



Royal College of
General Practitioners



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Paediatrics and Child Health
Leading the way in Children's Health

*The***AHSN***Network*
Supporting the Health and Care **Reset**

COVID-19 and children: what the busy clinician needs to know

Dr Jonathan Leach OBE, Hon Sec and COVID-19 lead RCGP

Dr Mike Linney, Paediatrician and registrar of the RCPCH

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Dr Alison Tavaré, Primary Care Clinical Lead West of England AHSN



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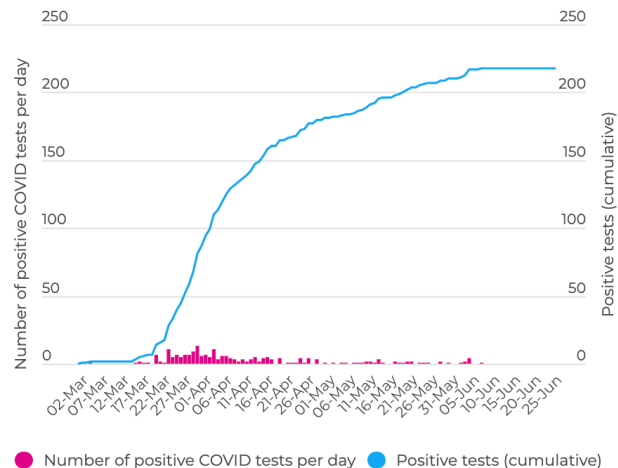
TheAHSNNetwork
*Supporting the Health and Care **Reset***

Overview of webinar

- Clinical
 - COVID and children: overview of the illness and paediatric inflammatory multisystem Syndrome
 - Shielding /Carriage of COVID
 - Non-COVID illness
- Wider impact of COVID on children and looking forward
 - Pregnancy and the newborn
 - Changes in hospital attendances
 - Safeguarding
 - Looking forward: ensuring routine work continues
- Resources

COVID-19 and children – presentation

Number of children admitted to hospital with positive test for COVID-19

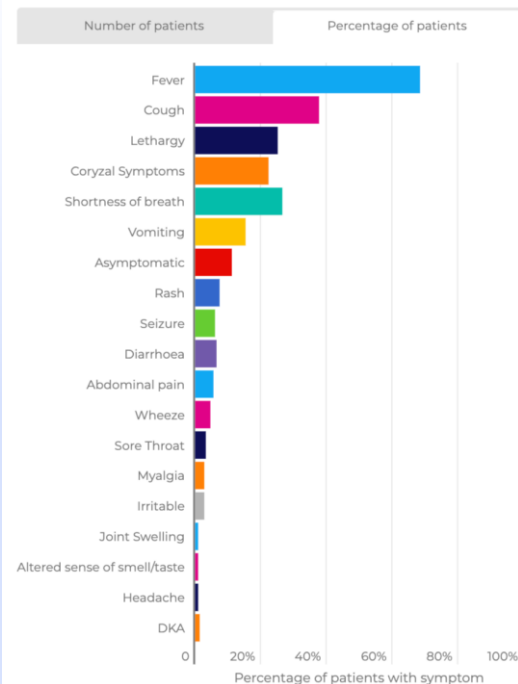


Source: Impact of COVID-19 on child health services tool: NHSE/ RCPCH weekly reporting

<https://www.rcpch.ac.uk/resources/covid-19->

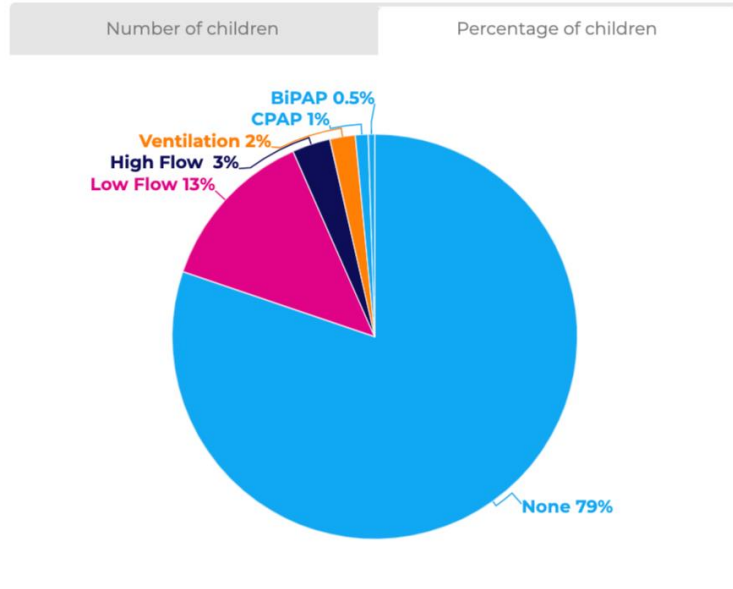
- Low incidence <2%
- Average age at presentation = 3

