receipt station, staff will act in the following capacities

- Sample Checker (SC)
- Barcode Operator (BO)
- Barcode Label Operator (BLO)
- Sample Sorter (SS)

Sample packaging

Incoming sample packs will arrive in a UN3373 medical carrier. They will then be transferred to a really useful box.

Supplementary Method 1 Sample receipt, unpacking and barcoding



Multiple samples will initially be triple bagged

- Each sample will be in 2 sample bags.
- The sample bags will grouped be in a larger outer bag (the sample pack).

A Registering samples on Tube Tracker

Tube Tracker is a software system to track the whereabouts of samples received into the building.

1. Logging into Tube Tracker

1.1 Open up the internet browser (Google Chrome) and search for the designated tube track website

1.2 Click on “Logon” in the top right hand corner of the screen.

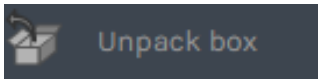
1.3 All users must have an individual login for the system; generic accounts must not be used.

1.4 Log in using the username and desgnated password supplied.

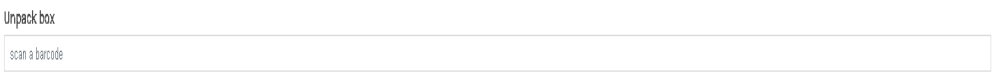
1.5 Once a username and password have been entered the relevant location will be visible now click on “Sign In”.

2. Unpacking the contents from the bag

2.1 Once samples arrive into the laboratory they will need to be unpacked from each bag received. Click on the icon “Unpack Box” from the main menu on the left hand side of the screen.



2.2 Scan the barcode label which should be on the outer bag into the field ‘unpack box’. Always make sure the cursor is inside the field before scanning the bag barcode.



2.3 The contents of the box will appear to the right of the screen.

2.4 Begin scanning the barcodes of each individual sample to unpack and receive them. This will automatically update the sample audit trail to show when and where each sample has been received, and which user received it.

2.5 When all samples have been unpacked from the box, a message will appear to the bottom right of the screen indicating that the box is now empty.

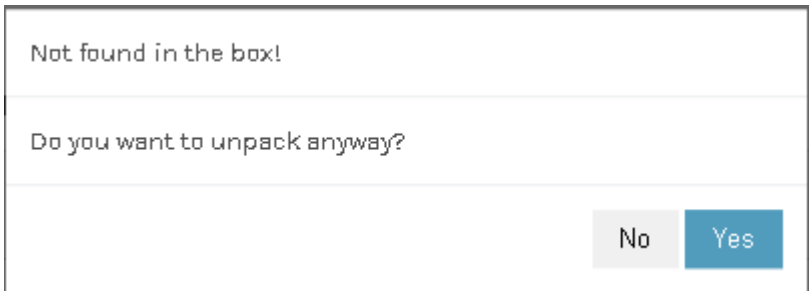
3. Missing samples

3.1 If there are any missing samples, for example, a sample has been scanned into the bag but is not physically in the bag then this must be marked as “missing”.

3.2 To mark samples as missing click on the following symbol  that appears next to each sample number in the list. **Please ensure that the correct samples are marked as missing as once this has been clicked it cannot be undone.**

3.3 Notify the site that sent this sample so they are able to investigate what has gone wrong.

3.4 If there are any samples that are physically in the bag, but have not been tracked into the bag, the following message will appear:



3.5 Click “Yes” and the system will show on the audit trail for that sample that is has been unpacked. **Please ensure you have scanned the correct barcode before selecting yes, especially if there are other barcodes on the sample.**

4. Reporting System issues

4.1 There may be times when the system is slow, or error messages appear such as ‘bad gateway’. This can be due to server issues. In most cases refreshing your browser and/or logging off and logging back on can resolve these. However, if the issue persists, please report using the contacts that have been provided for escalation.

B Processing of "correct" clinical nasal or throat swab samples

Receipt

Sample Checker will;

5. Open the really useful box of incoming samples

Warning Risk of exposure due to damaged or leaking materials

6. Without opening a sample pack bag, visually inspect the samples within it for gross leakage.

   If no leakage seen, proceed to step 7

If leakage is observed

i. Do not open the sample pack or remove any sample bags
ii. If a member of health and safety (H&S) is not already in attendance, contact health and safety immediately
iii. H&S will spray the sample bags with distel disinfectant
iv. Place the sample pack into a designated really usefull box labelled 'leaked samples'
v. Place the lid on the really useful box
vi. Transfer the samples to the CL3 facility to disinfect and recover any remaining usable samples.
vii. Usable samples will start at receipt stage again
viii. Unusable samples will be disposed of via autoclave process

7. Open a sample pack

8. Working with one sample bag at a time, remove a sample from the sample pack.

Warning Risk of exposure due to incorrect samples eg faeces, urine and blood

9. Visually inspect the individual sample bag to ensure appropriate sample.

   If no leakage seen, proceed to step 11

If incorrect sample is observed

i. Go to process C on page 12

Warning Risk of exposure due to damaged or leaking materials

10. Visually inspect the individual sample bag for leakage.

If no leakage seen, proceed to step 11

If leakage is observed

ii. Go to process D on page 15

Sample check – process for correct samples

It is important that the samples are clinical nasal or throat swab samples

- **Incorrect samples will need to be returned (see section B)**

11. Check that the sample is a clinical nasal or throat swab sample.
12. Check that sample has a barcode label. Note the barcode should start with a two digit number followed by a letter, commonly known as an EDTA number.

