CenTre Neonatal Transport Service **Standard Operating Procedure for Management of suspected or confirmed Coronavirus (Covid-19) infection**	University Hospitals of Leicester NHS NHS Trust Nottingham University Hospitals NHS NHS Trust

Introduction

The transmission of COVID-19 is thought to occur mainly through respiratory droplets generated by coughing and sneezing, and through contact with contaminated surfaces. The predominant modes of transmission are assumed to be droplet and contact.

During aerosol generating procedures (AGPs) there is an increased risk of aerosol spread of infectious agents irrespective of the mode of transmission (contact, droplet, or airborne), and airborne precautions must be implemented when performing AGPs, including those carried out on a suspected or confirmed case of COVID-19.

Initial research has identified the presence of COVID-19 virus in the stools and conjunctival secretions of confirmed cases. All secretions (except sweat) and excretions, including diarrhoeal stools from patients with known or possible COVID-19, should be regarded as potentially infectious.

Personal protective equipment (PPE) and good infection prevention and control precautions are effective at minimising risk but can never eliminate it. In the absence of effective drugs or a vaccine, control of this disease, relies on the prompt identification, appropriate risk assessment, management and isolation of possible cases, and the investigation and follow up of close contacts to minimise potential onward transmission.

Exposure to COVID-19 itself is not a reason for transfer unless an uplift of care is required which cannot be managed in the birth unit. The transfer of infants with suspected or confirmed COVID-19 should be minimised where possible.

1. Scope

This policy is relevant to all CenTre team members.

2. Policy Aims

To provide guidance to all CenTre team members in the management of patients with suspected or confirmed Covid-19 infection.

3. Patient identification and classification

Confirmed Cases

For CenTre Transport, the term ‘patient(s) refers to the parents of newborn infant and the infant. Patients are classified as ***Confirmed*** cases if they have tested ***positive*** for Covid-19.

Suspected Cases

Patients can be classified as having a suspected or possible case of coronavirus if they satisfy the clinical and epidemiological criteria set out below:

- Clinical criteria
    - Severe acute respiratory infection requiring admission to hospital with clinical or radiological evidence of pneumonia or acute respiratory distress syndrome; or
    - Acute respiratory infection of any degree of severity including at least one of shortness of breath or cough, (with or without fever); or
    - Fever above 37.8C with no other symptoms
    - Clinicians should be alert to the possibility of atypical presentations in patients who are immunocompromised.

- Epidemiological criteria
    - If, in the 14 days before the onset of illness, they have travelled to/through China or another area with high risk for Covid-19 infection, or
    - If they have had contact with any confirmed cases of Covid-19. For the purposes of testing, contact with a case is defined as:
        - Living in the same household, or
        - Direct contact with the case or their body fluids or their laboratory specimens, or in the same room of a healthcare setting when an aerosol generating procedure is undertaken on the case, or
        - Direct face-to-face contact with a case for any length of time, or
        - Being within 2 metres of the case for any other exposure not listed above, for longer than 15 minutes, or
        - Being otherwise advised by a public health official that contact with a confirmed case has occurred

At referral to CenTre the referring unit team should be asked if they have concerns that one or other parent may have Covid-19. The above criteria may be used as a guide. This should be documented on the transport form.

4. Pre Transfer

Confirmed cases

The referring unit team should have discussed a confirmed case with NHS England Emergency Preparedness Resilience response (EPRR) duty officer via Public Health England (03442254524) for possible direct transfer to one of the national HCID centres.

Suspected Cases

For **suspected** cases please follow the Initial Referral Form to identifying infants who require PPE precautions.

5. Patient Management

Documentation

At referral the CenTre Transport Covid-19 flow chart should be completed along with the condition of both parents. Any suspicion or concerns about Covid-19 must be documented in the transport log.

There should be a discussion between the referring consultant, the transport consultant and the local tertiary neonatal unit consultant as to the suitability for transfer. Please refer to the document

"CenTre Transport Guidance for Transport Consultants during the COVID-19 Pandemic" for further advice. Please ensure all members of the transfer team have their names written on the transport log, including ambulance crew.

Personal Protective Equipment (PPE)

Please refer to the document CenTre PPE Guidance v8 for what PPE to wear in different situations.

The PPE described above must be worn at all times when in the infant's room, on transfer to/from the ambulance and when attending the infant in the ambulance or elsewhere.

Hand hygiene

This is essential before and after all patient contact, removal of protective clothing and decontamination of the environment.

Use soap and water to wash hands or alcohol hand rub if hands are visibly clean.

Transferring the patient with suspected Covid-19

D**o not** transfer the infant to delivery suite to see Mum. However, it may be possible to use a unit camera to take photographs of the infant to give to parents. The transport phones can be used to FaceTime the parents so they can be fully updated on the condition of their baby before the transport team depart the referring unit.

