Covid-19 Pandemic
Frequently Asked Questions within Neonatal Services

A BAPM supplement to RCPCH guidance
Updated 15th October 2020
Introduction
This document has been compiled by consensus, considering feedback from perinatal professionals and guidance from both RCPCH and RCOG, as well as national cross specialty guidance on personal protective equipment (PPE). It offers advice on management of specific situations which should be interpreted in conjunction with local and network guidance. The evidence base around SARS-CoV-2 in the newborn has increased significantly in the past six months and there remains no conclusive evidence of perinatal transmission. There is also considerable uncertainty around the validity of SARS-CoV-2 testing in the newborn.

We are grateful for input from many colleagues across the UK including the RCPCH Expert Group, established early in the pandemic to provide COVID-19 guidance for all paediatric services, and Misha Moore, consultant obstetrician. We have worked closely with the team at Bliss and are particularly appreciative of their support in regard to facilitating parental presence in the NNU. Thanks are due to Liz Pilling for providing the flow charts.

This latest amendment reflects up to date consensus on the risk of aerosol generating procedures in the newborn and supersedes all previous versions of BAPM COVID-19 FAQs and other RCPCH guidance. Specifically, it builds upon “COVID-19: Guidance for the remobilisation of services within health and care settings. Infection prevention and control recommendations”, published by NHSE in conjunction with Health Protection Scotland, Public Health Agency Northern Ireland, Public Health England and Public Health Wales on 21st August 2020, and our subsequent statement on 7th September.

This statement has been aligned to the 4 nations IPC guidance and the content agreed by the members of the UK IPC cell. With membership from leads in the specialty across the 4 UK nations, the main role of the UK IPC cell is to work in partnership to agree the decision-making process directing the NHS in executing a command role during the national management of COVID-19. Each administration reports into the incident management team for their respective country. The cell is chaired by Dr Lisa Ritchie, Head of Infection Prevention and Control for NHS England/Improvement. Membership from other organisations includes Scottish Government HAI policy Unit, National ARHAI Unit Scotland, Public Health Wales, Public Health Agency Northern Ireland, Public Health England and National Ambulance Service.

We hope that you will find this updated document and associated flowcharts useful as you continue to care for babies and families in these unprecedented times; please continue to feedback suggestions for amendments.

Dr Helen Mactier, on behalf of the BAPM Executive Committee
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Background

Despite earlier concerns, it now appears unlikely that perinatal transmission of SARS-CoV-2 occurs if correct hygiene precautions are undertaken\(^{1-3}\).

COVID-19 seems generally to be a fairly minor illness in young infants and may be asymptomatic. Infected infants will, however, be potentially infectious. Concerns that illness might be more severe in preterm or otherwise immune compromised babies have not been realised to date, with no deaths attributable to SARS-CoV-2 reported in neonates in the UK between March and April, 2020\(^ {4}\). The risk of staff becoming infected within the neonatal unit (NNU) is not known; potential sources of infection include parents and other staff members as well as babies. There is currently no published report of SARS-CoV-2 transmission within a NNU setting.

The risk of transmitting SARS-CoV-2 infection is increased by aerosol generating procedures (AGPs); this has particular relevance in neonatal settings, where CPAP and high flow oxygen therapies are commonly used. While it is generally accepted that the combination of low or undetectable viral load and small tidal volumes makes AGPs in the first day of life very low risk, early in the pandemic we supported national guidance that aerosol PPE (including a FFP3 mask and eye protection) be utilised whenever a baby born to a symptomatic mother with suspected or confirmed COVID-19 required resuscitation. We included any airway suctioning, including mouth and pharynx, as a potential AGP.

The outcomes for pregnant women hospitalised with severe SARS-CoV-2 infection in the UK have recently been described\(^ {2}\); depending on local prevalence, many more asymptomatic women may be SARS-CoV-2 positive at delivery\(^ {5}\). As the prevalence of infection increases, individual Trusts’ policies for PPE may change – you are advised to follow local and/or network guidance.

