COVID-19 - guidance for paediatric services

Health Policy team

This guidance has been prepared to provide members / health professionals working in paediatrics and child health with advice around the ongoing outbreak of COVID-19. It also provides signposts and links to further information developed by national bodies.

We will update this guidance on a regular basis as new data becomes available. We'll work with others to bring together the best available information. Advice and guidance should be used alongside local operational policies developed by your organisation.

Last modified
26 March 2020

Post date
13 March 2020

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We are reviewing this content each weekday, and will publish any updated guidance.

Updates in this version (published 26 March 2020):

- Pregnancy: NHS England guidance on use of PPE for care of women with COVID-19 in labour added.

- Mental health, learning disability and autism: NHS England guidance 'managing capacity and demand within inpatient and community, mental health, learning disabilities and autism services for all ages' added.

Updates in version published 25 March 2020:

- Occupational health: Scottish Government guidance added for NHS staff.
- Working in acute paediatrics and emergency departments: tonsillar examination - infection control PDF added; links added regarding migrant healthcare.

Updates in version published 24 March 2020:

- Safeguarding, looked after children and vulnerable children processes: Link to updated PHE and NHS Inform guidance on migrant healthcare
- Acute paediatrics and EDs: added links to resources published by RCEM and NICE; Added links to discharge arrangements in Scotland.
- Children at increased risk of COVID-19: updated with links to guidance and advice on shielding.

If you need to know what updates occurred on days prior to those specified above, contact us on health.policy@rcpch.ac.uk.

To get an email notification of each update, you can log in and select the pink button in the grey box 'Notify me when updated'.

Resilience and self-care

As a healthcare professional, the COVID-19 outbreak is likely to add to your workload and heighten stress levels. The RCPCH encourages you to try and look after yourself during this uncertain and busy time:

- A lack of sleep lowers your ability to concentrate, impedes your potential to make effective decisions and compromises your immune system. The only way to remedy this is to get more sleep. The NHS has more information on the impact of not getting enough sleep, and advice on sleep and shift work is available from the BMJ.
- Take regular breaks before you feel that you're getting tired or burned out. This might feel counterintuitive but it will build your resilience to stressful situations.
- Ask colleagues for help if you feel overwhelmed or that your ability to care for your patients is being compromised.
- Try and do as many things as you usually would, such as talking with family and friends.
- Take a break from social media and the news as much as you are able to. The constant COVID-19 news cycle and commentary can have a negative impact on your mental health, especially for those that work in the healthcare sector.

If you are an RCPCH member you can sign-up to receive email alerts when this guidance updates every weekday, so that you are better able to take a break from Twitter and still stay informed. Log in and follow instructions at the top of this page.

NHS Employers (part of the NHS Confederation) have also published guidance on supporting the physical and mental wellbeing of staff. This includes guidance on occupational health

, staff wellbeing and support, mental wellbeing and fatigue.

Preparing for COVID-19

- Understand the current advice from Public Health England (PHE) on which patients should go to hospital, and who should stay at home and advise accordingly.
- Understand the Clinical guide for the management of paediatric patients during the coronavirus pandemic document, published by the NHS.
- Ensure that staff are familiar with local operational procedures and are appropriately trained. For example:
    - Staff should be aware of the location where possible cases will be isolated and who to contact in their organisation to discuss possible cases.
    - Guidelines on the use of Personal and Protective Equipment (PPE) are changing frequently and health professionals should regularly review updated guidance.
    - Staff involved in assessing or caring for confirmed cases of COVID-19 should be trained in using a respiratory mask and that fit testing has been undertaken before this equipment is used.
    - Staff caring for children with confirmed COVID-19 or undertaking aerosol generating procedures should be trained in the safe donning and removal of PPE.
    - Planning for cohorting should be undertaken as soon as possible to ensure criteria for groups are established. Cohorting should be for established diagnosis.
- NHS Inform in Scotland has produced information for professionals advising the public.
- There is a child-friendly poster explaining COVID-19, available to download at the bottom of this page, shared with permission and thanks to University Hospitals Southampton NHSFT.
- RCPCH statement on use of ibuprofen: Experts at the RCPCH have recommended that parents treat symptoms of fever or pain related to COVID-19 with paracetamol, rather than ibuprofen. While there is no significant scientific evidence that ibuprofen is associated with worse outcomes in COVID-19 infection, this advice is offered as a precaution

Occupational health

- It is important that health professionals do not attend a healthcare setting if there is a risk they could spread COVID-19, in line with current PHE guidelines. This guidance also includes a chart that illustrates how long household contacts need to self-isolate.
- The Government has produced guidance on what to do when health workers, patients or visitors have come into contact with a confirmed case of COVID-19 while not wearing personal protective equipment (PPE).
- All staff should be aware of who to contact within their organisation if they develop COVID-19 compatible symptoms.
- NHS Employers (part of the NHS Confederation) have published guidance on supporting the physical and mental wellbeing of staff. This includes guidance on occupational health, staff wellbeing and support, mental wellbeing and fatigue.
- The Scottish Government has published guidance for NHS Scotland staff.
- Health professionals should seek advice from occupational health if they are pregnant or concerned that they are vulnerable to COVID-19 - see RCOG guidance on pregnancy. Older people, and people with pre-existing medical conditions (such as

asthma, diabetes, heart disease) are more likely to become severely ill with the virus. Recommendations regarding possible adjustment for staff at increased risk are included in this letter from the NHS Chief Executive and Chief Operating Officer (PDF). There is also guidance from NHS employers on supporting vulnerable staff.
- Public Health England have published guidance on protecting people who are extremely vulnerable to COVID-19.
- Health Protection Scotland has produced COVID-19 guidance for Social or Community Care and Residential Settings including occupational exposure.
- The guidance for health professionals in England, Scotland, Wales and Northern Ireland is being reviewed on a regular basis.
- Information about workforce, including the vulnerable workforce, is available from our guidance for paediatric staffing and rotas.

