



Supporting children with tracheostomies back to school during the COVID-19 pandemic

Background

The COVID-19 pandemic has resulted in the withdrawal of many children from school for a period of several months. As children return to school in the coming weeks it is important that, where possible, children with tracheostomies perceived as vulnerable are not disadvantaged by unnecessary barriers to accessing education. The purpose of this document is to support children, families, healthcare and education professionals to make this transition as safe as possible for as many as possible.

The Department of Education has published guidance on return to school at this stage during the pandemic¹. In terms of children with tracheostomies and those requiring long-term ventilation (LTV), some of this guidance will be challenging to implement. This has led to concerns expressed by parents, carers and healthcare professionals that children could be subject to discrimination on the basis of their health care needs and their access to education unfairly restricted.

The novel nature of the SARS-CoV-2 virus means that the evidence base on which practice is based is constantly evolving. It is therefore necessary to adopt a pragmatic approach based on the evidence available.

Children with tracheostomies are no longer required to shield due to the falling community prevalence rates from 1st August 2020.² This includes the minority of children previously risk-assessed and considered “extremely vulnerable” as per Public Health England (PHE) guidance.

Prevalence of COVID-19 amongst children

In August 2020, an estimated 0.09% of the population are infected with the coronavirus that causes COVID-19 disease (calculated 3 July 2020). In children, the prevalence is lower than this. The Royal College of Paediatrics and Child Health (RCPCH) advocates assessing level of risk for performing elective surgery on accurate community prevalence rates using a green (<0.5%) amber 0.5% - 2%) and (red >2%) system. Currently most regions in England are green.³

There is a body of evidence which suggests that children may not only acquire the disease less often than adults but also may have a more limited role in its transmission.⁴ There is no evidence that children with tracheostomies are any more likely to acquire or transmit the disease than children without a tracheostomy.

Aerosol-generating procedures (AGPs)

The coronavirus that causes COVID-19 disease can be spread by:

- Direct contact with an infectious person or their environment
- Droplet spread
- Aerosol spread

An AGP is a procedure that can result in the release of potentially highly infectious airborne particles (aerosols) from the respiratory tract. The PHE list of AGP has changed over time but currently still includes tracheostomy cares, specifically insertion or removal of a tracheostomy and suctioning.⁵

However, it is important to realise that this will only be an issue in those children with a suspected or confirmed infection. By definition, these children attending school will be asymptomatic and the aerosol generated in carrying out tracheostomy cares would be no different from a child without a tracheostomy coughing or spitting.

Unpublished data and clinical experience suggest that use of devices such as the *TrachPhone HME* can significantly reduce the amount of aerosol generated during suctioning. We suggest that aerosol PPE should not be required for tracheostomy cares such as suctioning in the setting of a well, asymptomatic child who is able to attend school. Droplet precaution PPE is recommended where possible. This is supported by PHE guidance on AGP in low risk patients.⁶ If suctioning is required if there is a separate space available then this can be used, but on current data this is certainly **not essential**. There is no evidence to suggest that suctioning in the classroom poses additional infection risks to staff or other children.

Given that children with tracheostomies are no longer required to shield, they are currently using public spaces with no special measures in place. It is therefore not unreasonable to expect that children could undergo tracheostomy suction in public places with no special measures taken.

The re-opening of schools in September is approaching and it is vital that children with tracheostomies are given the same opportunity to return as all other children receive. Unfortunately, the constantly evolving community prevalence and guidance related to COVID-19 has meant that this guidance has only been produced a few days before many schools return. We hope that it is useful for patients, families and staff in planning and preparing for the return to school of children with tracheostomies.

It is imperative that these children are not subject to discrimination due to their health needs. There is no evidence to date that the risk of children with a tracheostomy acquiring or transmitting COVID-19 is any different to any other child.

Aims of this document

1. To ensure access to education for children with tracheostomies wherever possible.
2. To support staff in education and carers of children with tracheostomies.

Recommendations (based on expert consensus opinion)

1. We recommend a 'zero tolerance' attitude to discrimination toward children with tracheostomies and their families and/or carers is adopted.
2. We recommend that PHE hygiene and social distancing advice is followed.
3. We recommend that no additional PPE is required unless performing direct care (eg suction) via the tracheostomy.
4. When performing direct tracheostomy care, we recommend the use of droplet precaution PPE: fluid resistant surgical mask, apron, disposable gloves, eye/face protection.
5. For routine suctioning, we recommended that a separate space with ventilation be used if possible. However, this is not essential.
6. If used, we recommend that a separate space should be surface cleaned (within approximately 2 metres of the child) and left empty for a period of approximately 20 minutes after suctioning, if possible. Note: this is a practical recommendation for which there is no evidence to guide practice.
7. We recommend that emergency suction should take place without delay. This is a potentially life-saving procedure and the extremely low risk of generating viral aerosols in an asymptomatic child.

8. We recommend that emergency tube changes should take place without delay. This is a potentially life-saving procedure and the extremely low risk of generating viral aerosols in an asymptomatic child.
9. We recommend that a 'trach phone' or similar device is used for spontaneously ventilating tracheostomy children. These devices can allow suctioning without disconnection and may limit potential aerosol spread.
<https://www.atosmedical.co.uk/product/trachphone/>



10. We recommend that when disconnecting children on LTV from the ventilator to deliver care to the tracheostomy, a cap is temporarily placed on the end of the ventilator circuit.
11. We recommend that symptomatic children should not attend school. Symptoms suspicious of a potential COVID-19 infection in children with a tracheostomy (including LTV) are either/or:
 - a. Temperature $>38^{\circ}\text{C}$
 - b. Any abnormal changes in secretions either volume or colour
12. Children who are unwell will require isolation and testing as per PHE guidance for all children.
13. If 'local lockdowns' occur due to spikes in regional viral prevalence, advice from the relevant authorities with regard to testing, isolation and shielding should be followed.

Principal authors

1. Catherine Doherty, Consultant Paediatric Anaesthetist RMCH
2. Neil Bateman, Consultant Paediatric ENT RMCH
3. Michelle Wyatt, Consultant Paediatric ENT GOSH
4. Jo Cooke, Paediatric Tracheostomy Nurse Specialist GOSH
5. Christine English, ACP ENT RMCH
6. John Russell, Consultant Paediatric ENT Dublin
7. Stuart Wilkinson, Consultant Paediatric Respiratory Consultant and LTV lead RMCH
8. Brendan McGrath, National Clinical Advisor for Tracheostomy, NHS England

Key references

1. <https://www.gov.uk/government/publications/safe-working-in-education-childcare-and-childrens-social-care/safe-working-in-education-childcare-and-childrens-social-care-settings-including-the-use-of-personal-protective-equipment-ppe#what-specific-steps-should-be-taken-to-care-for-children-with-complex-medical-needs-such-as-tracheostomies>
2. <https://www.rcpch.ac.uk/sites/default/files/generated-pdf/document/COVID-19---%2527shielding%2527-guidance-for-children-and-young-people.pdf>
3. <https://www.rcpch.ac.uk/sites/default/files/generated-pdf/document/National-guidance-for-the-recovery-of-elective-surgery-in-children.pdf>
4. <https://www.rcpch.ac.uk/resources/covid-19-research-evidence-summaries#transmission>
5. <https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control/covid-19-infection-prevention-and-control-guidance-aerosol-generating-procedures>
6. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/910885/COVID-19_Infection_prevention_and_control_guidance_FINAL_PDF_20082020.pdf