Presenting symptoms of children hospitalised with COVID-19



Management of COVID-19 in children

Maximum respiratory support for children hospitalised with COVID-19



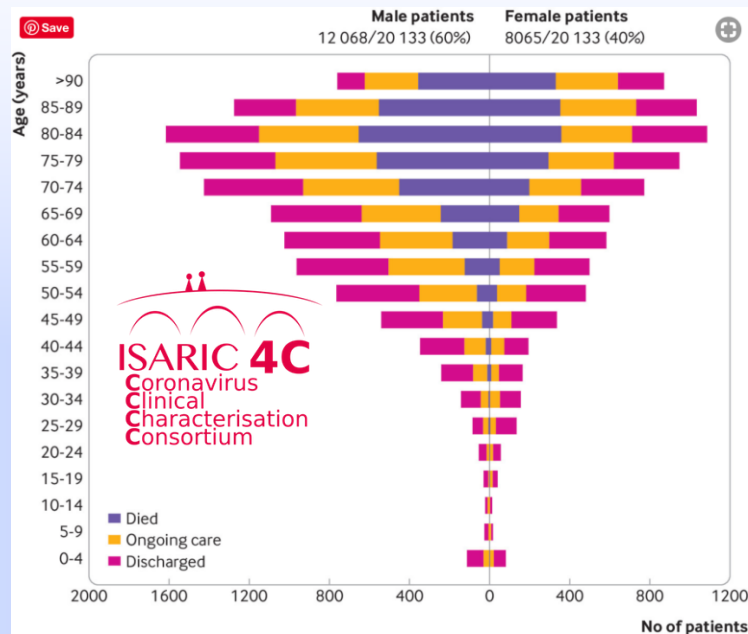
- Low burden of illness in children
- 79% required no respiratory support
- Low rate of PICU admission ~ 2%
- Approximately 70 UK PICU admissions

Source: Impact of COVID-19 on child health services tool:
NHSE/ RCPCH weekly reporting

<https://www.rcpch.ac.uk/key-topics/covid-19>

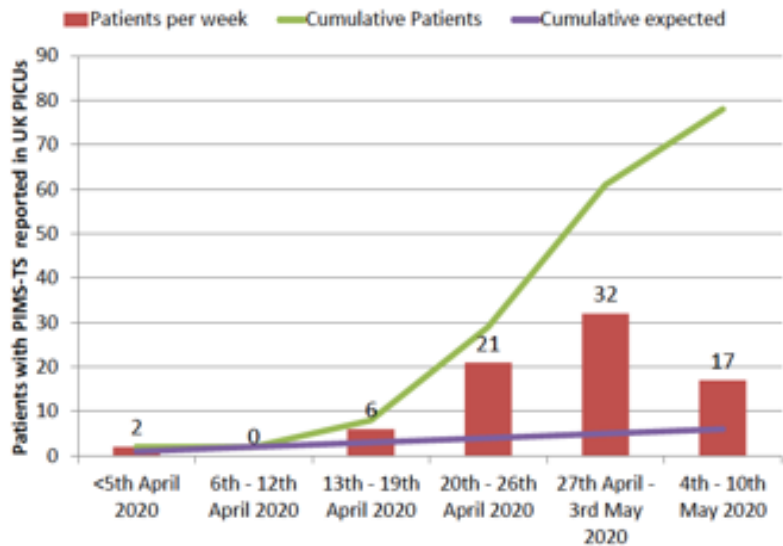
COVID-19 in children – what happened

- Low numbers of cases of COVID-19
- Asymptomatic or mild disease
- Critical illness and death extremely rare
- No new risk factors
- Blood parameters **not** like severe COVID-19 in adults
- Early questions – **why is COVID-19 less common and less severe in children?**