13. Tell the barocder that it is a correct sample.

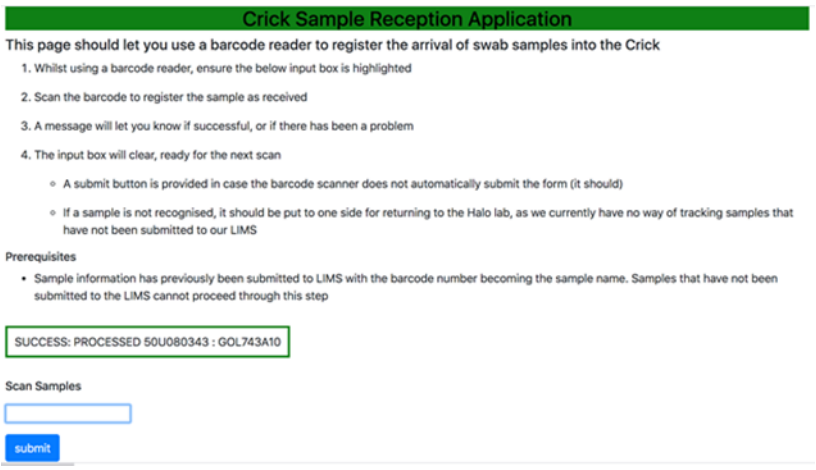
Barcoding

The barcode operator will;

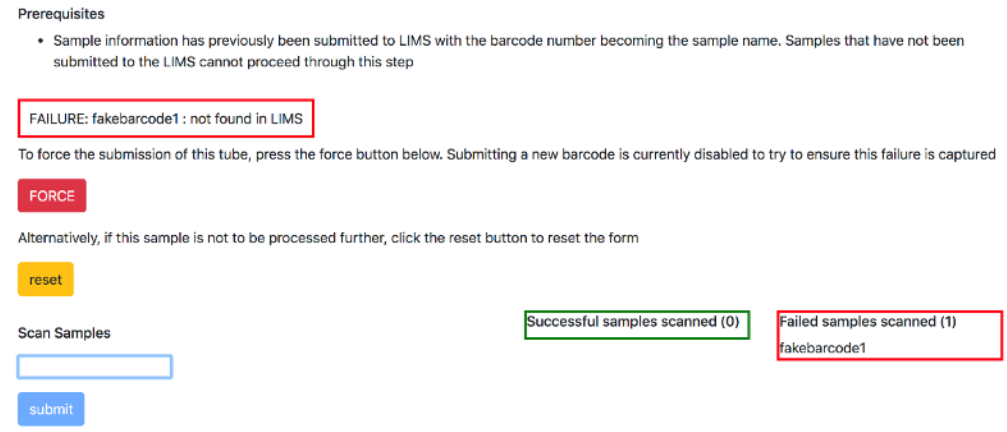
14. Scan the barcode though the sample bag twice,
    - On barcode reader 1 to register sample on Clarity software
    - On barcode reader 2 to allow the printing of 2 labels.

Barcode reader 1 scan check

- If the barcode has been scanned successfully, the following notification should be received:



- If the barcode scanning has failed, the following notification should be received:



- Double check correct barcode has been scanned if an EDTA number matching sample ‘force’ the sample through for processing
- If non EDTA number entered check sample for an EDTA number anywhere on sample pack, if there is one scan if successful send sample through for processing. If failure ‘force’ sample through for processing
- If no EDTA number do not force but ‘reset’ and send sample through process C page 12 

i Barcode reader 2 scan check

- Ensure that x2 barcodes (x3 barcodes if sample container has no barcode) have been produced.

15. Pass the sample to a barcode lable operator.

Labelling the sample bags

The barcode label operator will;

16. Advance the printer one label and cut using a scissors

Warning Risk of exposure through damaging the sample bag integrity

- **Do not staple through the main compartment of the sample bag**

17. Staple through the unbarcoded label onto the sample bag above the zip lock as shown here.

Sample Sorting

The sample sorter will;

Sample & the printed barcodes must match to prevent misdiagnosis

- **The sample sorter must check the printed barcodes match** with the original one in the sample bag

18. Place all correct samples that have been correctly labelled in a really useful box

19. Fix the lid of the really useful box once full or all samples accounted for.

The samples are now ready for transport into the CL3 suite.

A runner will transfer full incoming sample transfer boxes to CL3 ready for staff processing the samples in CL3.

