Mother COVID19 +ve or suspected
High risk pathway - Level 2 –APG PPE *
GA-maternal section, Infant <34 weeks or with high likelihood of resp support

**See PPE guide appendix 1**
Mother COVID 19 +ve or suspected
Low risk pathway
No GA section, > 34 weeks GA
Active resuscitation unlikely

Aim to deliver in designated room/ theatre

NNU team informed and assess if need to attend

NNU TEAM ATTENDANCE (IF INDICATED)

- Stay outside and decide essential team if entry required
- Be prepared to (don) Level 2 - AGP PPE* outside room rapidly
  - Start with gown and gloves
  - Resuscitaire in delivery room with basic equipment
  - Extra equipment available outside
- Only intervene if baby requires resuscitation / assistance
  - Avoid CPAP/high-flow if possible.
  - Consider deferring possible intubations until in NNU
  - Use Video Laryngoscope if possible
  - Single set resuscitation kit boxes in room

NNU ADMISSION INDICATED? (Senior Decision)

NO

- No testing of baby. Unless symptomatic

  - Baby stays with mother in designated LW area. Or goes to family member, early discharge check

  - Feeding:
    - Maternal surgical mask if available, avoid coughing on baby, Good hygiene

YES

RESPIRATORY SUPPORT?

NO

- Viral testing on days 3 & 5 (single viral swab of nose and throat)

  - Admit to cubicle
  - Level 1 - Droplet PPE*
  - If respiratory support flow > 2l/ min required or aerosol generating procedures (AGPs) i.e. intubation, suction

YES

- Level 2-AGP PPE* for aerosol-generating procedures (AGPs) i.e. intubation, suction

  - Avoid CPAP & high-flow
  - Consider lower threshold for intubation

* See PPE guide appendix 1
Procedure for Neonatal Crash Call Attendance during Covid-19 outbreak

Initial call procedure to remain as usual, crash call to

- Medical first on pager holder
- Medical second on pager holder
- Neonatal Nurse pager holder

All NNU team attend

Mother Covid positive or suspected infection?

NO
Normal procedure
Fluid repellant
Surgical mask plus visor
Medical First on and nurse enter room as usual and assess infant
Medical Second on involvement if required

YES
Medical Second on page holder dons Level 2- AGP PPE* (with FFP3 mask) and enters room
Remaining team wait outside
Assess patient and request additional help if required from waiting team +/- attending consultant

* See PPE guide appendix 1

COVID 19 Neonatal Pathway GGC 09 04 20
Clinical suspicion or proven infection?
Respiratory deterioration not easily explained by other causes
Also consider any recent family or staff positive contacts but
Does not apply to asymptomatic babies who have potential contacts

**YES**

**URGENT VIRAL TESTING***
(SINGLE VIRAL SWAB OF NOSE AND THROAT)

Isolate
All cares in incubator as far as possible
Use filter on Neopuff or rebreathing circuit **
Risk assess for Aerosol Generating Procedures (AGP):

- **No/ minimal AGP**
  - Air or low flow oxygen < 2 l
  - No requirement for bag and mask ventilation or intubation unlikely

- **Level 1 - Droplet PPE***
  - Single cubicle or cohort where possible
  - Incubator care

- **Level 2 – AGP PPE *** for any AGPs**

If respiratory status deteriorates
*review PPE
•consider moving to AGP room before escalating support

- **High risk of AGP**
  - CPAP, Hi Flow or ventilation
  - Patients undergoing intubation
  - Tracheostomies, or, nasal stents or NPA adjunct
  - or copious secretions
  - Ventilated patients
  - **OR**
  - Requirement for bag and mask ventilation or intubation likely

- **Level 2 - AGP PPE ***
  - Must be isolated
  - Large room preferable
  - Incubator care where possible

**Virology results**
If initial swab negative and remains symptomatic keep in isolation.
Repeat at 3 and 5 days
D/W IC after 5 days

- **Level 2 - AGP PPE ***
  - Must be isolated
  - Large room preferable
  - Incubator care where possible

If COVID positive isolate for 7 days, discuss with IC before taking out of isolation

*Virology guidance
** Specialist equipment
***PPE Appendix 1
Management of neonates with possible contact but asymptomatic (not for infants admitted from LW: see LW pathways)

Postnatal contact is defined as physical contact (within 2 m) with a parent or carer who has suspected or confirmed COVID-19, or being in the same room in an open cot of a symptomatic individual (parent, carer or other baby).

**URGENT VIRAL TESTING OF CONTACT***

- **Incubator care**
  - Move to cubicle if possible
  - Isolate completely in incubator
  - Do not remove for feeds or skin to skin care
  - **Level 1 – Droplet PPE***
    - Gloves, apron, mask and visor for all patient procedures.

