

**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**

**Deliver in designated theatre/ LW area**

**Preparation**

Select team and limit entry to essential members  
Don Covid PPE outside room/scrub area

**Level 2 AGP PPE \***

Resuscitaire and essential equipment in theatre  
Transport incubator inside if resp support anticipated  
-If GA you won't be able to open doors for until air "clean"  
Surfactant in bag to protect if not used  
Agree who will be clean team\*\*  
Agree contact for clean team from GA section

**Stabilisation**

Encourage obstetric led DCC  
Follow all usual procedures for safe stabilisation  
Consider use of video laryngoscope if intubating  
Request cord blood to store for IgG /M

**Leaving the delivery Doff PPE in appropriate area**

**NNU ADMISSION REQUIRED? move in closed incubator**

**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**

**VIRAL TESTING ON DAYS 3 & 5**  
(SINGLE VIRAL SWAB OF NOSE AND THROAT)

**RESPIRATORY SUPPORT**  
Nasal flow > 2 l f/min CPAP/Vent

**NO**

**Admit to cubicle or cohort**

**Level 1-Droplet PPE \***

**If respiratory support Flow > 2l/min required or aerosol generating procedures (AGP) follow pathway**

**YES**

**Admit to cubicle**

**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

# NEONATAL MANAGEMENT DURING COVID-19 (Coronavirus)

**Mother COVID 19 +ve or suspected**  
**Low risk pathway**  
**No GA section,  $\geq$  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 (AGP) follow pathway**

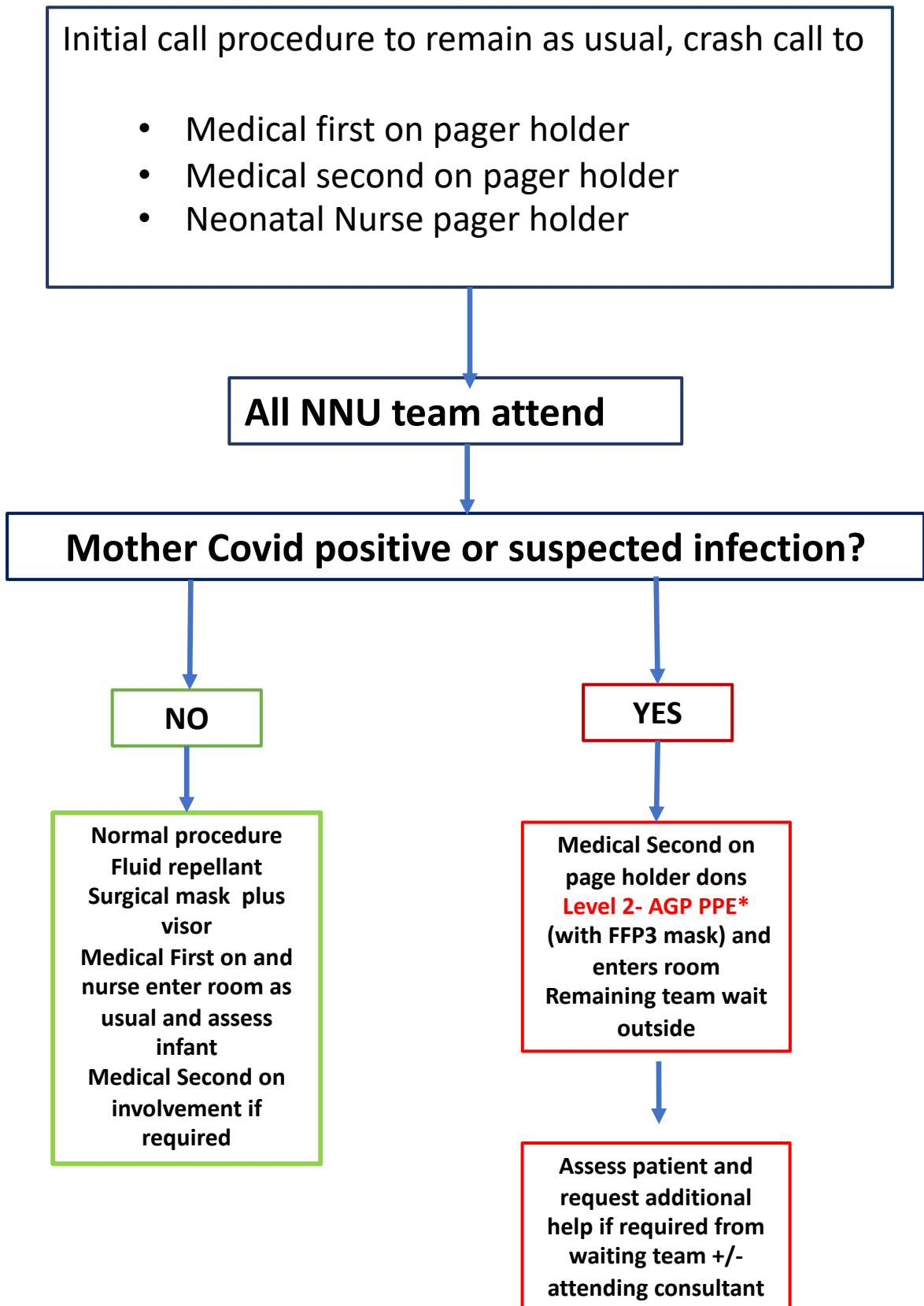
**YES**

**Admit to cubicle**  
**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



\* See PPE guide appendix 1

# NEONATAL MANAGEMENT DURING COVID-19 (Coronavirus)

## Management of positive or suspected cases in neonatal unit

**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  
**AND**  
No requirement for bag and mask ventilation or intubation unlikely