Safeguarding, looked after children and vulnerable children processes

Preparations

- Throughout these exceptional times, all professionals who look after children and young people, must continue to base their judgments on the best interests of the child or children that they are caring for. This fundamental of good paediatric practice is the constant that must not alter however much the circumstances change around us.
- Paediatricians and other colleagues involved in safeguarding children, looked after children (LAC), adoption, child death and children with special education needs (SEN) work may already be part of, or be drafted back into, providing acute lifesaving medical services or support of those services.
- The result of this will be a reduction in paediatricians and other colleagues' ability to contribute fully to the multi- agency processes and these problems will be mirrored by workforce and safety issues within partner agencies. We do not yet know whether or when certain statutory processes may be suspended and how long this may last.
- Paediatricians and other colleagues should ensure safeguarding arrangements are considered in the context of an influx of young adults into children's hospitals and wards. Every reasonable effort should be made to separate different age groups.
- Key vulnerable children professionals should contribute to the discussions for contingency planning with regard to what will happen when parents, foster carers, connected carers and residential home workers become unwell and can't look after children in their care.
- Key vulnerable children professionals should contribute to discussions for contingency planning with regards to how food and medicines will be supplied to vulnerable children and families in households in self-isolation.
- Public Health England have published guidance on the provisions being made for vulnerable children and young people.

Good practice for paediatricians

- Designated and named professionals, or their equivalents, should meet with colleagues in social care and the police to discuss what the different levels of support may be, which are likely to vary in a step wise manner as local health resources change.
- Only clinically essential face-to-face meetings should occur.

- Telephone or video conferencing facilities should be used wherever possible in place of face-to-face meetings whether they be strategic or for individual case management purposes.
- Telephone or video conferencing may also be utilised when available to carry out consultations with patients and their families when clinically necessary.
- NHSE published new requirements on how providers of community services can release capacity to support the COVID-19 preparedness and response. You can read guidance for LAC teams, safeguarding and sexual assault services (PDF).
- Public Health England has updated the NHS entitlements: migrant health guide to state that no charge can be made to an overseas visitor for the diagnosis or treatment of COVID-19. NHS Inform in Scotland has also updated their guidance on this topic.

During the peak of the pandemic paediatricians and other colleagues may only be able to:

- Treat injured children where there is no option but to admit to hospital. This group of children are likely to have already presented to emergency departments with fractures, burns and head injuries, etc.
- Attend to the essential health needs of sexually assaulted children, eg supply Post-Exposure Prophylaxis following Sexual Exposure (PEPSE), Hepatitis B vaccine, pregnancy testing and sexually transmitted infections (STI) screening. Where possible this should be via liaison with primary care or other non-hospital services, by developing local risk assessment and care pathways with social care and the police. The Faculty of Forensic and Legal Medicine has produced guidance on Sexual Assault Referral Centres (SARC) requests for Forensic Medical Examination based on the current situation.
- Provide health based telephone advice to social care and the police about urgent child protection, LAC, adoption, and child death matters. This advice service may be arranged on a rota basis within existing health networks.
- Paediatricians and other colleagues should remain mindful of contextual safeguarding issues. This advice will be based on their best clinical judgement and on resources available at the time.

The Royal College of Nursing, NHS England and the National Network of Designated Healthcare Professionals (NNDHP) are supportive of the above guidance for professionals working in safeguarding and looked after children's areas of practice. We would like to remind all concerned to ensure they also follow local operational policies developed by their organisation.

Pregnancy

Royal College of Obstetricians, Royal College of Midwives, RCPCH, Public Health England and Health Protection Scotland have produced guidance for healthcare professionals on Coronavirus (COVID-19) infection in pregnancy. There is also a Q&A taken from this guidance that provides information for pregnant women and their families.

NHS England has produced guidance on use of PPE for care of women with known or suspected COVID-19 in labour (PDF).

PHE guidance for households with possible coronavirus infection would indicate that if a mother and baby leave hospital and return to share a home with someone with symptoms of

COVID-19 infection they should self-isolate.

Working in community paediatrics

This section has been produced with the British Association for Community Child Health (BACCH).

This section first addresses guidance for community practitioners where there is suspected COVID-19 infection in community settings. The role and priorities of community services in supporting the response to COVID-19 (England only) are then outlined.

There is a directory of guidance for community based health and social care and ambulance services available from the NHS, which signposts to various resources. This may be helpful to supplement the below guidance.

Children with suspected COVID-19 infection in community settings

Isolation of children from their household and other child health professionals

- Community paediatricians should consider the entire care package when thinking about isolation, in partnership with those involved; parents and other carers that work with the child, for example.
- A coordinated approach should be taken to minimise risk. This necessitates a case by case approach to manage risk/benefit for the child and carers/clinicians.
- PHE advice should be taken regarding self-isolation with children; PHE acknowledges that some advice may be difficult to apply if the person isolated is a young child. Clinicians should use their professional judgement in deciding whether the recommendations are appropriate on a case by case basis.

Home visits

- PHE has published guidance on home care provision that includes steps for home care providers to maintain delivery of care. This includes: reviewing client lists and sharing this information with local partners as appropriate and necessary, working with local authorities to establish plans for mutual aid, and noting arrangements by local authorities, CCGs and NHS111 to refer vulnerable people that are self-isolating to volunteers that can provide support.
- Clinicians should consider whether visits are necessary and, if so, use telemedicine

tools as much as possible. This may include telephone consultations or similar, depending on the resources available.
- The GMC has a flowchart that be helpful to determine whether remote consultation is appropriate. This must be considered in the context of risks posed by COVID-19 and on a case by case basis.
- When considering whether visits should be conducted as planned, clinicians should also consider their own safety and the safety of the other children that they provide care for.
- If a clinician believes they may have become infected with COVID-19, they should self-isolate and follow NHS advice.
- If a clinician is in a patient's home and suspects COVID-19 infection among the patient or a member of the household, they should follow PHE guidance concerning PPE and safe working procedures to minimise the risk of transmission.

Community clinics

- If a clinician feels that the risk outweighs the benefit of a child vulnerable to infection attending a community clinic, such as a child with complex medical needs, they should discuss this with the child's parent/carer and other professionals involved in their care as appropriate.
- If a clinician working in a community clinic suspects that a patient has COVID-19, they should follow the PHE guidance for primary care clinicians as much as practicable and possible. This includes avoiding physical examination of a suspected case.
- Also see Health Protection Scotland guidance for primary care.

Educational settings

- If a clinician working in a school suspects that a patient has COVID-19, they should follow the PHE guidance for educational settings as much as practicable and possible.
- Guidance from PHE on residential care provision may also be relevant to some educational settings.
- The clinician should discuss the case with relevant staff members, such as the headteacher, and call NHS 111, NHS 24 in Scotland, NHS Direct in Wales and GP out of hours in Northern Ireland.
- The clinician should direct staff members to the guidance for educational settings for further information about decontamination, school closure and other measures.