- Infants will be transferred in a closed incubator as per usual CenTre practice.
- Any escalation of respiratory support must be discussed with the on call Transport Consultant.
- Ensure the receiving hospital, are aware of the potential Covid-19 diagnosis before leaving the referring unit.
- These cases should be discussed with the local infectious diseases team in the accepting hospital
- A plan for minimising contact into the receiving unit should be discussed i.e. using the shortest route into to the neonatal unit
- Anyone handling the infant or going into the transport incubator must wear the PPE previously described

Aerosol generating procedures including tracheal intubation

Procedures that produce aerosols of respiratory secretions, for example positive-pressure ventilation via a face mask, intubation and extubation, and airway suctioning carry an increased risk of transmission. Insertion of a nasogastric tube is NOT considered an AGP in neonates. Where these procedures are medically necessary, they should be undertaken in a negative-pressure room (this is unlikely in any NNU), if available or in a single room with the door closed. .

- If aerosol generating procedures are necessary during transfer, the ambulance should stop, the doors/windows and communication window with the driver should be closed.
- Only the minimum number of required staff should be present, and they must all wear PPE as described above. Entry and exit from the room should be minimised during the procedure

- Intubation is thought to be a high-risk procedure for viral spread. It should be performed by the most skilled operator and with full pre-oxygenation and minimal bag-mask ventilation in order to minimise total exposure
- The room/area/ambulance should be cleaned 20 minutes after the procedure has finished (if cleaned before then there may still be some aerosolised virus in the air) This will not be possible in transit so the ambulance should proceed to its destination as planned. A deep clean will be required at the end of the journey when the team return to base.

Critical care considerations

- A closed suctioning system must be used – these are available in the COVID-19 pouches in the blue equipment bag.
- Ventilator circuits should not be broken unless necessary
- Ventilators must be placed on standby when carrying out bagging. This relates to unit ventilators. If you need to disconnect from the transport BabyPAC this can be switched off to preserve gases
- The Transport Neopod can continue to be used to provide humidification in transit.

Removal of PPE

PPE should be removed in an order that minimises the potential for cross-contamination. The order of removal of PPE is suggested as follows, consistent with Public Health England guidance:

1. Peel off gloves and dispose in clinical waste (In room)

2. Perform hand hygiene (In room)

3. Remove gown by using a peeling motion, fold gown in on itself and place in clinical waste bin (In room)

4. Remove goggles/visor only by the headband or sides and dispose in clinical waste (In room)

5. Remove respirator from behind and dispose in clinical waste (Out of room)

6. Perform hand hygiene (Out of room)

6. Contacts including parents/carers or other visitors

- Parents/carers should not normally travel in the ambulance with a child with suspected Covid-19.

7. Environmental decontamination

There is evidence for other coronaviruses of the potential for widespread contamination of patient rooms/environments, so effective cleaning and decontamination is vital.

- All PPE must be worn when cleaning
- All waste must be bagged (including single use equipment) and kept with the patient until patient infection status is confirmed.
- The trolley used to transport the patient should be disinfected immediately before leaving the receiving units isolation room.

- Trolley and all equipment to be cleaned away from clinical areas with a neutral detergent, rinsed and then re-cleaned with a chlorine-based disinfectant at a minimum strength of 1,000ppm available chlorine.
- Ambulance to be taken off the road and deep cleaned as per existing guidelines before transporting another patient.

8. Supporting documents and Key references

Public Health England Guidance https://www.gov.uk/guidance/coronavirus-covid-19-information-for-the-public

9 Lessons learnt from other transport teams' experience

Several neonatal teams have now moved suspected or confirmed COVID 19 positive infants and have been sharing their learning

- Most teams aim to keep their driver as a "clean" person so they aren't allowing them into the room with the baby.
- Kit bags are being left outside of the baby's room – to keep them clean
- Equipment pouches / bags are passed into the baby's room as need and then double bagged before leaving. These are cleaned on return to base.
- Any paperwork taken into the room of a suspected or confirmed infant should be deemed contaminated and as such should not be taken out of the room.
    - ❖ Other teams have been leaving the majority of their "official" transport documentation outside the "contaminated" room
    - ❖ .A copy of the observation pages from the transport log can be taken into the room and completed as required
    - ❖ Prior to leaving the room with the baby this can be photographed using the transport mobile – this can be cleaned before leaving the room with a Clinell wipe and then once outside of the contaminated room it can be wiped down with a Chlorclean solution. at the end of the transfer
    - ❖ The photograph can emailed to the CenTre Transport nhs.net email account. The address is uho-tr.centreneonataltransportteam@nhs.net
- Teams have been using plastic bags to protect their mobile phone. These can either be wiped down or replaced after each transfer. The waterproof pouches we bought seem to be problematic in that people can't hear clearly through them. They are available in each base if people wanted to try them through.
- Teams are remaining in one set of full PPE when needed for the complete transfer – from arrival in referring unit to departing the referring unit.
- FFP3 masks with a valve on the front should be covered with a normal surgical mask as it may be possible for fluid particles to pass through the valve.
- The National Transport Group website www.ukntg.net contains a section of COVID-19 resources. It is for professionals only and is password protected. Please ask Nicky Davey for the password if you wish to access the resources
- Our neonatal network, EMNODN, also has a website: www.emnodn.nhs.uk which has a COVID-19 section under the Health Professionals tab – this isn't password protected at this time.