Remember to report all suspected or proven neonatal COVID-19 infection via the BPSU. You are also encouraged to consider participating in any of the other COVID-19 studies currently underway.

For an up to date summary of evidence, visit the RCPCH website.

1. Aerosol generating procedures (AGPs) in neonates: - an update

1.1. What are considered AGPs?

- All means of respiratory support, including bag mask ventilation, CPAP, high flow oxygen therapy and suctioning of the lower respiratory tract\(^ {7}\).
1.2. What are not considered AGPs?

- Suctioning of the mouth and upper pharynx only (i.e. above the vocal cords).
- Low flow oxygen therapy.
- Administration of nebulised medication - the aerosol derives from a non-patient source (the fluid in the nebuliser chamber) and does not carry patient-derived viral particles.
- Insertion of a nasogastric or orogastric tube.
- Visual inspection of the palate during routine newborn examination.
- Frenotomy

2. Risk stratification

- National guidance (COVID-19: Guidance for the remobilisation of services within health and care settings, Infection prevention and control recommendations) recommends the following COVID-19 risk pathways, with aerosol PPE (including FFP3 mask) required for AGPs for both medium and high risk patients:
  - **High risk** – patients who are, or are likely to be, infected with SARS-CoV-2.
  - **Medium risk** – patients unlikely to be infected, but who have not had a negative PCR test.
  - **Low risk** – patients confirmed negative.

- A priori, in the absence of testing and prior self-isolation of the mother, AGPs in all neonates, including bag mask ventilation at or shortly after birth, would require staff to don aerosol PPE.
- Given the negligible risk of perinatal transmission and small tidal volumes in the newborn, we recommend that infants in the first 72 hours of life can reasonably be considered low risk unless their mother is confirmed or clinically suspected to be infected with SARS-CoV-2.

3. General issues

- Stabilisation and/or resuscitation at birth should follow current NLS / ARNI guidance, including their guidance for newborn infants born to mothers with suspected/confirmed COVID-19 and the European Resuscitation Council COVID-19 guidelines.

- **Guidance is available on safe transfers between departments**, but when maternal COVID-19 is clinically suspected or confirmed neonates should be transferred in a closed incubator if on respiratory support. Where possible, all procedures and investigations should be carried out in the single room with a minimal number of staff present.
Healthy babies born to suspected/confirmed COVID-19 mothers and who do not require medical intervention should remain with their mother in the postnatal ward. See RCOG guidance for more detail.

For SARS-CoV-2 positive, suspected or at risk babies requiring assisted ventilation, in-line suction with endotracheal tubes should be used when staff are familiar with this and the use of a video-laryngoscope should be considered for intubation when available, to reduce proximity to the baby’s airway. Intubation should only be undertaken by staff with appropriate competencies.

Although incubators do not need to be separated by 2 metres, neonatal units must consider how they enable recommended social distancing for both staff and parents. Measures might include spatial configuration of nurseries but every effort must be made to maintain existing cot capacity.

4. Testing of the neonate

As of 27th April 2020, NHSE recommended testing all non-elective admissions to hospitals – in conjunction with RCPCH, we interpreted this to include all mothers admitted in labour, but not all newborns admitted to NNUs. This position has not changed. The validity of testing the newborn remains unclear, with a significant risk of false positive as well as false negative results, and nasopharyngeal swabs are relatively invasive. For further information see RCPCH guidance. Depending on local prevalence of SARS-CoV-2, it is reasonable to consider testing any baby > 72 hours of age readmitted from home, even with a non-respiratory condition (e.g. jaundice requiring phototherapy), although the risk of infection from an asymptomatic infant is likely to be very low if appropriate hygiene measures are adopted.

Clinical indications for testing and management of babies within hospital settings are outlined below. Early negative samples cannot be considered definitive (and this should be explained to parents at testing) and positive samples will require repeat, confirmatory testing.

We advocate the use of oropharyngeal swabs (or ET secretions if an endotracheal tube is in situ) for the newborn pending validation of salivary testing.

Management of the baby at birth and/or following admission to the neonatal unit depends upon maternal symptomatology and/or the result of maternal SARS-CoV-2 testing.