Mental health, learning disabilities and autism

- The national mental health and learning disability and autism teams and NHSE-I have set up a COVID-19 response cell. More information is available in their update published 15 March 2020.
- The cell has published guidance: Managing capacity and demand within inpatient and community mental health, learning disabilities and autism services for all ages (PDF) on 25 March 2020. The guidance outlines general principles:
    - People with mental health needs, a learning disability or autism should receive the same degree of protection and support as other members of the population
    - Providers may need to make difficult decisions in the context of reduced capacity and increasing demand

    - Providers should consider both physical and mental vulnerability
    - Partnership working is crucial
    - Digital technology is an essential tool to maximise delivery
    - Providers should bear the longer term impact of the COVID-19 outbreak in mind, and seek to minimise changes that impact on the capacity of the system in the long term.
- The guidance then discusses a range of considerations, such as funding, cohorting and additional considerations for community-based teams.

Medical transport for confirmed COVID-19 cases

- Appropriate medical transport for the patient (and their parent/carer) to hospital will be dealt with by medical transport teams.
- The community paediatrician should advise parents to wait for this service and not to seek secondary care themselves, for example by going to the hospital via car or public transport.

The role of community care in supporting the NHS' response to COVID-19 (England only)

Priorities for community health services

On 19 March 2020, NHSE/I published COVID-19 Prioritisation within community health services. It states that the current priorities for providers of community services during this pandemic are to:

- Support home discharge of patients from acute and community beds, as mandated in the Hospital Discharge Service Requirements (see below).
- By default, use digital technology wherever possible.
- Prioritise support for high-risk individuals who will be advised to self-isolate for 12 weeks.
- Apply the principle of mutual aid within health and social care partners, as decided through your local resilience forum.

The Prioritisation document notes which children and young people (CYP) community services should stop during the COVID-19 outbreak, partially stop and continue.

Community health services and Hospital Discharge Service Requirements

On 19 March 2020, the NHS published COVID-19 Hospital Discharge Service Requirements. These Service Requirements are designed to create more capacity within acute and community hospitals. They must be adhered to by all NHS Trusts, community interest companies and private care providers of acute, community beds and community health services and social care staff in England.

Children are only referred to in the document in terms of children's hospices being included in the Capacity Tracker tool.

In summary, community health services:

- Will lead on 'discharge to assess' pathways 1-3 (see model in the document, section 1.8).
- Will need to set up a single coordinator in each acute centre, to ensure accountability.
- Must work with social care colleagues, the care sector and voluntary sector to ensure that the pathways function as intended.

The actions for providers of community health services are as follows (section 4):

- Identify an Executive Lead to oversee the implementation and delivery of the Discharge to Assess model.
- Release staff from their current roles to coordinate and manage the discharge arrangements.
- Have an easily accessible single point of contact which will always accept assessments from staff in the hospital and source the care requested.
- Deliver enhanced occupation therapy and physiotherapy seven days a week.
- Use multi-disciplinary teams on the day they are home from hospital, to assess and arrange packages of support for patients on specific discharge pathways.
- Coordinate the care for patients discharged on pathways 1-3.
- Ensure provision of equipment to support discharge.
- Ensure patients on all three pathways are tracked and followed up to assess for long term needs at the end of the period of recovery.
- Maintain the flow of patients from community beds.
- For patients identified being in the last days or weeks of their life, Community Palliative Care teams will be responsible for coordinating and facilitating rapid discharge to home or hospice. This supersedes the current fast track end of life process.

Additional resources and support for implementation are available in the Service Requirements document (section 12). This includes NHSE webinars and supporting guidance.

Working in neonatal settings

This section has been produced with the British Association of Perinatal Medicine (BAPM).

Clinical presentation: Pregnant women, unborn children and neonates

There are a limited number of cases reported to date where pregnant women have

contracted COVID-19, all in the late third trimester and nearly all delivered ?7 (less than or equal to) days after symptom onset; most will only experience mild or moderate cold/flu like symptoms. At present, expert opinion is that the fetus is unlikely to be exposed during pregnancy. Only one case of possible vertical transmission caused by intrauterine infection has been identified as at 13 March 2020.

Transmission of the virus is therefore most likely to occur post birth. Guidance on caring for pregnant women with suspected or confirmed COVID-19 and their babies is published. Guidance may change as knowledge evolves; you are strongly encouraged to conduct a risk/benefit discussion with neonatologists and families to individualise care in babies that may be more susceptible to COVID-19 infection.

Maternal admissions

- Women with proven or suspected COVID-19 who require admission for midwifery care should be admitted to a dedicated room in the labour suite or directly to an obstetric theatre if immediate emergency management is required.
- The neonatal team should be informed as soon as possible of this admission and the resuscitaire and room equipment should be checked before the mother enters the room.
- Intubation of the mother for a GA Caesarean section is a significant aerosol generating procedure (AGP); the use of Entonox and maternal pushing during labour is not considered an AGP.
- Intubation of the newborn and positive pressure ventilation are both AGPs; however, there is no evidence of vertical transmission and the risk to health care workers performing these manoeuvres on newborn infants is thought to be low.
- Commonly used equipment for neonatal resuscitation and stabilisation should be readily available (eg located in disposable grab bags) to avoid taking the full resuscitation trolley into the room unless required.
- A dedicated pulse oximeter should be located on the resuscitaire to avoid moving equipment in and out of the delivery room unnecessarily.
- The appropriate Personal Protective Equipment (PPE) determined locally must be worn by any person entering the room. Follow local guidelines regarding donning and doffing PPE.
- In order to minimise staff exposure, only essential staff should be present in the delivery room/theatre.
- All women with confirmed or suspected COVID-19 should have continuous cardiotocography monitoring in labour.
- Deferred cord clamping is recommended provided there are no other contraindications.
- The baby can dried as normal, while the cord is still intact. Or in the case of a pre term baby, standard thermoregulatory measures including the use of a plastic bag.
- Breastfeeding and formula feeding by the mother is permissible, but mothers should be advised regarding hand washing and wearing a mask is advised while handling the baby.