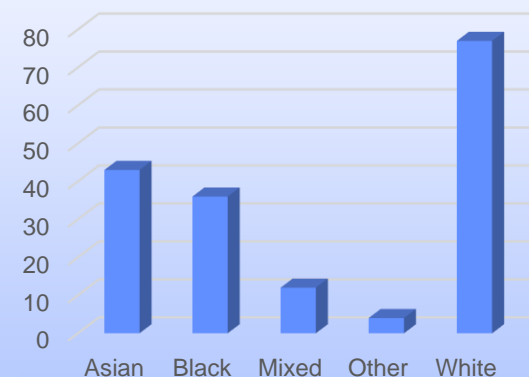


UK PICUs reporting cases of PIMS-TS

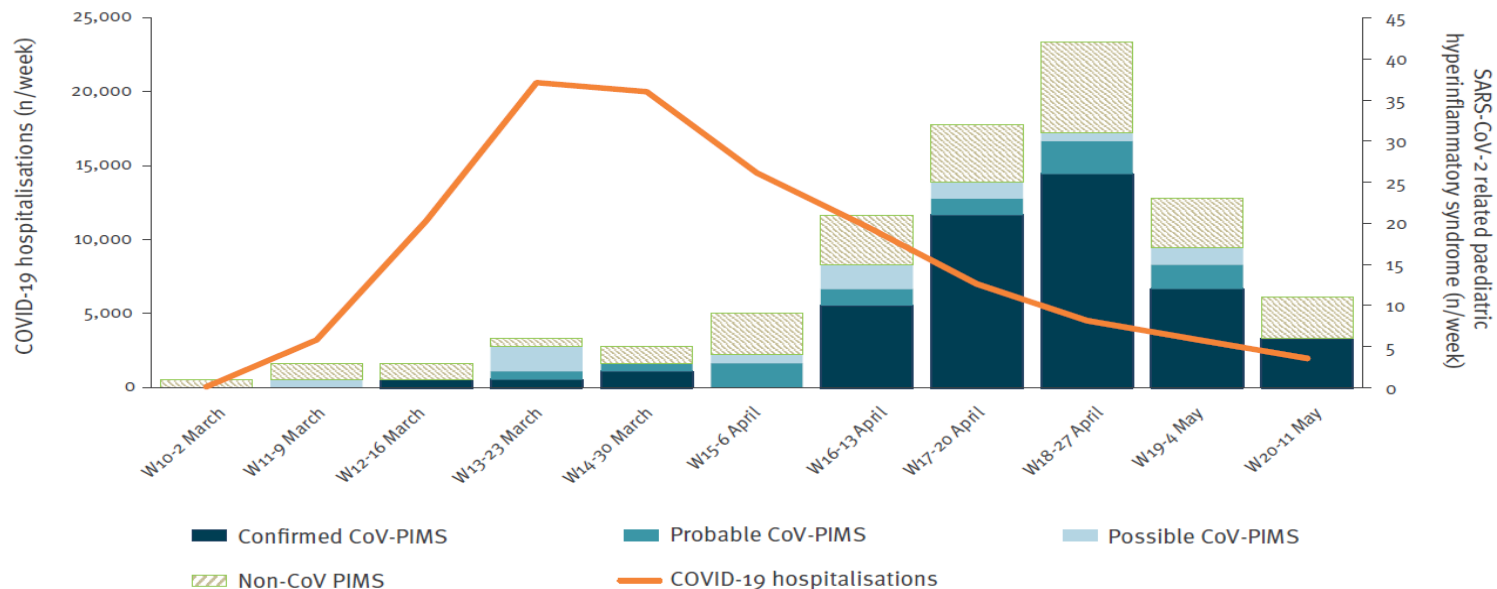
PIMS-TS admissions to UK PICUs 1st April - 10th May 2020



No. cases



Temporal association with COVID-19 with a 4-5 weeks delayed peak



? Kawasaki-like

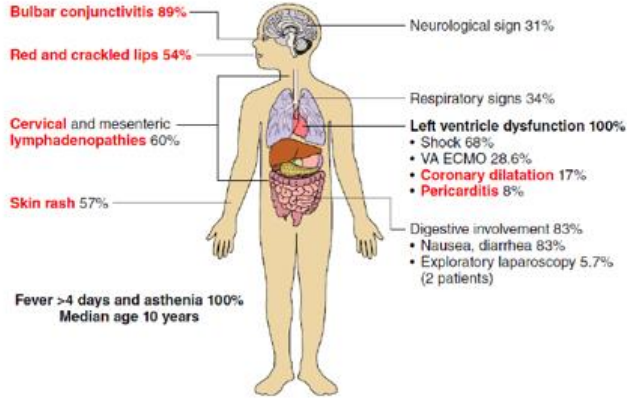
Signs & Symptoms of Kawasaki Disease



Images courtesy of the Kawasaki Foundation

Manifestations of Multi-System Inflammatory Syndrome

SARS-COV-2 related multisystem inflammation



Belhadjer Z et al. Circulation 2020 May 17 (epub)