5. Mother with clinically suspected or confirmed COVID-19 at birth

If the mother is under general anaesthesia, aerosol PPE (FFP3 mask, surgical gown, gloves and eye protection) must be worn.
• If the mother is not undergoing any AGPs, droplet PPE (fluid resistant surgical mask (FRSM), gown, gloves and eye protection) is sufficient for airway positioning and/or oropharyngeal suctioning of the baby.
• FFP3 mask required for any other neonatal airway procedures.
• If there is any risk of the baby being compromised at delivery, the attending paediatric/midwifery team should don aerosol PPE in anticipation of delivery.
• For COVID-19 suspected mothers, rapid/urgent maternal SARS-CoV-2 testing should be undertaken.

6. How do I manage a baby born to a mother clinically suspected or confirmed COVID-19 and who requires respiratory support (AGP)?

• Admit to an isolation cubicle or a cohorted area and nurse in an incubator.
• Don aerosol PPE when directly caring for the baby.
• Test for SARS-CoV-2 (PCR) at 72 hours and again on day 5, whether or not a sample was obtained soon after birth*. If the baby's condition deteriorates, or the respiratory disease is considered atypical after 24 hours of life, the baby should be screened earlier for SARS-CoV-2.

* a SARS-CoV-2 test taken soon after birth may not be reliable and is therefore not clinically indicated.

• Send oropharyngeal aspirate or ET secretions, rather than a throat swab.
• Consider methods to reduce viral spread into the NNU including placing the expiratory limb of the CPAP into the incubator.
• The baby should be considered potentially infectious and be nursed in an incubator for 14 days if the mother is confirmed positive. Once the baby no longer requires AGPs, droplet PPE would be appropriate in the absence of a positive test.

6.1. Mother

• The mother should not attend the NNU until she has tested negative (clinically suspected COVID-19) or (in the case of confirmed infection) until 14 days after the onset of her symptoms and she is symptom free*. Mothers who test positive for SARS-CoV-2 after they have been discharged from the maternity unit, and who do not require to be readmitted with COVID-19 need only self-isolate for 10 days (8).

* the guidance for mothers who were admitted to hospital primarily for maternity reasons, and not for COVID-19 per se is currently under review
6.2. Partner

- If the mother tests positive, the partner will need to self-isolate for 14 days from the onset of the mother’s first symptoms, even if asymptomatic and therefore cannot attend the NNU.

6.3. Skin to skin contact on respiratory support

- This should generally not be permitted while the infant requires on-going respiratory support and is still potentially infectious but may be considered in exceptional circumstances. In this case, unless more than 14 days have elapsed since the onset of symptoms and she is now symptom free, the mother will require to wear a FRSM, to protect both the baby and staff members. The baby should be cared for in an isolation cubicle and attending staff members should wear aerosol PPE. For end of life care, other family members should be offered the opportunity to wear a FFP3 mask after fitting and appropriate training, to protect themselves while the baby is still potentially infectious. Where other family members are known or suspected SARS-CoV-2 positive or self-isolating they should not visit the NNU.

7. How do I manage a baby born to a mother with clinically suspected or confirmed COVID-19 who requires admission to NNU but does not require respiratory support?

- Admit to an isolation cubicle or a cohorted area and nurse in an incubator.
- If the mother tests negative, the baby should be nursed thereafter as normal.
- If the mother is confirmed positive or while her tests are outstanding, the baby should be tested at 72 hours and again on day 5 (oropharyngeal swab).
- Use droplet PPE for routine baby cares. Eye protection if risk of splashing.
- If the baby is asymptomatic at 72 hours, they can be moved out of an isolation room but should remain in an incubator for 14 days or until discharge, whichever is sooner. If there is a deterioration, include SARS-CoV-2 respiratory PCR testing and consider isolation if respiratory support is required.