C Processing of "incorrect" samples

Warning Risk of exposure due to damaged or leaking materials

20. Visually inspect the individual sample bag for leakage.

If no leakage seen, proceed to step 21

If leakage is observed

iii. Go to process D on page 15

sample check - process for incorrect samples

- Incorrect samples include urine, faeces, blood

21. Identify the sample as an incorrect sample (i.e. the sample is not a clinical nasal or throat swab sample).
22. Tell the barcode operator that it is an incorrect sample

Barcoding

The barcode operator will;

23. Scan the barcode though the sample bag twice,
    - On barcode reader 1 to register sample on Clarity software
    - On barcode reader 2 to allow the printing of 2 labels.

Barcode not readable

- If the barcode is unreadable pass to sample sorter for manual input onto paperwork

24. Advise the barcode label operator that it is an incorrect sample
25. Pass the sample to the barcode label operator

Labelling the sample bags

The barcode label operator will;

26. Advance the printer one label and cut using a scissors

Warning Risk of exposure through damaging the sample bag integrity

- **Do not staple through the main compartment of the sample bag**

27. Staple through the unbarcoded label onto the sample bag above the zip lock as shown here.

Sample Sorting

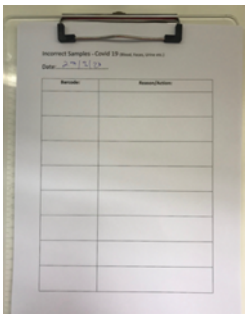
The sample sorter will;

Sample & the printed barcodes must match to prevent misdiagnosis

- **The sample sorter must check the printed barcodes match** with the original one in the sample bag

28. Record the details onto the two "Incorrect samples Covid19" form

Supplementary Method 1 Sample receipt, unpacking and barcoding



29. Place one of the printed barcodes onto the first “Incorrect samples Covid19” form.
    a. If barcode incorrect, hand write details on form

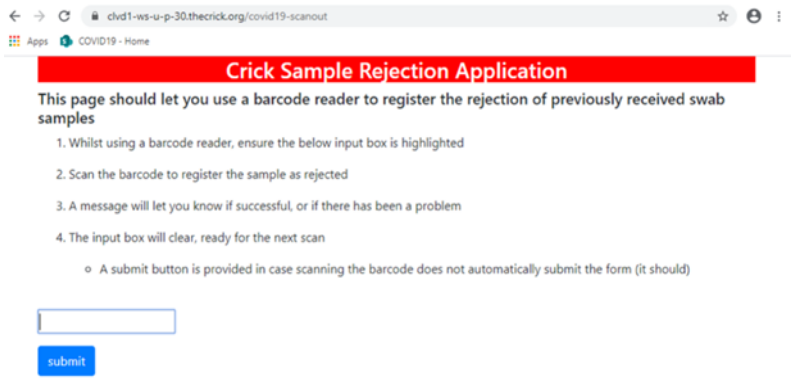
Place the second printed barcode onto the duplicate “Incorrect samples Covid19” form

30. Place all incorrect samples that have been correctly labelled in a really useful box labelled Return Samples

31. Fix the lid of the really useful box once full or all samples accounted for.

32. Place the sample into the box marked <u>return/incorrect samples</u>

33. Rescan the barcode in the sample rejection application to register the sample as rejected



D Recording details of leaked/contaminated samples.

Sample Checking

The sample checker will;

34. Identify the sample as a leaked sample (i.e. the sample shows liquid in internal bag)
35. Tell the barcode operator that it is a leaked sample

Barcoding

The barcode operator will;

36. Scan the barcode though the sample bag twice,
    - On barcode reader 1 to register sample on Clarity software
    - On barcode reader 2 to allow the printing of 2 labels.

i Barcode not readable

- If the barcode is unreadable pass to sample sorter for manual input onto paperwork

37. Advise the barcode label operator that it is an incorrect sample
38. Pass the sample to the barcode label operator

Labelling the sample bags

The barcode label operator will;

39. Advance the printer one label and cut using a scissors

Warning Risk of exposure through damaging the sample bag integrity

- **Do not staple through the main compartment of the sample bag**

40. Staple through the unbarcoded label onto the sample bag above the zip lock as shown here.

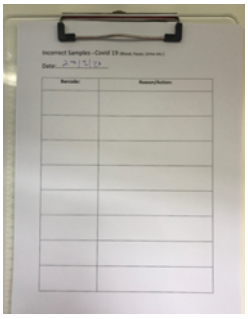
Sample Sorting

The sample sorter will;

Sample & the printed barcodes must match to prevent misdiagnosis

- **The sample sorter must check the printed barcodes match** with the original one in the sample bag

41. Record the details onto the two “leaked samples Covid19” form



42. Place one of the printed barcodes onto the first “leaked samples Covid19” form.
    a. If barcode incorrect, hand write details on form

Place the second printed barcode onto the duplicate “Incorrect samples Covid19” form

43. Place all leaked samples that have been correctly labelled in a really useful box labelled Leaked Samples

44. Fix the lid of the really useful box once full or all samples accounted for.

45. Place the sample into the box marked <u>leaked samples</u>

46. Rescan the barcode in the sample rejection application to register the sample as rejected