- Red=signs/symptoms consistent with Kawasaki Disease
- Black=signs that are rare in Kawasaki Disease
- Percentages come from case series of 35 cases over 2 months from 14 centers France and Switzerland (Belhadjer Z et al. Circulation 2020 May 17)

PIM-TS remains a rare condition

| Age group | No. cases |
|-----------|-----------|
| <1yr | 12 |
| 1-4yrs | 29 |
| 5-9yrs | 51 |
| 10-15yrs | 57 |

Guidance: Paediatric multisystem inflammatory syndrome temporally associated with COVID-19

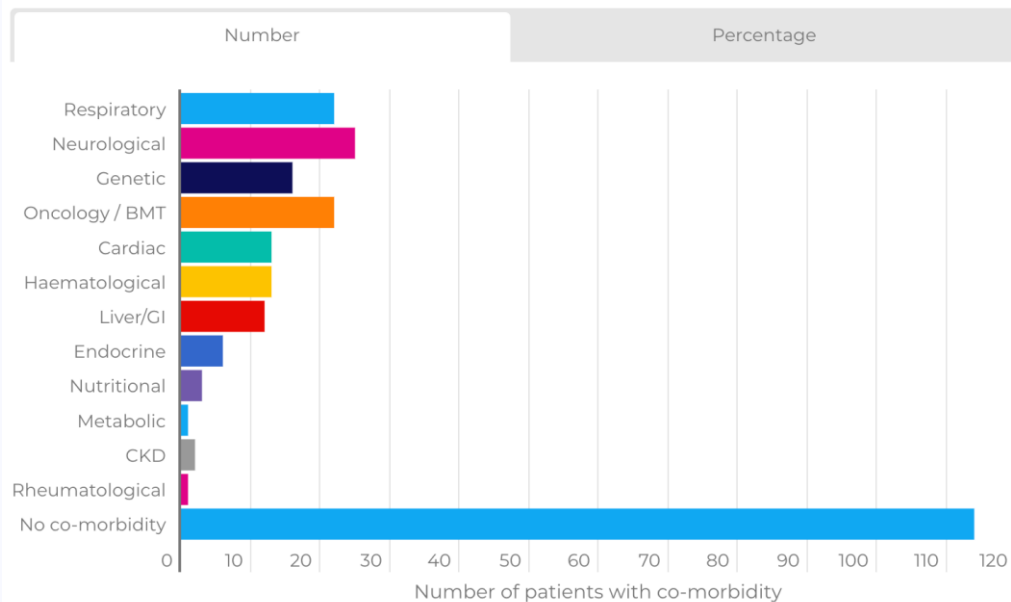
Case definition:

1. A child presenting with persistent fever, inflammation (neutrophilia, elevated CRP and lymphopaenia) and evidence of single or multi-organ dysfunction (shock, cardiac, respiratory, renal, gastrointestinal or neurological disorder) with additional features (see listed in [Appendix 1](#)). This may include children fulfilling full or partial criteria for Kawasaki disease.
2. Exclusion of any other microbial cause, including bacterial sepsis, staphylococcal or streptococcal shock syndromes, infections associated with myocarditis such as enterovirus (waiting for results of these investigations should not delay seeking expert advice).
3. SARS-CoV-2 PCR testing may be positive or negative

27 April 2020

Shielding: 'a much smaller group than we originally thought'

Co-morbidities of children hospitalised with COVID-19



Guidelines: what does this mean to you?

GPs to contact all children on shielding lists this summer

By Nick Bostock on the 6 July 2020

GP practices will be asked to contact thousands of children on shielding lists over the summer to discuss ending protective measures adopted during the COVID-19 pandemic, the government has said.



Deputy CMO Dr Jenny Harries (Photo: Chris J Ratcliffe/Getty Images)

Children with long-term conditions such as asthma, diabetes, epilepsy and kidney disease are 'very unlikely to need to continue to shield in the long-term', the government says.