Neonatal management in labour suite

- A designated member of the neonatal team should be assigned to attend suspected/confirmed COVID-19 deliveries. It is important that the most senior person likely to be required attends in the first instance, to minimise staff exposure. Local units

should make their own arrangements for designating staff, but senior involvement is expected.
- PPE should be donned in an adjacent room and the team member should wait outside the delivery room, ready to be called in should the baby require any intervention(s).
- If it is anticipated that the baby will require respiratory support, appropriately skilled neonatal team members should be present at delivery and wearing PPE.
- Neonatal resuscitation/stabilisation should proceed as per current NLS / ARNI guidance.
- If additional equipment is required, this can be passed to the team by a 'clean' staff member outside the room.
- Guidance is available on safe transfers between departments, but neonates should be transferred in a closed incubator. Where possible, all procedures and investigations should be carried out in the single room with a minimal number of staff present.
- There is no evidence to suggest that steroids for fetal lung maturation cause any harm in the context of COVID-19. Steroids should therefore be given to mothers anticipating preterm delivery where indicated and urgent delivery should not be delayed for their administration (as normal practice).
- MgSO4 should be given for neuroprotection of infants < 30 weeks' gestation as per current guidance.

Baby born in good condition

- Well babies not requiring medical intervention should remain with their mother in their designated room. See RCOG guidance for more detail.
- Current guidance is that well babies of COVID-19 positive mothers should only be tested if unwell.
- If the mother needs assistance in caring for her baby this would usually be provided by the attending midwife – when a mother is acutely unwell, an alternative non-quarantined carer/relative should be identified to provide care for the baby at home or in a designated room not in the neonatal unit (NNU). In the latter case the baby should be isolated from their mother.
- Where appropriate, early discharge of the baby with a parent or carer, including safety netting advice should be facilitated. This will require close liaison with community midwifery services.
- PPE should continue to be used according to local guidance.

Baby requiring additional care

- Babies requiring additional care (eg intravenous antibiotics) should be assessed in the labour ward and a decision made as to whether additional care can safely be provided at the mother's bedside. Avoid NNU admission if at all possible and safe.
- Babies requiring admission to the NNU should be assessed in a designated area in the NNU by an appropriately skilled neonatal team member wearing PPE.

Transfer to NNU

- Public Health England has provided guidance on transfers to other departments.

Management on NNU

- All staff must adhere to the locally recommended PPE guidelines before entering the isolation room.
- Clinical investigations should be minimised whilst maintaining standards of care. Senior input is recommended when deferring routine investigations and in prioritisation of work. Consider ways to reduce unnecessary investigations – eg use of (point of care testing) POCT.
- Intubation/LISA are aerosol generating procedures (AGP), although the risk of transmission soon after birth is thought to be low, and it is recommended that staff follow their local guidance regarding use of appropriate PPE, even in an emergency. In-line suction with endotracheal tubes should be used, where possible.
- Where possible, use of a video-laryngoscope should be considered for intubation, which might facilitate keeping the baby within the incubator. By reducing proximity to the baby's airway this may help to reduce exposure to the virus. Intubation should only be undertaken by staff with appropriate competencies.
- CPAP and high flow therapies are also associated with aerolisation, and staff caring for infants receiving these therapies must also adhere to their local guidance regarding use of appropriate PPE.
- In the absence of evidence, it is reasonable to treat the baby's respiratory illness in the same way as if they were not potentially exposed to COVID-19. The evidence in favour of early intubation is limited to adults and older children.
- All babies requiring respiratory support should be nursed in an incubator.
- All equipment coming out of the isolation room should be cleaned as per Trust COVID-19 cleaning policy
- A register must be kept of all staff entering the room.

Transport

- Limit transfers to a minimum.
- Level 2 units to keep majority of babies as per network escalation policies.
- Neonatal Transport Group are considering guidance.
- Exposure to COVID-19 in itself is not a reason to transfer.

Testing and isolation of infants – general principles

- Performing nasal swabs on asymptomatic infants may result in false negatives, and the optimal timing of testing is unclear.
- Asymptomatic patients, including infants, even if positive, are unlikely to transmit the virus, providing everyone adheres to basic hygiene measures.
- Viral RNA may be detectable in stools for several weeks, but this does not mean that the faecal material is necessarily infective; providing carers adhere to basic hygiene measures, the risk is not thought to be significant.
- Symptomatic infants could still pose a significant risk to health care workers when they undertake an AGP (eg intubation) and therefore health care staff must adhere to the current guidance relating to PPE for AGPs.
- The ability to test and the ability to isolate potentially infected infants are likely to be limited. The described approach is therefore risk-based, realising that many risks are inferred, rather than known. Recommendations may change as testing capacity increases and we have more precision around estimating risks of transmission.

Testing and isolation of well infants

- There is currently no clinical indication to test any well infant born to a COVID-19 positive mother.
- Well term/near-term infants to stay with mother, if at all possible.
- When infant and mother are ready for discharge, they should be provided with written advice regarding what to look out for, in terms of respiratory symptoms, lethargy or poor feeding, and from whom to seek further advice should they have concerns. They should be advised to self-isolate for 14 days.

Testing and isolation of NICU admissions

- Infants of COVID-19 infected or suspected mothers should not be routinely tested on admission, but they should be isolated if their symptoms fit the case definition. Note: case definition: newborn infants may not show all the features of an influenza-like illness, particularly a fever, so clinicians should have a high index of suspicion in all infants admitted to NICU and monitor for signs of respiratory illness during the admission.
- Infants admitted for reasons other than respiratory distress do not need isolating, but they must be monitored for signs of COVID-19 during their admission (see case definition and note, above). If they develop signs, they should then be isolated and tested.
- Infants meeting the case definition should be tested. If they meet the definition only by virtue of requiring respiratory support for an anticipated non-COVID-19 respiratory pathology (eg RDS (respiratory distress syndrome)), they should be tested after 72 hours of age – to avoid potential early false negative results. We suggest testing again on day 5 before declaring non-infected.
- If there is clinical concern that an infant who meets the case definition is not following a typical clinical course for an anticipated non-COVID-19 respiratory pathology, they should be tested that day.
- Remember to also investigate and treat for non-COVID-19 pathologies (eg sepsis, etc.).
- Infants awaiting test results and <7 days of age can be cohorted in the same isolation room, provided they remain in incubators, as airborne transmission is not currently thought to be a major mechanism of transmission in this clinical context.

