COVID-19 - guidance on clinically extremely vulnerable children and young people

Health Policy team
This page provides advice to members on which paediatric patient groups are considered to be clinically extremely vulnerable during the COVID-19 outbreak and at very high risk of severe illness from coming into contact with the virus.

This updated RCPCH advice for clinicians is provided to help members in their discussions with children and young people who are clinically extremely vulnerable across the UK and their families.

This advice was developed in partnership with a wide range of paediatric specialty groups: British Association of Paediatric Nephrology, British Association of Perinatal Medicine, British Congenital Cardiac Assocation, British Inherited Metabolic Disease Group, British Paediatric Allergy, Immunity & Infection Group (working with the UK Primary Immunodeficiency Network), British Paediatric Neurology Association, British Paediatric Respiratory Society, British Society for Paediatric Endocrinology and Diabetes, British Society of Paediatric Gastroenterology, Hepatology and Nutrition, British Society for Rheumatology, Children's Cancer and Leukaemia Group, Paediatric Special Interest Group of British Haematology Society. Many specialties also worked with parents and patient groups as they developed their advice.
Status
Partnership

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Introduction

Clinically extremely vulnerable (CEV) children are those who are considered to be at the highest risk of severe disease due to SARS-CoV-2 infection.

The governments and public health agencies issue guidance and advice for people who fall into this category. When rates of transmission of SARS-CoV-2 are high in the community, locally or nationally, people who are CEV may be advised by governments to ‘shield’. For children and young people this may mean not attending school and adopting stringent hygiene and social distancing measures.

Children who are clinically extremely vulnerable

The RCPCH has been reviewing the evidence base around the impact of SARS-CoV-2 infection on children and young people with comorbidities which has been developing over time. We are also working with paediatric specialties to review this evidence and advise on which children and young people are at the highest risk of severe disease due to SARS-CoV-2 infection because they are ‘clinically extremely vulnerable’ (CEV). This evidence includes the following:

- Research evidence summaries
- Service evaluation and audit on the care needs of children admitted to hospital (England)
- Systematic review of evidence about milder outcomes in children

We know that the vast majority of children with conditions including asthma, cystic fibrosis, diabetes, epilepsy and kidney disease are not CEV.

In principle:

- Children and young people who are cared for only by their GP will not be CEV.
- A small group of children are CEV due to their pre-existing condition or specialist treatment (Group A).
- A further group of children exists who due to their underlying condition and specialist treatment may possibly be CEV (Group B). This will be determined on individual basis, in discussions between the clinician, the child and their family. Of note, the majority of children in this group are not CEV.

Young people’s transition to adult services when CEV

Government advice on who is clinically extremely vulnerable differs for adults and children and young people. Risk of complications from SARS-CoV-2 infection is increasingly recognised as being primarily age related. As some patients transition from paediatric to adult care, they may have new discussions with their adult clinicians around their clinical vulnerability. Paediatricians who are treating young people who are CEV and transitioning to adult care should discuss the risk of SARS-CoV-2 infection with the young person and the adult clinician as a patient moves between services, using the specialty guidance linked

below.

Identifying children and young people who are CEV

Our advice identifies children and young people (under 18 years of age) who are clinically extremely vulnerable (CEV) due to the risk of severe disease caused by SARS-CoV-2 infection.

The evidence gathered since the start of the pandemic indicates that the risk of severe disease caused by SARS-CoV-2 infection in children is extremely low and although no one group of conditions has been identified as being at particular risk, specialists have identified those conditions which may make the child or young person CEV.

These children are usually CEV under normal (non-pandemic) circumstances, and at risk of severe disease due to a variety of infections which would result in mild disease in the majority of the population. Before the pandemic many of the children and young people in Group A and some in Group B would have been advised from time to time to not attend school due to their clinical condition or the treatment required to manage it. Similarly, their families and households would be advised to take extra care around hygiene and infectious contacts.

Group A

Group A lists conditions that mean a child or young person is clinically extremely vulnerable (CEV).

Immunodeficiency and immunosuppression

- Children with risk of severe infection due to their primary immunodeficiency. Only a small number of children fall into this category. More advice for clinicians is available from UK Primary Immunodeficiency Network (PDF). Advice for parents is also available from PIDUK.
- Children at risk of severe infection due to immunodeficiency induced by their disease or their drugs as part of their therapy (for example, some post-transplant immunosuppression, severe vasculitis). This may include children who are clinically vulnerable during the period before and after transplants. The duration of immunosuppression may differ for solid organ transplant and stem cell transplant. Specific guidance for children and young people on immunosuppression will be specialty specific and depending on their disease as well as medications prescribed.