Deputy CMO Dr Jenny Harries said: 'I do not underestimate the difficulty of children having to stay indoors and to only have limited contact with family and friends for such a long time.'

GP advice

'Families who are uncertain about whether shielding is right for their child in the future will want to discuss this with their doctor, who will be best placed to determine the most appropriate care. These discussions will take place over the summer.'

RCPCH registrar Dr Mike Linney said: 'Fortunately children are less affected by COVID-19. This appears to be the case not just in the UK but worldwide. However, they have suffered from the social effects of lockdown, isolation and school closures.'

<https://www.gov.uk/government/publications/guidance-on-shielding-and-protecting-extremely-vulnerable-persons-from-covid-19/withdrawn-covid-19-guidance-for-young-people-on-shielding-and-protecting-people-most-likely-to-become-unwell-if-they-catch-coronavirus>

Current RCPCH shielding guidelines

- Only those with the most severe conditions will need to shield.
- Paediatric Hospital specialists will manage this group of patients case by case.
- For example high-dose immunosuppressive therapy or severe respiratory problems.
- Extremely unlikely that patients under sole GP care will need shielding.
- This mainly includes asthmatic patients.
- i.e. children on ICS's / LABA's or LR.

Diagnostic challenge and non-COVID illness

GPs go into the autumn with two questions when assessing children:

- ✓ Is this COVID?
 - Case-finding
 - Schooling/outbreaks
 - Family isolation
 - Economic impact
- ✓ Is this child sick?
 - History
 - Observations
 - Context

**Children are not
spreaders of
COVID**

Is this COVID-19 ?

- Fever
- Cough
- Anosmia
 - URTI symptoms
 - Fatigue
 - Muscle aches
 - Vomiting
 - Diarrhoea
- Child testing
- Isolation
- Lack of something more obvious?

Is this child sick?

- Red flags (rash, fit etc.)
- Rate/effort of breathing
- Lethargy/rousable
- Hydrated/perfusing
- Physiology



Which tool to use?

- NICE sepsis
- NICE fever under 5
- Paediatric Early Warning Score / System
- Sepsis trust
- Local tool



So what do I do? (clinical judgement)

- **Listen** (*speed of change, parental experience, concern*)
- **Ask** (*Abnormal for child when unwell*)
- **Look** (*Do I like the look of them? Clinician concern*)
- **Observe** (*Respiratory, perfusion, behaviour*)
- **Examine** (*Rash, cause, chest, belly*)
- **Measure** (*Oximetry, pulse, respiration, temperature*)
- **Safety net** (*Specify what to look for, planned review*)

Pregnancy and COVID-19

Characteristics and outcomes of pregnant women admitted to hospital with confirmed SARS-CoV-2 infection in UK: national population based cohort study

Marian Knight,¹ Kathryn Bunch,¹ Nicola Vousden,² Edward Morris,³ Nigel Simpson,⁴ Chris Gale,⁵ Patrick O'Brien,⁶ Maria Quigley,¹ Peter Brocklehurst,⁷ Jennifer J Kurinczuk,¹ On behalf of the UK Obstetric Surveillance System SARS-CoV-2 Infection in Pregnancy Collaborative Group



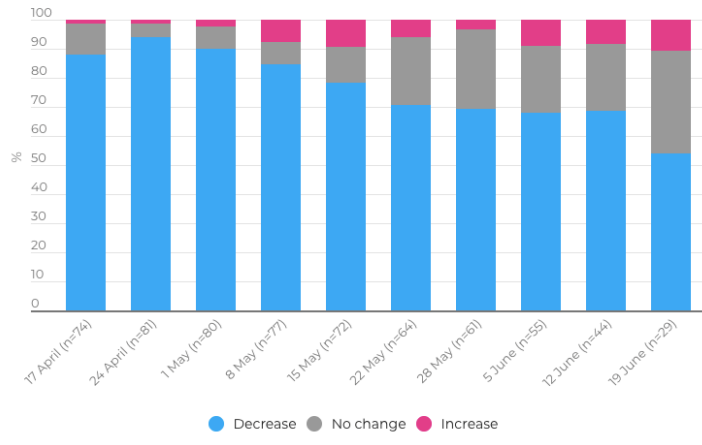
- Currently no evidence pregnant women more likely contract COVID-19 or to need intensive care or die from the illness than non-pregnant adults.
- No increase in miscarriage or 2nd trimester loss.
- 427 pregnant women admitted in pregnancy with confirmed COVID-19.
- Higher risk groups BAME (55%), overweight, obese, maternal age ≥ 35 years or pre-existing co-morbidity e.g. diabetes.
- Women who gave birth : 25% pre-term but fewer than 20 babies $< 32/40$.
- 1 in 20 babies born had a positive test for COVID-19.