**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 1 - DropletPPE\*\*\***  
Single cubicle or cohort where possible  
Incubator care

**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 \*\*\* for any AGPs**

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

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

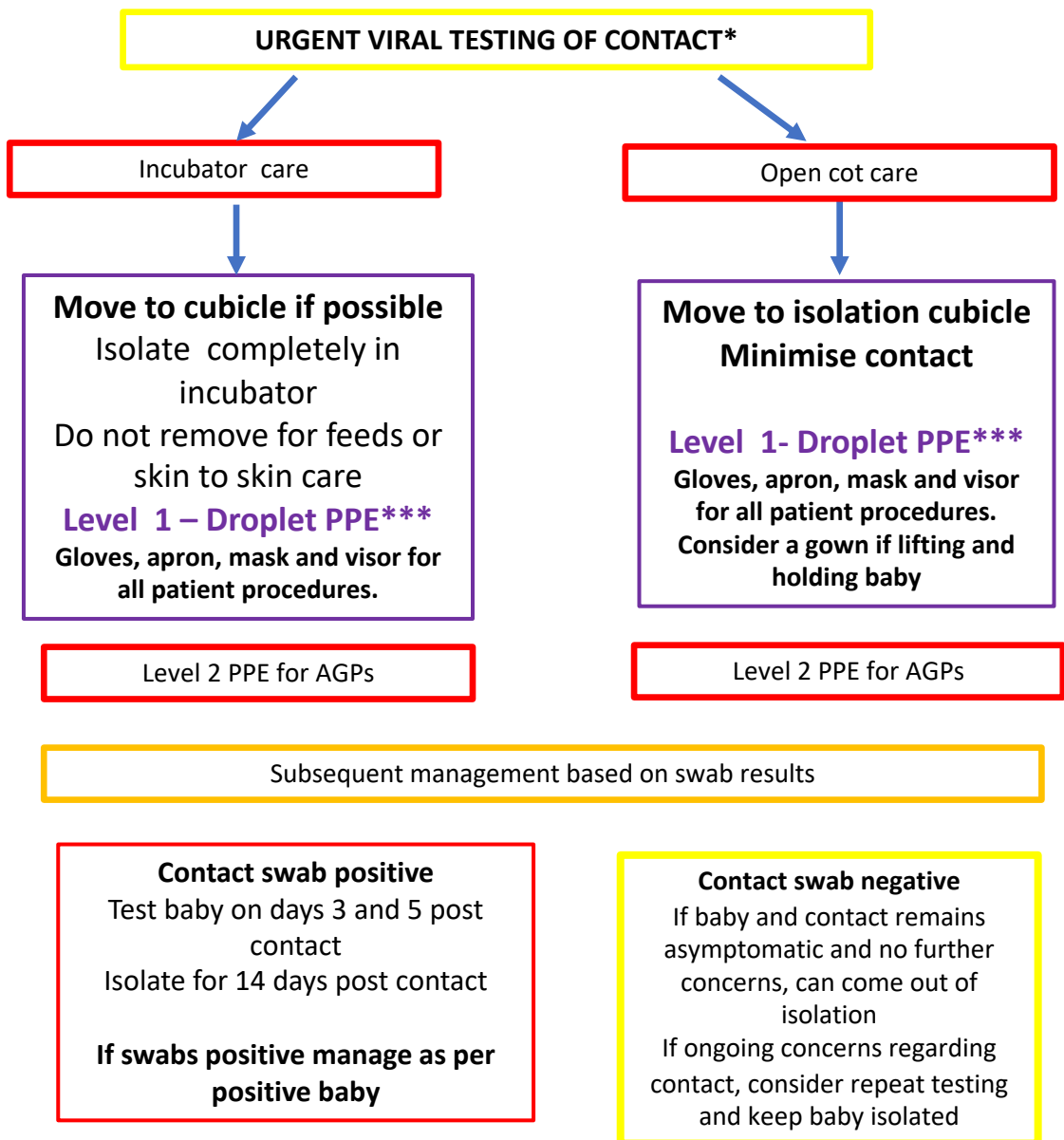
**If COVID positive isolate for 7 days, discuss with IC before taking out of isolation**

\*Virology guidance  
\*\* Specialist equipment  
\*\*\*PPE Appendix 1

# NEONATAL MANAGEMENT DURING COVID-19 (Coronavirus)

## 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).



\*Virology guidance  
\*\* Specialist equipment  
\*\* PPE

## 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**

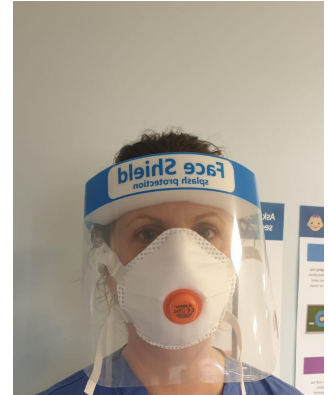
- Full gown, double gloves, FFP3 mask, visor or goggles
- Please note if intubating wear full visor
- Incubator care wherever possible

## 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](https://youtu.be/D707wrq3INM)

Donning: [youtu.be/umfq-aL3Uq4](https://youtu.be/umfq-aL3Uq4)

Doffing: [youtu.be/C8dojESKcCU](https://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