Oncology

Children with very specific immunosuppression as part of their cancer therapy. This means those who:

- are receiving induction chemotherapy for acute lymphoblastic leukaemia (ALL) and Non-Hodgkins Lymphoma
- are receiving chemotherapy for acute myeloid leukaemia (AML)
- are receiving intensive chemotherapy for relapsed and/or refractory leukaemia or lymphoma

- have received a donor stem cell transplant (allogeneic transplant) in the last 12 months
- have received their own stem cells back (autograft transplant) in the last 6 months
- are undergoing CAR-T therapy and for 6 months following CAR-T therapy.

More advice is available from the Children's Cancer and Leukaemia Group.

Group B

Group B lists conditions that require discussion between the clinician and the child and their family/carer to establish whether they are clinically extremely vulnerable (CEV) on a case by case basis. This decision will depend on the severity of the condition and knowledge that the secondary and tertiary care clinical teams have of the particular circumstances of the child.

We recognise that most children with conditions listed in Group B will **not** be CEV.

Although many diseases are treated with similar immunomodulatory drugs, advice may differ between conditions as an assessment of clinical vulnerability is based on a combination of the drug effect and the underlying disease.

Note: there may be other patients who do not fit these categories below or under other specialties, but secondary care clinicians feel, after discussions with families, that an individual child is CEV. We advise contacting their tertiary specialists for advice.

Cardiology

- Fontan, single ventricle physiology, especially with evidence of 'failure', and or end organ damage
- Persistent cyanosis
- Pulmonary Arterial Hypertension (PAH) especially those on pulmonary vasodilator therapy
- Severe and or symptomatic heart failure, particularly those on heart failure therapy
- Pregnant young mothers with some congenital cardiac abnormalities

More information is available from the BCCA.

Haematology

- For children with sickle cell disease, this means those:
  - with additional co-morbidities causing concern from their clinicians (for example, progressive critical neurovasculopathy, severe or symptomatic heart failure)
  - with a history, within the preceding 12 months, of either one or more chest crisis requiring intensive care treatment or two or more chest crises requiring treatment.
- For children with thalassaemia, this means those with severe iron overload (T2 *< 10 ms) and additional co-morbidity causing concern.
- For children with Diamond Blackfan Anaemia, this means those who have an associated immunodeficiency, severe iron overload (as per thalassaemia definition) or are on prednisolone (or equivalent) ?0.5 mg/kg/day.
- For children with other rare inherited anaemias, for example. pyruvate kinase deficiency, congenital dyserythopoietic anaemia, if they are at particularly high risk due

to iron overload as per thalassaemia guidelines above.

Note: Alone, asplenism due to surgery or functional asplenism is not a reason to shield, but could be considered if other co-morbidities.

Immunodeficiency

- **HIV**: Only children and young people who have a CD4 count less than 50 or who have had an opportunistic illness within the last six months (or who have one of the other CEV conditions listed) should be considered to be CEV. We recommend discussion with tertiary specialist if any doubt. Note that advice differs from that for primary immunodeficiency.

More advice for clinicians is available from Children's HIV Association, as well as advice for parents.

- **Primary immunodeficiency**: Most immunodeficiencies, in particular those involving antibody deficiencies, do not make a child or young person clinically extremely vulnerable (CEV).

More advice for clinicians available from UK Primary Immunodeficiency Network. Advice for parents is available from PIDUK.

Neonatal

- Ex-premature infants with oxygen and/or intermittent non-invasive ventilation requirements

Neonatalogists may also consider the advice offered for cardiology and respiratory patients for information about specific cardio-respiratory risk factors that might also pertain to the neonatal group.

Nephrology (kidney medicine)

- Those with recent kidney transplants – first three months immediately after transplant
- Those on a high level of immunosuppressive medication for active disease undergoing induction treatment
- The kidney team determines with the family that the child is at high risk

More information available from the British Association for Paediatric Nephrology and the Renal Association.

Neurology

- Patients with significant difficulty with swallowing (eg myotonic dystrophy patients)
- Patients at significant risk of decompensation during infection (eg mitochondrial disease)
- Patients with symptomatic heart failure, particularly those on heart failure therapy (eg Duchenne muscular dystrophy)
- Patients with myasthenic syndromes

More advice is available from the British Paediatric Neurology Association.