What can the primary care clinician do?

- The pregnant woman
 - Liaise with midwife if concerns e.g. possible prem birth, missed appointments etc
 - Social distancing from 28/40.
 - Consider risk factors BAME, overweight or obese, co-morbidities and >35y.
 - If underlying health condition e.g. heart or lung disease will need individual risk assessment.
 - Increased VTE risk so may be discharged on thromboprophylaxis if COVID has been confirmed.
- The baby
 - COVID is not a contra indication to breast feeding (see UNICEF guidance).
 - Information on when to seek help if worried (NHSE information leaflet).
 - Ensure 6-8-week check and routine immunisations etc take place.

Children's emergency presentations during COVID-19 pandemic

Urgent care / Emergency Department



Source: Impact of COVID-19 on child health services tool: RCPCH weekly reporting

https://www.rcpch.ac.uk/sites/default/files/2020-04/covid19_advice_for_parents_when_child_unwell_or_injured_poster.pdf

Roland, D., Harwood, R., Bishop, N., Hargreaves, D., Patel, S. and Sinha, I., 2020. Children's emergency presentations during the COVID-19 pandemic. *The Lancet Child & Adolescent Health*.

Paediatric Emergency Research confirmed overall reduction in ED attendances, but delayed presentations of very sick children rare. Parents respond to red flags. Need to share safety netting information and reinforce message the NHS is open.

Advice for parents during coronavirus

Whilst coronavirus is infectious to children it is rarely serious. If your child is unwell it is likely to be a non-coronavirus illness, rather than coronavirus itself.

Whilst it is extremely important to follow Government advice to stay at home during this period, it can be confusing to know what to do when your child is unwell or injured. Remember that NHS 111, GPs and hospitals are still providing the same safe care that they have always done. Here is some advice to help:

| | |
|---|---|
| <p>RED</p> <p>If your child has any of the following:</p> <ul style="list-style-type: none"> Becomes pale, mottled and feels abnormally cold to the touch Has pauses in their breathing (apnoea), has an irregular breathing pattern or starts grunting Severe difficulty in breathing becoming agitated or unresponsive Is going blue round the lips Has a fit/seizure Becomes extremely distressed (crying incessantly despite distraction, comfort, very unhappy; difficult to sooth or unresponsive) Develops a rash that does not disappear with pressure (the 'Glass test') Has testicular pain, especially in teenage boys <p>You need urgent help: Go to the nearest A&E department or phone 999</p> | <p>AMBER</p> <p>If your child has any of the following:</p> <ul style="list-style-type: none"> Is finding it hard to breathe including drawing in of the muscles below their lower ribs, at their neck or between their ribs (heaving) or head bobbing Seems disoriented (dry mouth, swollen eyes, no tears, drowsy or passing less urine than usual) Is becoming drowsy (excessively sleepy) or irritable (unable to settle them with toys, TV, food or picking up) - especially if they remain drowsy or irritable despite their fever coming down Has extreme swelling or complaint of muscle pain Illness under 3 months of age with a temperature above 38°C / 100.4°F Infants 3-6 months of age with a temperature above 39°C / 102.2°F For all infants and children with a fever above 38°C for more than 5 days Is getting worse or if you are worried Has persistent vomiting and/or persistent severe abdominal pain Has blood in their poo or wee Any limb injury causing reduced movement, persistent pain or head injury causing persistent crying or drowsiness <p>You need to contact a doctor or nurse today. Please ring your GP surgery or call NHS 111 - 24x7</p> <p>The NHS is working for you. However, we recognise during the current coronavirus crisis at peak times, access to a health care professional may be delayed. If symptoms persist for 2 hours or more and you have not been able to speak to either a GP or 111, then take your child to the nearest A&E.</p> |
| <p>GREEN</p> <p>If none of the above features are present</p> <ul style="list-style-type: none"> You can continue to provide your child care at home. Information is also available on NHS Choices Additional advice is available to families for coping with crying of well babies Additional advice is available for children with complex health needs and disabilities. <p>Self care Continue providing your child's care at home. If you are still concerned about your child, call NHS 111 - 24x7</p> | <p>IC: N</p> <p>Additional advice is available for children with complex health needs and disabilities.</p> |