When to move out of isolation on NICU

- Infants can come out of isolation despite continuing need for respiratory support, providing the tests on day 3 and 5 are negative, and the infant is following the projected clinical course (eg expected for RDS, etc.).

- Continue to isolate known COVID-19 positive infants until their symptoms resolve and they no longer need respiratory support; they can then be allowed out of isolation but must remain in an incubator and monitored for respiratory signs and symptoms for a further 14 days. During this period, they should be barrier nursed (gloves and aprons). If they subsequently require respiratory support, they should return into isolation and be

retested.

- Preterm infants can require lengthy respiratory support by virtue of their prematurity. If they are also COVID-19 positive, it would be permissible to move them out of isolation despite needing continued respiratory support, providing they are stable, with a clinical time course consistent with a non-COVID-19 respiratory pathology (eg RDS). The reliability of repeatedly testing for COVID-19 has not been established. If they are moved out of isolation, they must remain in an incubator whilst on respiratory support. During this period, they should be barrier nursed (gloves and aprons). If they deteriorate and require increasing levels of respiratory support, they should return into isolation and be retested.

Breastfeeding

- Breastfeeding will be encouraged through supporting mothers who have been separated from their baby to express milk (EBM). Mothers should have a designated breast pump for exclusive use and local infection control policies should be consulted in the cleansing of this.
- It is not yet clear whether COVID-19 can be transferred via breast milk.
- Other coronaviruses are destroyed by pasteurisation but there is no evidence to inform whether COVID-19 (if present) would be similarly destroyed.
- Further information is available from in the European Milk Bank Association position statement.

Newborn screening

- Newborn Infant Physical Examination (NIPE) – where possible this should be completed in hospital, prior to discharge.
- Newborn Blood Spot (NBS) screening should take place as usual
- Audiology screening should continue in maternity units and on the NNU.
- The ability to perform investigations and tests once the infant has left hospital will be restricted - eg newborn hearing screening in the community, bringing infants back for echocardiograms, etc. Thus, where possible, investigations and tests should be performed before discharge from the maternity or neonatal unit. Maternity units should aim to maintain sufficient staffing in order to perform the necessary screening before discharge.

Managing neonatal unit capacity

- It is anticipated that NNU capacity may become problematic either due to cot capacity or staff availability. Individual units should have agreed staffing plans when optimal staffing plans cannot be achieved.
- Cohorting of confirmed positive cases may be necessary and should follow local guidance.

Parents and visitors to NNU

- COVID-19 positive parents should not visit their baby on the NNU, until they are asymptomatic.

- Partners of COVID-19 positive mothers must still adhere to the current advice from PHE regarding self-isolation, and the hospital policy regarding visiting the maternity wards and NNU, except under exceptional circumstances, to be discussed with local infection control
- No other visitors (including siblings) should be allowed to visit infants in NNUs, except under exceptional circumstances, to be discussed with local infection control. NHS England has produced guidance on visitors to inpatients, outpatients and diagnostics.
- Visits from other NHS staff and personnel to the NNU should be kept to a minimum – consider opportunities for remote meetings.
- Units should seek to mitigate loss of family contact with video techniques.

Neonatal discharge and follow up

- All measures aimed at early discharge from the NNU should be upscaled and visits by community liaison staff to the NNU kept to a minimum.
- Consider telephone / video consultations for neonatal follow up, where possible, to avoid vulnerable infants with chronic lung disease, etc., attending clinics.
- Advice should be provided to parents of those infants at increased risk (eg immunocompromised, chronic lung disease, cardiac disease) about reducing risk of infection (reduce social contact, handwashing) and interventions aimed at preventing other diseases (eg immunisations) should be optimised.
- Parents who telephone NNUs for help should receive experienced advice, with the aim of minimising direct contact with either neonatal or paediatric services.

Staff wellbeing

- There is no need for staff to self-isolate after looking after a suspected or confirmed case of COVID-19 if correct PPE precautions have been taken.
- Any staff concerns regarding contact with a possible case should be discussed with local occupational health departments.
- If/when redeployment of staff is necessary, this must be agreed at senior level and staff appropriately supervised and supported. See supportive doctors guidance and advice from HEE.

Working in acute paediatrics and emergency departments

This section has been produced with the Association of Paediatric Emergency Medicine (APEM) and the British Paediatric Allergy, Immunity and Infection Group (BPAIIG).

Association of Paediatric Emergency Medicine

Preparations for the COVID-19 pandemic

- PHE guidance on preparedness emphasises that staff should be familiar with local operational procedures and appropriately trained. For example, staff should be aware of where possible cases will be isolated and who to contact in their organisation to discuss possible cases.
- Staff involved in assessing or caring for confirmed cases of COVID-19 should be trained in using PPE and fit testing should be undertaken before this equipment is used. All staff in high risk areas such as emergency departments and urgent care, and other areas as agreed locally must be trained in the use of PPE.
- Staff caring for children with confirmed COVID-19 or undertaking aerosol generating procedures (AGP) should be trained in the safe donning and removal of PPE.
- Health Protection Scotland has provided advice for management of COVID-19 cases in inpatient settings in Scotland.
- NHS England has published guidance to assist managers and estates teams in the rapid conversion of existing wards into facilities for COVID-19 patients, including bed layouts, infrastructure prompts, and oxygen advice.
- NHS charging guidance for COVID-19 states that there can be no charge made to an overseas visitor for diagnosis or treatment of COVID-19. Further details are available from NHS England and NHS Scotland.

Good practice for paediatrics

NHS England has produced a guide for management of paediatric patients that also describes the role that paediatric services will play during the pandemic. This guidance lists the following principles for running paediatric services during this time:

- Follow Public Health England guidance.
- Keep children out of the healthcare system, unless essential.
- Use telemedicine and other non-direct care, when appropriate.
- Plan for stopping elective procedures and treatments that may consume critical care and ward resources.
- Plan for increasing capacity for provision of oxygen and ventilators.
- Plan for admitting young adults up to 25 years of age and make contingency plans for admitting older adults.
- Comply with infection-control measures and ensure all staff have access to, and are trained in, appropriate personal protection equipment (PPE). Training should include simulation.
- Design shifts that are practical and sustainable for staff wearing full PPE.
- Use visual alerts to inform staff of symptoms on registration and reminders about respiratory hygiene and cough etiquette.
- Collaborate with hospitals and health systems on local response and to prepare for surges.
- Coordinate with regional and national networks of care to ensure that resources are used equitably, consistently and effectively.