Paediatric gastroenterology, hepatology and nutrition

Paediatric inflammatory bowel disease (IBD) patients who meet one or more of the following criteria:

1. Intravenous or oral steroids ?20mg prednisolone (or >0.5mg/kg) or equivalent per day (only while on this dose)
2. Commencement of biologic therapy plus immunomodulatory or systemic steroids within previous six weeks
3. Moderate to severely active disease not controlled by moderate risk treatments who may require an increase in treatment

Intestinal failure patients requiring Home Parenteral Nutrition (HPN) who meet one or more of the following criteria:

1. Primary immunodeficiency or immunodeficiency induced by drugs as part of their therapy.
2. Other significant conditions or other organ involvement (renal, haematology, cardiac, GI, respiratory, diabetes mellitus)
3. Social cofactors (eg heavily reliant on support from healthcare professionals/ carers)

Liver disease who meet one of more of the following criteria:

1. Decompensated liver disease
2. Receiving post-transplant immunosuppression or on Liver/small bowel/multivisceral transplant waiting list
3. Liver disease and other significant conditions or other organ involvement (renal, haematology, cardiac, GI, respiratory, diabetes mellitus)
4. Active or frequently relapsing autoimmune liver disease where they are likely to need increase in treatment

More information is available from the British Society for Paediatric Gastroenterology, Hepatology and Nutrition.

Respiratory

Most of the children in the respiratory groups listed below are not CEV but special consideration should be given to those with a recent PICU or HDU admission.

- Children with significant impairment in ability to cough and to clear airway secretions due to disease severity. This will include those children with severe neurological

diseases including severe cerebral palsy, neuromuscular disabilities, severe motor impairment and those with severe metabolic disease
- Children who otherwise require a cough assist device to help with clearance of airway secretions
- Children who are life-dependent on long term ventilation, both invasive (via tracheostomy) and non-invasive (CPAP and BiPAP)
- Children with severe lung disease requiring continuous or overnight supplementary home oxygen and/or intermittent non-invasive ventilation
- Children with:
    - Cystic fibrosis and Primary ciliary dyskinesia
    - Severe bronchiectasis
    - Severe restrictive lung disease such as interstitial lung disease or obliterative bronchiolitis
    - Severe asthma: children treated with biological agents or maintenance oral steroids. **Note** the large majority of children with the most severe asthma including those treated with biological agents and daily prednisolone will not be CEV
    - Repaired congenital thoracic abnormalities such as congenital diaphragmatic hernia / trachea-oesophageal fistula only if significant airway or lung problem.

Notes on other conditions

Diabetes

There is no evidence that children with diabetes are more likely to be infected with COVID-19 compared to children without diabetes. More information is available from the Association of Children's Diabetes Clinicians.

Down's syndrome

There is evidence12 that some adults with Down's syndrome may be at risk of complications from COVI-19, this primarily appears to be age related. There is no evidence that children with Downs syndrome and without co-morbidities need to take more care than is currently advised for all. Some children with Downs syndrome will have co-morbidities from either Group A or Group B, and they and their families will need to have conversations with their clinicians to determine if they are clinically extremely vulnerable. More information is available from the Down's Syndrome Association.

Endocrinology

Children and young people who have hormone problems and in particular who are taking steroids (hydrocortisone, prednisolone, dexamethasone) because their adrenal glands do not work properly (steroid replacement therapy) are at no more risk of catching COVID-19 than other children. More information is available from the British Society of Paediatric Endocrinology and Diabetes.

Inherited metabolic diseases (IMD)

Children with an IMD who as a consequence fulfil one of the criteria in Group A will be CEV.

Children with an IMD who fulfil one of the criteria in Group B may be considered to be CEV depending on discussion with the multidisciplinary team and parental assessment of the individual circumstances. Children with an IMD who do not fulfil Group A or B criteria should follow the advice given to the general population.

Rheumatology / paediatric ophthalmology

Our advice has changed because of evidence that has now become available from across Europe. There is no evidence that children and young people with rheumatological or inflammatory ophthalmic conditions are more likely to be infected with COVID-19 than those without. If children and young people with rheumatological or inflammatory ophthalmic conditions do become infected with COVID-19 there is no evidence that they will become more unwell compared with children and young people without these conditions. This advice includes those on immunosuppressive medications. Our advice is paediatric rheumatology and paediatric ophthalmology patients should attend school in accordance with government advice.

Children who are CEV to SARS-CoV-2 infection and attending school

The criteria above are a means of identifying those children and young people who are CEV. They do not directly determine whether a child or young person should attend school.