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111 and 999 are NHS 24 services. For more information visit www.nhs.uk

Healthier Together **RCPCH** Royal College of Paediatrics and Child Health
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Late presentation

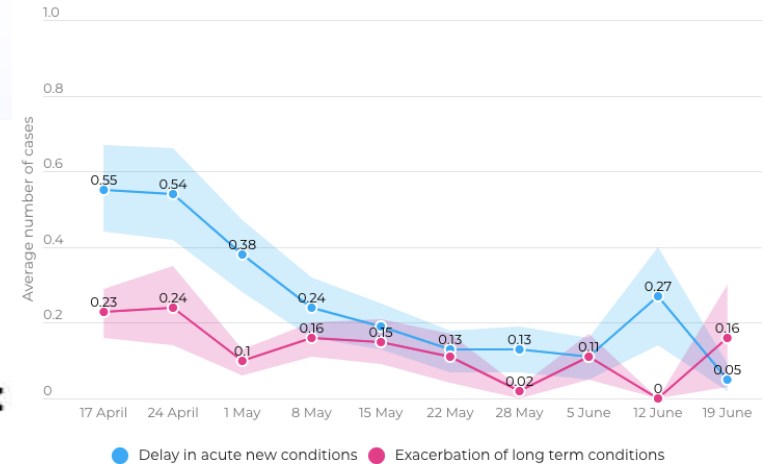
Over 10 weeks surveyed, across UK:

- 178 cases of delay in acute new conditions
- 80 cases of exacerbated long term conditions

The most common late presentation conditions were:

- | | |
|--------------------------------|-------------------------------|
| 1. Acute mental health (12) | 8. Asthma (3) |
| 2. Sepsis (12) | 9. Cardiac arrest (3) |
| 3. Diabetic ketoacidosis (10) | 10. Meningitis (3) |
| 4. Appendicitis (7) | 11. Non-Accidental Injury (3) |
| 5. Diabetes (other) (7) | 12. Safeguarding (3) |
| 6. Fever (6) | 13. Surgery (3) |
| 7. <u>Newborn jaundice</u> (5) | |

How Many children have "presented late" to the Emergency Department at risk of harm related to...



 RCPCH

workforce@rcpch.ac.uk

Safeguarding: children can be 'hidden'

- National Domestic Abuse Helpline, run by Refuge, 50% increase in calls compared to pre-COVID-19, and a 700% increase in web traffic.
- Calls to Child Line have increased: 7,000 counselling sessions re COVID-19.
- Manipulative behaviour by abusers.

Table 1 Child Protection Medical Examinations across four local authority areas of the North East of England, by month in each of 2018, 2019, 2020

| | Area 1 | | | | Area 2 | | | | Area 3 | | | | Area 4 | | | | Total |
|------|--------|-----|-----|-----|--------|-----|-----|-----|--------|-----|-----|-----|--------|-----|-----|-----|-------|
| | Jan | Feb | Mar | Apr | Jan | Feb | Mar | Apr | Jan | Feb | Mar | Apr | Jan | Feb | Mar | Apr | |
| 2018 | 7 | 10 | 14 | 10 | 16 | 12 | 8 | 24 | 0 | 3 | 3 | 4 | 6 | 12 | 11 | 12 | 152 |
| 2019 | 10 | 15 | 15 | 12 | 18 | 17 | 17 | 9 | 2 | 2 | 3 | 4 | 6 | 13 | 8 | 5 | 156 |
| 2020 | 7 | 5 | 7 | 3 | 15 | 14 | 15 | 6 | 0 | 0 | 0 | 0 | 4 | 13 | 6 | 4 | 99 |

Bhopal, S., Buckland, A., McCrone, R., Villis, A.I. and Owens, S., 2020. Who has been missed? Dramatic decrease in numbers of children seen for child protection assessments during the pandemic. *Archives of disease in childhood*.

<https://www.rcgp.org.uk/clinical-and-research/safeguarding.aspx>

RCGP webinar: 'Unseen, unheard: Safeguarding children during COVID-19'

Mental health



144 responses young people 11-25 living working or studying Westminster.
25% from BAME communities had lost family member or neighbour and resulting distress of 7% non BAME.