Consider the following:

- How will you deal with calls from concerned parents of children with and without risk?
- Where are your quarantine areas and isolation areas for walk-in patients? Are they child-friendly as well as suitable for decontamination?
- Is your designated COVID-19 area for isolation and treatment at presentation of unwell suspected COVID-19 patients suitable for children's care?
- How will you manage family members of suspected cases in the Emergency Department (ED) area during this time? See isolation plans for parent-child combinations

You should identify:

- Your lead clinician / lead nurse to lead on policies and procedures for COVID-19 (this may be a paediatrician in ED or ED link paediatrician
- Your paediatric cardiac arrest team and management of infectious risk team
- Your paediatric ward isolation cubicles
- Your ward cohorting areas, if needed
- Your hospital's negative pressure cubicles, and prepare for use for children
- Suitable areas for donning and doffing PPE and its disposal in paediatric areas
- Staff to maintain isolation rooms and ensure quarantine areas remain clean, stocked and ready for use

And ensure that:

- If there is no ensuite toilet in the isolation room, a dedicated commode (which should be cleaned as per local cleaning schedule) should be used with arrangement in place for the safe removal of the bedpan to an appropriate disposal point
- In emergency departments, barrier signs and infection control precaution signs are in place
- Access to isolation cubicles is only via one entrance

And:

- Establish a process for communicating positive results from swabs taken in the quarantine area. Including repeat risk assessment by telephone triage if positive
- Ensure families and patients have advice on self-isolation (stay at home)
- Have your suite of patient information ready specifically written for parents and children, including written information for admitted patients and posters in waiting areas

Infection control

- PHE has provided extensive guidance on infection prevention and control for inpatient settings that should be used alongside local operational policies. Note this guidance is issued jointly by public health agencies across the UK.
- The guidance covers:
    - isolation
    - staff considerations
    - visitors

    - PPE and hand hygiene
    - decontamination
    - mobile equipment
    - critical care, and
    - Transfers.
- 23 March – new guidance has been produced by PHE on use of PPE for non-aerosol generating procedures.
- NHS England has produced advice on supply and use of PPE, including FAQs on using FFP 3 Respiratory Protective Equipment (RPE)
- Guidance on the infection control implications of tonsillar examination, produced by the RCPCH and BPAIIG, is available to download at the bottom of the page. The guidance gives clinical recommendations to minimise the risk of transmission from asymptomatic children to ear, nose and throat (ENT) healthcare professionals.

Case management

- The Government has produced stay at home guidance.
- Children will be told to remain at home unless the child unwell and requires urgent hospital review.
- There is current advice for the public on NHS111 testing.

Managing suspected cases - initial investigation and management

- PHE guidance on the investigation and initial management of potential cases defines a possible COVID-19 case as an individual that requires admission to hospital and has: either clinical or radiological evidence of pneumonia; or acute respiratory distress syndrome; or flu-like illness regardless of epidemiological links.
- PHE has produced guidance on steps to take when a patient suspected COVID-19 presents to ED
- PHE have published guidance on the action required when a case was not diagnosed on admission

Presentation of possible COVID-19 at ED

- If a child with possible COVID-19 presents directly to ED, they should be redirected to your COVID-19 quarantine area. See PHE guidance on managing infection control risks in ED.
- If the child has severe respiratory compromise, they will need to be transferred immediately to your designated isolation cubicle for management. In most hospitals this will be in your ED areas, other solutions may exist.
- Any cases phoned in by Ambulance services as “sick” and likely to require resuscitation will be managed in your designated isolation room. The Resuscitation Council have published guidance.
- Complete your COVID screening documentation as per guidance.
- A record should be kept of all staff in contact with a possible case, and this record should be accessible to occupational health should the need arise.
- Healthcare staff should wear PPE as per PHE guidance
- PPE should be disposed of in line with infection control procedures

Making the diagnosis

- Follow PHE's guidance on sample requirements for laboratory investigations.
- Follow HPS guidance for Scotland.
- The sample sets required for diagnostic testing are listed here.

Parents/carers

- Ideally only one parent / carer should accompany child to isolation cubicle. Decide who that will be and manage other members appropriately to reduce risk of infection and request they self isolate.
- NHS England has produced guidance on visitors to inpatients, outpatients and diagnostics.
- Follow isolation plans for admitted patients - see isolation plans for parent-child combinations
- The attending parent must wear PPE equipment defined by PHE at all times within the hospital buildings and grounds

Internal transfers

- It is not advisable to move suspected patients and their families internally until an infectious risk assessment is performed. This covers absolute risk of family members being infected, risk to family members themselves of being secondarily infected by case, risk of family members infecting others within the hospital (ie not wearing PPE/ poor compliance to infection risk reduction measures), including management of asymptomatic parent / carer who themselves be a potential infection risk when entering or exiting the unit. The risk assessment needs to be standardised and recorded.

Note: guidance is available from NHS England on clinical management of emergency department patients during the pandemic. As at 18 March, this does not discuss paediatric emergency care specifically but outlines different categories of patients and clinical presentations not requiring admission.

Further guidance and advice can be found on the Royal College of Emergency Medicine website.

Management of admitted cases

- Many people with confirmed COVID-19 may be managed at home as per PHE guidance.
- Follow isolation plans for admitted patients - see isolation plans for parent-child combinations
- Visitors should be restricted to essential visitors only, such as parents of a paediatric patient or an affected patient's main carer. It is recommended that only one parent is in attendance.
- NHS England has produced guidance on visitors to inpatients.
- NICE is producing rapid guidelines and evidence reviews around COVID-19.