7.1. Skin to skin contact (no respiratory support)

- Skin to skin contact can be undertaken from 14 days after the onset of mother’s symptoms if she is well. Other family members will commonly be self-isolating – if they are outside of the infectious period for COVID-19 or completed 14 days’ self-isolation they may undertake skin to skin contact.
7.2. Discharge

- If the baby is well enough to be discharged from the NNU, they may be accommodated in an isolation room in the postnatal ward with their mother, or sent home to continue isolation, as clinically appropriate and with appropriate safety netting advice.

8. Asymptomatic mother who has undergone routine testing

8.1. Mother tests positive

- The infant should be isolated, tested and managed according to the guidance above for infants born to clinically suspected or confirmed COVID-19 positive mothers (cf. 4. Mother with clinically suspected or confirmed COVID-19).
- Consider the possibility of a false positive test for the mother and discuss with the local virology team.

8.2. Mother’s test is awaited

8.2.1. At birth

- Droplet PPE (FRSM, gown, gloves, and eye protection) for all airway procedures. FFP3 mask is not required.

8.2.2. Baby requires NNU admission

- Baby without respiratory distress – no need to isolate, but if facilities permit, it would be reasonable to place them in a cohort room with other infants whose mothers are awaiting test results. Nurse in an incubator and monitor for signs of COVID-19. If the infant develops signs, or if the mother’s test result is reported as positive, they should be isolated and tested (see guidance in preceding sections).
- Baby who requires respiratory support (AGP) < 72 hours of age
  o In the view of the steering group, in this situation the risk of the baby being infected/infectious is very low. Weighing up the risks/benefits, it is reasonable not to isolate the baby, but simply to nurse in an incubator and to use droplet PPE. In areas where the prevalence of SARS-CoV-2 is high, or when the mother has a confirmed COVID-19 contact, Trust guidelines may mandate that the baby is isolated and aerosol PPE worn.
  o Every effort should be made to ascertain the maternal test result with rapid SARS-CoV-2 testing if possible.
8.3. Mother tests negative

- No need to isolate.
- Even if baby meets the case definition by virtue of requiring early respiratory support for an anticipated non-COVID-19 respiratory pathology (e.g. RDS), there is no need to test and isolate. Use droplet PPE for non-COVID-19 suspected patient as per Trust guidelines.
- If there is subsequent clinical concern that an infant is not following a typical clinical course for an anticipated non-COVID-19 respiratory pathology, or that the mother has developed symptoms, both the mother and infant should be tested and the baby isolated.
- Remember to also investigate and treat for non-COVID-19 pathologies (e.g. sepsis).

9. How do I manage a baby confirmed SARS-CoV-2 positive, regardless of respiratory status?

- Admit to an isolation cubicle or a cohorted area and nurse in an incubator.
- For babies not receiving respiratory support, droplet PPE with eye protection if risk of splashing of any body fluids; minimise handling as far as possible with clustered cares.
- Aerosol PPE for AGPs (includes CPAP and high flow therapy).
- In the event of acute collapse, aerosol PPE should be donned before undertaking intubation. If the baby does not respond to airway positioning manoeuvres, oral suctioning and facial oxygen it would be reasonable to undertake bag mask ventilation wearing droplet PPE with the baby in the incubator, whilst waiting for other staff to don aerosol PPE.
- The value of retesting in the neonate has not been fully assessed – if the baby is asymptomatic and at least 10 days from onset of symptoms it would be reasonable to move out of an isolation room, but the baby should be kept in an incubator for 4 days more (i.e. a total of 14 days) with use of droplet PPE.
- If the tests on day 3 and 5 are positive and the requirement for respiratory support continues beyond 14 days, infants should remain in isolation whilst receiving any respiratory support that is classified an AGP, until they have had two negative PCR tests, performed at twice-weekly intervals. Following two negative PCR tests, they can be moved out of isolation, but they must remain in an incubator whilst requiring any AGP.

9.1. Skin to skin contact

- Skin to skin contact should generally be avoided while the infant requires ongoing respiratory support but may be considered in exceptional circumstances – see under “baby born to a mother with clinically suspected or confirmed COVID-19”. If the mother or her partner have not had COVID-19, consideration should be given to offering aerosol PPE, after mask fitting and appropriate training.
9.2. Discharge:

- If the baby is well enough to be discharged from the NNU, they may be accommodated in an isolation room in the postnatal ward with their mother, or sent home to continue isolation, as clinically appropriate and with appropriate safety netting advice.