While there may be other clinical reasons that prevent a child with underlying health conditions from attending school, while coronavirus shielding advice is paused, the small group of children who are considered to be CEV can attend school.

Governments may reintroduce shielding advice at a local or national level. If this happens, children and young people who are advised to shield because they are CEV will receive a letter from the government. This may include advice not to attend school. Parents should contact their child's specialist or GP if their child receives a letter telling them they are clinically extremely vulnerable and they should shield that they did not expect. If they do not have a specialist then parents should discuss with their GP who should arrange their removal from the shielding list or request advice from their local paediatric centre.

Families are understandably worried. We will continue to update current evidence on COVID-19 and children, and members are encouraged to use this when advising families.

Shielded patients lists – role for paediatricians

Depending on the course of the pandemic and the community infection rate, specific public health measures, such as shielding, may be reintroduced for those children and young people classed as CEV.

Health services in each UK nation have established processes for maintaining a shielded patients list to help communicate public help advice to those who are CEV. It is essential that these lists are kept up to date.

It is the role of paediatricians to look at patients who are on the current shielded patient list

and identify those children and young people who are not CEV. If a child is no longer CEV, clinicians should discuss this with children and their families/carers. Patients can only be removed from the shielding patient list by their GP or specialist, following discussion/consultation with the child and their family, and other clinicians where appropriate. Paediatricians can start this process through letters, phone calls or face-to-face discussions and consultations, as appropriate.

There are different operational arrangements across the UK to update shielded patient lists, and paediatricians should engage with local processes.

In England and Wales, medical directors and paediatric clinical directors should be cascading lists to paediatricians as a matter of urgency. This list contains the names of patients classified as clinically extremely vulnerable. Paediatricians are asked to review that list in line with RCPCH advice and take steps to remove patients who are inappropriately listed. Please contact your Clinical Director if you have not received this list.

In Northern Ireland Trusts have been asked to provide support to paediatricians for maintaining lists.

Paediatricians are also asked to provide advice and guidance to primary care colleagues as needed, to ensure lists are up to date, and to avoid further harm being caused by keeping children isolated and unnecessarily away from school and other activities.

England

- Details on maintaining the SPL are available on NHS Digital's website for GPs and for specialists. This also provides a link to a template letter for those not considered to be clinically extremely vulnerable
- Advice for Trusts

Northern Ireland

- 6 October CMO's letter to Trust Chief Executives regarding the maintenance of the shielding patients lists

Scotland

- Advice for clinicians about shielding patients lists.
- Health Protection Scotland COVID-19 search criteria for shielding.

Providing advice to families

The RCPCH is very aware that this has been a very confusing and distressing time for families and young people.

The important message we should deliver is that children very rarely suffer complications from SARS-CoV-2 infection: in a UK wide study only 4% of all admissions and only 1% of intensive care admissions were under 18.3 Children from BAME backgrounds do appear to be disproportionately affected; however, risk of hospital admission for this group still remains very low. Similarly, children who are obese seem to be slightly more likely to be admitted than those not obese. We do not know if these risk factors are linked to socioeconomic

factors. Access to good health care advice should be available for all and children should be encouraged to make healthy lifestyle choices.

Accessing healthcare

Children and young people who are CEV should still attend hospital for essential treatment as recommended by their clinical teams, following risk assessment. The need for this should be discussed with families and young people in a sensitive and reassuring manner.

It is understandable that parents may be apprehensive about attending hospitals even when it is clinically important to do so. This should be considered when putting in place measures to support safe service restoration and provide 'COVID-protected' environments. It should also be reflected in information provided to patients about attending appointments and visiting NHS sites.

The clinical team should do all they can to encourage attendance. If, however, non-attendance becomes a clinical concern (despite all attempts at reassurance) and there is a concern for the child, then for the safety of the child, further steps need to be taken. On occasion, non-compliance with treatment recommendations may amount to significant neglect of medical needs and will require discussion with the local safeguarding team, particularly the Named Doctor for Safeguarding Children, and may meet threshold for referral to children's social care.

Pregnancy

The Royal College of Obstetricians and Gynaecologists has issued guidance on coronavirus and pregnancy. This warns that pregnant mothers in the third trimester (beyond 28 weeks) may be at increased risk of complications so should take extra care to avoid infection. this should apply to young mothers to, by following social distancing advice and good hand hygiene. Risk factors include those from a BAME background, with a BMI of 30 or above or pre-existing medical morbidities. Pregnant mothers with cardiac co-morbidities may be advised by their cardiologist or obstetrician that they are clinically extremely vulnerable.