Children admitted to hospital: good practice principles

(with thanks to Alder Hey Hospital)

- Reassure: Most children will have much milder illness than is seen in adults. Reassure children and parents, as they are likely to be concerned from information (and misinformation) in mainstream and social media. They might know an adult with the infection who may was treated in a different way or may have been severely unwell.
- Involve parents: The way healthcare professionals communicate with families is important. Reinforce that active monitoring and supportive therapy is the best strategy. When parents feel disempowered they may become anxious and feel that their child is not being managed properly.
- Be vigilant: some children with COVID-19 will develop complications and comorbidities. Be aware of local sepsis guidelines, acute kidney injury guidelines, and respiratory failure guidelines. You must adhere to guidance around infection control. Be aware that these may change over time.
- Teamwork: the whole multidisciplinary team must work together to ensure the best outcome for the child. Parents and children want to see healthcare professionals adhere to the same guiding principles of practice. Deviation is undermining to other professionals, and parents and children will pick up on differences in practice (however subtle). Written and verbal communication between professionals is crucial to prevent this.
- Minimising spread of the virus in hospital is crucial. Be aware of local and national recommendations for doing this.

Alder Hey Children's Hospital and the British Paediatric Respiratory Society have developed guidance for the clinical management of children admitted to hospital with suspected COVID-19, for general paediatrics, available to download at the bottom of this page. It outlines key principles for the medical management of children admitted to hospital with COVID-19, including:

- Radiology
- Fluids
- Antipyretics
- Respiratory support
- Antibiotics
- Antivirals
- Bronchodilators and treatment of children with asthma attacks
- Systemic steroids
- Liver dysfunction
- Hydroxychloroquine

This guidance is based on literature review of published and unpublished data, expert opinion, and national/international guidelines, and is subject to updates as evidence becomes available.

Discharging patients from hospital

- NHS England has provided guidance on discharge of patients with suspected COVID-

19 that covers: discharge criteria; stay at home guidance; and discharge advice to patients.
- For other inpatients, on 19 March 2020, NHS England issued guidance and requirements on discharge arrangements, with the aim of freeing up inpatient capacity. The default pathway will be 'discharge home today'.
    - The COVID-19 Hospital Discharge Service Requirements outline all the details.
    - Acute providers need to rapidly update their processes and ways of working to deliver a discharge-to-assess model.
    - There should be at least twice daily review of all patients in acute beds to agree who is not required to be in hospital, and will therefore be discharged.
    - NHSE has published criteria to aid decision making (see Annex B on p.32 of this PDF).
    - Based on these criteria, acute and community hospitals must discharge all patients as soon as they are clinically safe to do so. Transfer from the ward should happen within one hour of that decision being made to a designated discharge area. Discharge from hospital should happen as soon after that as possible, normally within two hours.
- Health Protection Scotland have produced guidance on discharge arrangements in Scotland.

Guidance for Paediatric Intensive Care Services (PICS)

The Paediatric Intensive Care Society (PICS) is working with the RCPCH, NHS England, the HCID network and other agencies to ensure that members are provided up to date and relevant guidance to support management of critically ill children with COVID-19 infection. The PICS guidance includes:

- Referral and transport of critically ill children with suspected and confirmed COVID-19 infection.
- Flow diagram for the management of critically ill children with suspected and confirmed COVID-19 infection.
- PICS and ICS joint position statement on planning for the pandemic.
- Management of high risk aerosol-generating procedures.
- Checklist for intubation.
- Transport of children with suspected and confirmed COVID-19

NHS England has produced guidance on management of paediatric patients during the pandemic. This includes actions for team leadership, emergency paediatric surgery and service reconfiguration. The guidance notes that there may be a role for PICU in admitting young adults under 25 years of age.

The Faculty of Intensive Care Medicine, Intensive Care Society, Association of Anaesthetists and Royal College of Anaesthetists have developed a website to provide information, guidance and resources on understanding of and management of COVID-19 for the UK intensive care and anaesthetic community.

Isolation plans for parent-child combinations

Single parent and child meeting COVID-19 case definition - isolation plan whilst waiting for virology results

Child	Parent	Management
Well*	Well*	Child – home isolation Parent – home isolation
Well*	Level 1	Child – home isolation – support from social care Parent – adult ward **
Well*	Level 2/3	Child – home isolation – support from social care. Parent – adult ward ** Escalate to HDU/ITU as per usual pathway
Level 1	Well*	Child – paediatric cubicle ** Parent – with child.
Level 1	Level 1	Child – paediatric cubicle ** Parent – adult ward ** Note this may alter over time – local decisions to collocate parent and child may be necessary
Level 1	Level 2/3	Child – paediatric cubicle ** If necessary need to plan locally for a child without available carer Parent - adult ward ** Escalate to HDU/ITU as per usual pathway
Level 2/3	Well*	Child – paeds ward cubicle ** Transfer to PICU as per usual pathway if deteriorates Parent – home isolation / PICU***
Level 2/3	Level 1	Child - paeds ward cubicle ** Transfer to PICU as per usual pathway if deteriorates Parent – adult ward **

Child	Parent	Management
Level 2/3	Level 2/3	Child - paeds ward cubicle ** Transfer to PICU as per usual pathway if deteriorates Parent – adult ward ** Escalate to HDU/ITU as per usual pathway

* deemed clinically stable and suitable to be managed as an outpatient

** ideally negative pressure, could use cubicle with lobby our cubicle without lobby only as a last resort

*** parents who are admitted with their child to PICU are then quarantined in isolation with their child and cannot come and go freely

Paediatric scenarios

This section gives guidance on care and management for different groups of children as inpatients. It also advises on specific groups of children - those with febrile neutropenia, and those at increased risk of COVID-19.

Suspected child – mildly-moderately symptomatic requiring admission (level 0–1)

Level 0 is a standard ward paediatric patient.

Level 1 refers to level 1 paediatric critical care.

- Children with mild to moderate symptoms and are admitted for observation/feeding support. This advice may change for those with mild symptoms during a pandemic stage.
- Possible interventions:
    - Nasogastric feeding
    - Supplemental oxygen to maintain saturations over local criteria (90– 92%)
    - IV fluids
    - Humidified High flow nasal cannulae oxygen (HHFNCO) – note this is a high risk procedure only if absolutely necessary and appropriate infection control measures in place see PHE guidance PICS revised guidance
    - Monitoring as required by level of care.
- These children should be nursed in a single side room. A parent/carer who is admitted with the child must stay in the room at all times until discharge or confirmed negative screening test. Both child and parent should wear surgical mask for transfer from ED to the designated room and if leaving for any reason.
- Staff should minimise time in the room as far as possible.
- The process must be explained to families requesting their compliance to infection control procedures. Ways of doing this but minimising contact need to be identified.
- Aerosol generating procedures (HHFNCO, suctioning, performing NPAs) should be avoided unless absolutely essential. NPAs are also aerosol generating procedures but may be clinically helpful.
    - Where AGPs are medically necessary, they should be undertaken in a negative-

pressure room, if available, or in a single room with the door closed.