10. How do I manage a baby in the NNU who requires ongoing ventilatory support (> 72 hours of age) but has not tested positive for SARS-CoV-2?

- Babies who require ongoing ventilatory support (including high flow oxygen) should be tested weekly for SARS-CoV-2 to maintain their green risk status.
- Those babies whose symptoms started prior to 72 hours of age or who have tested negative can be managed by staff wearing droplet PPE unless subsequent tests prove positive for SARS-CoV-2.

11. How do I manage a baby in the NNU who has had postnatal contact with a clinically suspected or confirmed case of COVID-19?

- Postnatal contact is defined as physical contact (within 2 m) of at least 15 minutes’ duration with any person who develops suspected or confirmed COVID-19 within the following 48 hours.
- Test potential source for SARS-CoV-2 – if negative, no further action (as long as baby is asymptomatic). If symptoms persist and likely to represent COVID-19, consider a repeat test.
- If source is positive and the infant is asymptomatic (on NNU for non-respiratory reasons or improving respiratory status with anticipated non-COVID-19 pathology), they do not require to be tested, but they should be isolated (incubator care) and observed for signs of respiratory distress or other features that might suggest neonatal COVID-19 for the next 14 days (or discharge, whichever occurs first). If the baby develops signs, they should be tested for SARS-CoV-2.
- If one or other parent is the contact, and they have not been admitted to hospital with COVID-19, they will require to isolate for at least 10 days. The other parent will need to isolate for 14 days.

11.1. Skin to skin contact

- Skin to skin contact is permissible with either parent (or both parents) if they are not the suspected or confirmed contact and should be encouraged in the usual way.

12. When should I consider COVID-19 in a baby who deteriorates whilst receiving neonatal care?

- Many of the signs of COVID-19 such as temperature instability, increase in oxygen requirement or respiratory distress are similar to signs which might be seen in preterm or sick term babies on neonatal units and screening all babies with these signs could create significant problems trying to isolate or
segregate babies. We suggest considering screening for SARS-CoV-2 any symptomatic baby who has a known contact with someone who has or may have COVID-19, or any baby who displays a clinical course which is unusual or different from that normally seen. In areas of high prevalence, the threshold for screening should be lower.

- Screen and isolate as per baby of a mother with suspected or confirmed COVID-19.

13. What about a baby in the postnatal ward with a mother with clinically suspected or confirmed COVID-19?

13.1. Asymptomatic baby

- If the baby is asymptomatic, droplet PPE.
- The NIPE is not an AGP (including inspection of the palate). Full visualisation of the palate should be undertaken as normal, using a tongue depressor if required.
- Mother should be advised to wear an apron and a mask when feeding baby, and to practise good hand hygiene. Breast feeding is not contraindicated. If the mother is coughing, she should be wearing a FRSM.
- The management will be the same for a well baby born to an asymptomatic mother whose test result is not known – droplet PPE and no need to test the baby.
- If the baby becomes symptomatic, manage as per 12 – baby who deteriorates while receiving neonatal care.

13.2. Discharge early if the mother is well –

- Ensure as many routine procedures as possible are undertaken before discharge, and/or that mechanisms are in place for prompt review in the community. Provide good safety-netting advice. The baby should be considered potentially infectious for 14 days from birth.

14. What about older ex-preterm babies with Chronic Lung Disease?

- While there is no evidence to inform practice, it seems prudent that these babies should be nursed in an incubator, or in an isolation cubicle if possible. Parents should be encouraged to practise the strictest hand hygiene, to report any possible symptoms of COVID-19 and to self-isolate immediately in the event of any symptoms developing.
- Discharge on home oxygen should be facilitated if practical, with good safety-netting advice.
- Follow national guidance on administration of palivizumab.
15. How do we manage provision of expressed breast milk (EBM) in the NNU when mother is SARS-CoV positive?