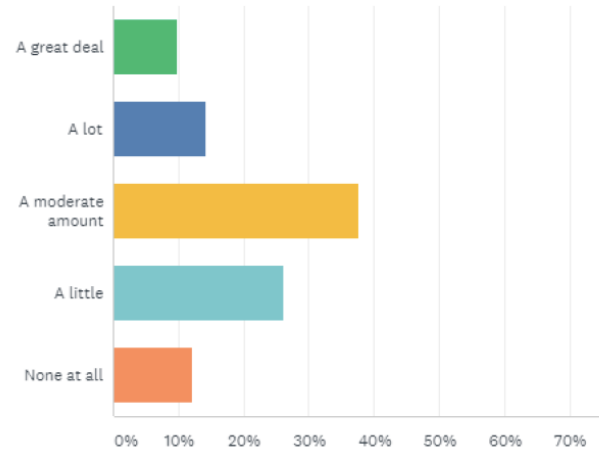
'It's made everything stressful, I miss my life.'

'Stress, because I can't have contact with the family I am not living with.'

'It has its ups and downs.'

'We're closer than ever.'

To what extent do you feel that COVID-19 has had an impact on your mental health?



Looking forward

- Supporting children and their families through the uncertainties of COVID
- Returning to 'core general practice'
- Building on the learning
- 'Top tips'



Resources: RCGP COVID-19 hub RCPCH



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COVID-19 AND SAFEGUARDING

ABOUT US

About ICON

- I – Infant crying is normal
- C – Comforting methods can help
- O – It's OK to walk away
- N – Never, ever shake a baby

Speak to someone if you need support such as your family, friends, Midwife, GP or Health Visitor.



Coronavirus: illness in newborn babies

After babies are born they have to breathe, suck, feed, wee, poo and stay warm. This leaflet will tell you how to keep your baby safe and healthy. Do not delay seeking help if you have any concerns.

UNICEF UK BABY FRIENDLY INITIATIVE
STATEMENT ON INFANT FEEDING DURING THE
CORONAVIRUS (COVID-19) OUTBREAK



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| <p>AMBER</p> <p>If your child has any of the following:</p> <ul style="list-style-type: none"> Is finding it hard to breathe including drawing in of the muscles below their lower ribs, at their neck or between their ribs (recessing or heaving breathing) Seems drowsy (dry mouth, sunken eyes, no tears, drowsy or passing less urine than usual) Is becoming drowsy (increasingly drowsy) or irritable (unable to settle them with toys, TV, food or picking up) - especially if they remain drowsy or irritable despite their fever coming down Has extreme pleasuring or complaints of muscle pain Babies under 3 months of age with a temperature above 38°C / 100.4°F Infants 3-6 months of age with a temperature above 39°C / 102.2°F For all infants and children with a fever above 38°C for more than 5 days Is getting worse or if you are worried Has persistent vomiting and/or persistent severe abdominal pain Has blood in their poo or wee Any limb injury causing reduced movement, persistent pain or head injury causing persistent crying or drowsiness | <p>You need to contact a doctor or nurse today.</p> <p>Please ring your GP surgery or call NHS 111 - dial 111</p> <p>The NHS is working for you. However, we recognise during the current coronavirus crisis all peak times, access to health care professional may be delayed. If symptoms persist for 4 hours or more and you have not been able to speak to either a GP or 111, then take your child to the nearest A&E</p> |
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Healthier Together  RCPCH
The Royal College of Paediatrics and Child Health
Paediatricians for All Ages - October 2016

Postnatal Maternal and Infant Care during the COVID-19 Pandemic: A guide for General Practice

Maternal postnatal checks, the 6-8-week infant examination and routine childhood vaccinations should continue as high priority services during the COVID-19 pandemic.¹ It is critical not to overlook serious issues for mother and infant, and to protect against the resurgence of other vaccine-preventable disease.² This advisory guide is intended to help General Practitioners who deliver these services during the pandemic.

<https://www.rcgp.org.uk/covid-19.aspx>

<https://www.rcpch.ac.uk/key-topics/covid-19>

Key messages

- Most children with COVID will recover with no long-term consequences.
- Most sick children will not have COVID-19.
- Shielding: very few children need to be shielded.

- Pregnancy and COVID: for most is not a problem, but be aware of the at-risk groups .
- Support parents deciding when to ask for medical advice.
- Safeguarding is an ongoing concern.
- Routine work needs to continue.

- What 'top tips' would be helpful?