- **Open cot care**
  - Move to isolation cubicle
  - Minimise contact
  - **Level 1– Droplet PPE***
    - Gloves, apron, mask and visor for all patient procedures.
    - Consider a gown if lifting and holding baby

- **Level 2 PPE for AGPs**

Subsequent management based on swab results

- **Contact swab positive**
  - Test baby on days 3 and 5 post contact
  - Isolate for 14 days post contact
  - If swabs positive manage as per positive baby

- **Contact swab negative**
  - If baby and contact remains asymptomatic and no further concerns, can come out of isolation
  - If ongoing concerns regarding contact, consider repeat testing and keep baby isolated

**Virology guidance**

**Specialist equipment**

**PPE**
NEONATAL PPE Levels

Appendix 1

Non COVID Standard PPE
No suspicion of Covid-19 infection
• Single apron, gloves and standard surgical mask for all patient contact
• Open suction, not in incubator: change to fluid repellent surgical face mask and visor
• Intubation: change to fluid repellent surgical face mask and visor

Level 1 (Droplet) COVID PPE
Suspected positive or proven positive baby
Not on respiratory support other than low flow
No tracheostomy or airway adjuncts
No intermittent mask ventilation and or neopuff
Incubator care
• Gloves, apron and surgical mask
• Goggles or visor if opening incubator and carrying out procedure
• Replace apron with gown and double gloves if you close physical contact with baby

Level 2 (AGP) COVID PPE
Suspected positive or proven positive baby
CPAP, Hi Flow or oscillation
Patients undergoing intubation
Tracheostomies, with intermittent IPPV or copious secretions
NPA stents with copious secretions
Ventilated patients not nursed in an incubator
OR
Requirement for bag and mask ventilation or intubation likely
(n.b. does not include NGT placement or nebulisers)

PPE
• Full gown, double gloves, FFP3 mask, visor or goggles
• Please note if intubating wear full visor
• Incubator care wherever possible
Illustrated guide

Level 1- Droplet PPE
(droplet or low risk asymptomatic
ENT or copious secretions))

Level 2- AGP PPE
(aerosol spread)

Note that masks with a non shrouded valve must be covered in use, e.g. with a visor as illustrated on the right.

Donning and doffing videos on RHC Neonatal You Tube Channel:
Introduction: youtu.be/D707wrq3INM
Donning: youtu.be/umfq-aL3Uq4
Doffing: youtu.be/C8dojESKcCU
Labour ward and theatres? / NNU RHC videos

Filter for neopuffs or rebreathing circuits

Consider use of inline suction ventilated babies
Doffing PPE

Droplet Precautions

- **Doffing of PPE - including decontamination of re usable eye protection in an isolation room**

  The order of removing PPE is important to reduce cross contamination, so the order outlined below always applies even if not all items of PPE have been used.

- **Gloves – assume the outside of the glove is contaminated:**

  Grasp the outside of the glove with the opposite gloved hand; peel off.
  Hold the removed glove in gloved hand.
  Slide fingers of the ungloved hand under the remaining glove at wrist.
  Peel second glove over first glove.
  Discard appropriately inside the room.

- **Gown or apron – assume the gown/apron front and sleeves are contaminated:**

  Unfasten or break ties.
  Pull apron or gown away from the neck and shoulders touching the inside of the gown/apron only.
  Turn the apron/gown inside out.
  Fold or roll into a bundle and discard appropriately inside the room.

- **Second Gloves**

  Remove as per first gloves and wash hands

- **Goggles or face shield – assume the outside of the goggles/face shield is contaminated:**

  Don a pair of gloves and remove eye gear
  To remove, handle by the head band or ear pieces.
  Decontaminate eye protection using Alcohol/Clorox wipes.
  Remove gloves as per above
  Decontaminate hands using ABHR.
  Leave eye protection in the isolation room/donning area. Eye protection should be decontaminated using Alcohol/Clorox wipes before next use.

- **Surgical Mask – assume the front of the surgical mask is contaminated:**

  Untie or break bottom ties, followed by top ties or elastic and remove by handling ties only.
  Discard appropriately inside the room.

**Perform hand hygiene immediately after removing all PPE**
SOP bloods/samples for isolated infants SUSPECTED or POSITIVE COVID -19 In NICU

• Stickers supplied in advance for sample container
• Sample taken by operator in appropriate PPE*
• Second operator dons standard PPE
• Drop sample into clear plastic bag at door of isolation room
• For blood gases
  • Run sample and dispose tube/syringe in sharps box
  • After running sample wipe down analyser with Clinitex wipe or actichlor solution
• Remove gloves, apron
• Perform hand hygiene