- To date viral RNA has been reported only very rarely in fresh breast milk of COVID-19 confirmed mothers. The database is, however, small. The main risk of breastfeeding for the infant is the close contact with the mother, who is likely to share infective airborne droplets. Current national advice for well babies of COVID-19 suspected or confirmed mothers is that the benefits of breast feeding outweigh any theoretical risks.

- For unwell or preterm babies in the NNU the evidence is less clear.

- Practitioners should discuss with parents the pros and cons of provision of EBM to babies in the NNU, noting the current uncertainty. A joint decision should be informed by factors including the gestation and clinical condition of the baby, transfer of protective maternal antibodies, the availability of donor breast milk and parental choice. Other coronaviruses are destroyed by pasteurisation.

- SARS-CoV-2 positive mothers who are expressing milk must be facilitated to practise excellent hand hygiene, and care taken to ensure that bottles containing EBM are not externally contaminated. The virus is deactivated by chlorine disinfectants. EBM of COVID-19 suspected or positive mothers should be stored in a separate fridge or freezer from that of non-suspected or negative mothers. NNUs should have clear guidelines around handling, storage and use of EBM in these circumstances and suspected/infected mothers should have exclusive use of a breast pump.

- If it is decided to withhold mother’s own breast milk, the mother should be encouraged to express and discard her milk, to maintain lactation until she is no longer infectious (10 days after onset of symptoms). Repeat testing of mother is not necessary. Parents should be signposted to appropriate feeding and emotional support during this period and reassured that breastfeeding can still take place after a period of using donor breast milk / formula if lactation is maintained.

- Consider testing a sample of EBM for SARS-CoV-2 once lactation is established as this may help with future understanding of this virus.

16. How should we manage parents and visitors to the Neonatal Unit and/or Transitional Care Unit (TCU)?

- We recognise that many Trusts and NNUs have felt it necessary to reduce visiting in the current pandemic. This reflects a need to protect staff as well as babies and families in our care. Besides reducing infection risk, there are some advantages to fewer visitors, including potentially more time for staff to spend caring for the mother and her partner.

- Neonatal services present a unique situation in terms of “visitors” and it is essential that the mother and her partner are never considered to be visitors within the neonatal unit – they are partners in their baby’s care, and their presence should be encouraged (See Bliss statement.) The mother and her...
newborn are a biological entity and should have unrestricted contact when admission to a NNU is unavoidable.

- In order properly to involve parents in decision making about their baby’s care, NNUs should identify how to facilitate parental presence at all times of day, including on ward rounds, while maintaining social distancing within the NNU. The benefits of extended parental contact, including skin to skin care and active involvement in their baby’s care are well documented, as are the long established advantages of breast feeding. At such a stressful time it is important for both parents to be able to be present together, at least for part of the day, unless such practice would be clearly detrimental to other babies and/or staff in the NNU or TCU.

- Parental vulnerability may be heightened by the current pandemic; remember to signpost parents to available resources for support. The importance of working in cooperation with maternity services to ensure maternal well-being cannot be over emphasised.

- It would generally not be appropriate for SARS-CoV-2 positive or self-isolating parents to attend the NNU or TCU – in such circumstances every effort should be made to facilitate remote contact by use of video technology and/or social media.

- The same arrangements for testing should be offered to parents as are applied to staff, in order to minimise unnecessary separation. This includes testing of symptomatic parents and testing of suspected contacts.

- An asymptomatic mother who is awaiting the result of routine SARS-CoV-2 admission screening should usually be allowed to attend her baby in the NNU and to provide skin to skin care (see guidance under testing of asymptomatic mothers).

- Units should have clear policies on the use of PPE for both parents and staff, and this should include consideration of aerosol PPE for parents (with appropriate training) in some situations such as unstable ventilated babies or during end of life care when the baby has tested positive. It seems sensible that SARS-CoV-2-negative parents should wear the same PPE as staff caring for their baby.

- For babies critically ill or receiving palliative or end-of-life care, everything possible should be done to achieve parental presence and participation in cares, even for SARS-CoV-2 positive parents.