Further information

RCPCH - COVID-19 - resources for parents and carers

PHE (Public Health England) guidance on shielding and protecting extremely vulnerable people from COVID-19

PHE PHE guidance on supporting children and young people's mental health and wellbeing

NHS England advice and signposts for patients (PDF)

Northern Ireland advice for patients who are shielding

NHS Scotland advice for patients who are shielding

Scottish Government advice for patients who are shielding

Welsh Government advice for patients who are shielding

Revisions and updates

This advice reflects the current understanding of the risks associated with COVID-19 infection. We will continue to update and revise this advice as we learn more about the impact of COVID-19 infection on the health of children and young people with comorbidities and as public health advice is updated. If you have comments or questions about this guidance, please email health.policy@rcpch.ac.uk.

Update on shielding: 22 September 2020 - England and Wales

Medical Directors and Paediatric Clinical Directors should be cascading lists to paediatricians as a matter of urgency. This list contains the names of patients classified as clinically extremely vulnerable.

Paediatricians are being asked to review that list in line with RCPCH advice below, and take steps to remove patients who are inappropriately listed. If children are not removed from this list, and shielding is reinstated, it is highly likely that children will be removed from school settings inappropriately.

Please contact your Clinical Director if you have not received this list.

Update on shielding: 18 August 2020

- It is now the responsibility of paediatricians to look at our patients who are on the current shielded patient list and to communicate any changes with families and children who are no longer clinically extremely vulnerable.
- Paediatricians should be updating their shielded patients lists now. Children and families should be at the centre of this process, and advised about how the changing advice on extreme clinical vulnerability affects them. Paediatricians can start this process through letters, phone calls or face-to-face discussions and consultations, as appropriate
- There are different operational arrangements across the UK to update shielded patient lists, and paediatricians should engage with local processes. It is essential that shielded patient lists are kept up to date in line with current clinical advice. While shielding advice is currently paused, if it were to restart, we need to ensure we don’t cause harm by keeping children isolated and unnecessarily away from school and other activities.

Update on shielding: 31 July 2020

From August, we expect that UK governments’ public health advice on shielding will be paused (except for local lockdowns). This means that children and young people who are clinically extremely vulnerable (CEV) will be advised to follow the same precautions as the rest of the population, such as hand hygiene and social distancing.

In England, Northern Ireland and Scotland, we expect advice on shielding to be paused from 1 August. In Wales, this is expected to happen on 16 August.

The shielded patient lists (SPL) will continue to be maintained while shielding is paused in

case increases in prevalence mean governments reintroduce shielding measures in the future. It is important therefore to maintain an accurate list to ensure those children who do not need to be shielded are not left on the list if shielding was to return.

Therefore, over the summer, all children and young people currently on the SPL should be reviewed by their clinicians, to discuss whether they are still considered to be CEV before the return to school after the summer break.

For many children this may be their GP who may seek advice and guidance from us as paediatricians. This advice should be straightforward to give from the guidance below. Alternatively it will be the lead paediatrician to advice the family who may be in secondary or tertiary care.

Children and young people who have been shielding, and their families and carers, may be anxious about attending health settings. This should be considered when putting in place measures to support safe service restoration and provide 'COVID-protected' environments. It should also be reflected in information provided to patients about attending appointments and visiting NHS sites.

Latest updates to this page

Updates in this version (5 November 2020)

- Guidance updated in partnership with specialty groups to support clinicians in periods of increased national restrictions.

Updates in version 5 October 2020

- update to Rheumatology / Paediatric Ophthalmology advice.

Updates in version 14 September 2020

- Update to Renal section under Group B

- 1. Clift AK, Coupland CAC, Keogh RH et al. Living risk prediction algorithm (QCOVID) for risk of hospital admission and mortality from coronavirus 19 in adults: national derivation and validation cohort study. BMJ Oct 2020 doi.org/10.1136/bmj.m3731
- 2. T21 Research Society. COVID-19 and Down Syndrome T21 Research Survey, July 2020. www.t21rs.org/results-from-covid-19-and-down-syndrome-survey/
- 3. Swann OV, Holden KA, Turtle L, et al. Clinical characteristics of children and young people admitted to hospital with covid-19 in United Kingdom: prospective multicentre observational cohort study. British Medical Journal. 2020. www.bmj.com/content/bmj/370/bmj.m3249