- Waste should be managed appropriately. If there is no en-suite toilet in the side room, a dedicated commode (which should be cleaned as per local cleaning schedule) should be used with arrangements in place for the safe removal of the bedpan to an appropriate disposal point.
- Room will need chlorine clean following discharge if screening results pending or confirmed positive.

Suspected child - requiring moderate intervention (level 2 critical care eg CPAP)

- Children who require respiratory support should be discussed with PICU. If they are undergoing high risk procedures (suction, Optiflow, CPAP, etc.) they should be managed in a single side room and should take priority over other inpatients.
- All attending staff should wear appropriate PPE.
- If subsequently confirmed to have COVID-19, the patient may warrant transfer to an appropriate paediatric HCID centre if there are concerns regarding clinical deterioration; these decisions will be made on a case by case basis depending on capacity within the designated paediatric HCID centres.
- The parent/carer who is admitted with the child must stay in the room at all times until discharge or confirmed negative screening test.
- Room will need chlorine clean following discharge if screening results pending or confirmed positive.

Suspected child – requiring PICU level 3 care

- The Paediatric Intensive Care Society (PICS) have put together detailed practical guidance specific to the management of critically ill children, including flow diagrams for suspected and confirmed cases of COVID-19 infection
- Details regarding the levels of paediatric critical care can be found here.
- Level 3 care includes intubation and ongoing ventilation. Management and referral pathways for level 2 and 3 patients are described in PICs guidance, along with intubation guidance if a child needs intubating in a DGH due to respiratory failure.
- Children requiring level 3 care should be referred to PICU as per normal protocol, highlighting on referral that there is a suspicion of COVID-19.
- All staff involved in their care prior to transfer to intensive care should wear appropriate PPE.
- If the child is confirmed to have COVID-19, assuming that we are still in the containment phase, they should ideally be transferred to an HCID PICU centre.
- Following transfer, the room should be chlorine cleaned.

Special cases: children with febrile neutropenia and suspected COVID-19

- Children should initially be assessed and tested in ED not the wards.
- Prompt administration of broad-spectrum antibiotics for the management of febrile neutropenia is essential.
- In the Oncology wards may wish to designate specific cubicles for patients with suspected COVID-19.
- All infectious disease precautions must be followed as for other COVID-19 patients as well as specific cautions for that patient group otherwise the child should be admitted

into a cubicle within the suspected coronavirus area.

Children at increased risk of COVID-19

On 16 March Public Health England published advice for groups who are at an increased risk of severe coronavirus disease (COVID-19) to follow advice on social distancing measures. These include significantly limiting face to face contact with friends and family for several weeks. The groups at increased risk included in this advice are pregnant women, those aged over 70, and those with a list of specific comorbidities.

On 21 March PHE published advice on shielding and protecting extremely vulnerable people from COVID-19. Extremely vulnerable people are strongly advised to stay at home at all times and avoid any face-to-face contact, for at least 12 weeks.

How to best to apply this to children (including infants and young people) in the UK is complex. Although in adults these comorbidities are associated with increased mortality risk, the evidence for this among children is very limited, and the disease appears to take a milder form in younger age groups. Applying stringent social distancing to all children with this list of comorbidities may also be associated with potential harms and at times may not be possible. PHE guidance has been published on managing self-isolation with children.

All children who fall into the vulnerable group should follow social distancing guidance, however there are certain children identified in the PHE guidance who are at a significantly increased risk from COVID-19 and should take the most stringent measures to shield themselves to reduce their risk. Our current advice is for all children with the following comorbidities to follow stringent shielding measures outlined by Public Health England:

1. Long term respiratory conditions, including:

- Chronic lung disease of prematurity with oxygen dependency
- Cystic fibrosis with significant respiratory problems
- Childhood interstitial lung disease
- Severe asthma (see below for Asthma UK's guidance on children with severe asthma)
- Respiratory complications of neurodisability

2. Immunocompromise (disease or treatment), including:

- Treatment for malignancy
- Congenital immunodeficiency
- Immunosuppressive medication including long term (>28 consecutive days) of daily oral or IV steroids (not alternate day low dose steroid or hydrocortisone maintenance)
- Post-transplant patients (solid organ or stem cell)
- Asplenia (functional or surgical)

3. Haemodynamically significant and/or cyanotic heart disease

4. Chronic Kidney Disease stages 4, 5 or on dialysis

Asthma UK have developed guidance for children with severe asthma.

There is no evidence that children and young people with type 1 diabetes are at increased

risk from COVID-19 above the increased risk of infection inherent in poor control of diabetes. The International Society of Paediatric & Adolescent Diabetes (ISPAD) has advised that colleagues in Italy and the Middle East report that children and adolescents with diabetes have not been adversely affected by COVID-19.

The evidence around which groups are at increased risk to COVID-19 is rapidly evolving. As further evidence emerges, our advice around which children and young people should follow more stringent social isolation measures is likely to change. We plan to update these recommendations with more detailed criteria as new data become available.

Please refer to the UK CF Medical Association statement on coronavirus.

Healthcare arrangements for people who are shielding

In England, a letter to trusts regarding patients at increased risk was issued by NHS England on 21 March. This provides some further information on matters such as

- ongoing care arrangements
- support with medical supplies
- and when and how to seek urgent medical attention

PHE also issued advice for patients at increased risk on their GP and hospital appointments, to:

- access medical assistance remotely, wherever possible.
- talk to their GP or specialist if there is a scheduled hospital or other medical appointment during this 12-week shielding period, to ensure that they continue to receive the care they need and determine which of these are absolutely essential
- contact their hospital or clinic to confirm appointments, as they may be postponed or cancelled.

In Wales, the Government will be writing to all GPs and people at increased risk with details of shielding arrangements. In Scotland, GPs and local resilience hubs will provide support for people who are shielding. We will update with further information as it becomes available.

Downloads
Guidance for the clinical management of children admitted to hospital with suspected COVID-19 (BPRS)344.8 KB
COVID-19 child friendly poster472.64 KB
Tonsillar examination - infection control implications - asymptomatically infected children (RCPCH and BPAIIG)186.57 KB