- Other family members facilitating parental attendance should wear face masks or face coverings as per national guidance if they require to be within the hospital building.

17. What advice should I give to parents taking their baby home?

- Both NHS England and the Scottish Government have published parental information leaflets which should be offered to parents before they leave the NNU or postnatal ward. These are available [online].
It is important to reassure parents that their baby is extremely unlikely to become unwell, even if they become SARS-CoV-2, but that they could become unwell for a host of other reasons. Parents should be encouraged to seek advice early if they have any concerns whatsoever; in the case of a baby recently discharged from the NNU this advice would probably best come from the NNU team in the first instance.
18. References


7. Assessing the evidence base for medical procedures which create a higher risk of respiratory infection transmission from patient to healthcare worker. :15. https://hpspubsrepo.blob.core.windows.net/hps-website/nss/3055/documents/1_agp-sbar.pdf

Appendix 1 – Flow Chart 1- Management of the baby at delivery

Mother-on-Red-pathway (clinically-suspected or confirmed Covid-19)
- Consider-rapid SARS-CoV-2 testing of mother if clinically suspected
  - Mother-on-Amber-pathway (status unknown but clinically well)
    - Mother-undergoing AGP or GA?
      - Yes
        - Aerosol-PPE for delivery attendants in theatre
        - Follow usual pathways for admission or postnatal care
          - Baby considered “green”
          - Mother-on-Red-pathway
        - Mother-on-Green-pathway (SARS-CoV-2 negative)
      - No
        - Droplet-PPE for delivery attendants

Mother-on-Red-pathway (clinically-suspected or confirmed Covid-19)
- Resuscitation of baby not predicted to be required
  - Baby only requiring airway positioning or oropharyngeal suction
    - Mother not undergoing AGP or GA
    - Droplet-PPE for delivery attendants

Mother-undergoing AGP or GA?
- Yes
  - Aerosol-PPE for neonatal team
  - Follow usual pathways for admission or postnatal care
    - Baby considered “green”
    - Mother-on-Red-pathway
- No
  - Mother-on-Green-pathway (SARS-CoV-2 negative)

Resuscitation of baby required?
- Yes
  - Aerosol-PPE for neonatal team
  - Follow usual pathways for admission or postnatal care
    - Baby considered “green”
    - Mother-on-Red-pathway
- No
  - Well baby, no resus required
  - Baby well post resuscitation
  - Remain with mother

Baby needs admission to NNU?
- Yes
  - See flow chart 2
- No
  - Well baby, no resus required
  - Baby well post resuscitation
  - Remain with mother
Appendix 2 – Flow Chart 2 – Neonatal Unit Admission

- Infant of mother with clinically suspected/confirmed Covid-19 at delivery or on postnatal ward needing neonatal unit admission
  - Admit to isolation/cohoot
    - Use aerosol PPE if AGP performed
  - Baby on NNU with clinical concerns of Covid-19
    - Admit to isolation/cohoot room
      - Test for SARS-CoV-2
        - Use aerosol PPE if AGP performed
  - Respiratory symptoms (new or ongoing)
    - Well or no respiratory distress by 72 hours
      - Out of isolation/cohoot room
        - Baby remains in “self-isolation” along with family i.e. keep in incubator until day 14
          - Low threshold for repeat testing if clinical concerns
        - Positive test
          - If asymptomatic and 10 days post symptom onset/test can come out of isolation but remain in incubator until 14 days
            - If ongoing AGP/respiratory support after 10 days-test twice a week
              - To remain in isolation until 2 negative tests and remain in incubator until no further AGP

- Positive maternal SARS-CoV-2 test after asymptomatic screening, baby currently inpatient on NNU
  - If mother positive
    - Send baby SARS-CoV-2 tests on day 3 and 5

- Mother SARS-CoV-2 negative (and not high clinical suspicion)
  - Treat as normal
    - Exit Covid pathway
      - Negative test
        - Out of isolation/cohoot room
          - Normal care but if on NNU to keep in incubator for 14/7

- Test all babies requiring ongoing aerosol generating procedures weekly for SARS-CoV-2 to maintain “green” status