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Event Cases of severe acute hepatitis of unknown aetiology in children

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NIERP Level Enhanced

Incident Lead Incident Director

Health Protection Teams are asked to share this BN with Local Authority Directors of Public Health for information

Background

UKHSA has received reports of unusually high numbers of acute hepatitis cases without detection of hepatitis viruses (A-E) in children from England, Scotland and Wales in the past few weeks. There is no known association with travel.

The clinical syndrome in currently identified cases is of severe acute hepatitis with markedly elevated transaminases, sometimes preceded by gastrointestinal symptoms, in children up to the age of 13 years. Some cases have required transfer to specialist children's liver units and a small number of children have undergone liver transplantation.

There has been a recent increase in adenovirus rates in England and adenovirus has been detected in some of the affected children, with SARS-COV-2 detected in others, although this may be related to background infection rates. Further cases are being assessed and systematic microbiological and toxicological investigations are underway.

Implications for clinicians and NHS services

All clinicians are reminded of their statutory duty to notify the local health protection team of suspected cases of certain infectious diseases, including acute infectious hepatitis and diseases that may present significant risk to human health.

GPs should be alert to children aged 16 years or under presenting with jaundice or symptoms compatible with acute hepatitis and seek advice from their local Trust.

Hospital clinicians are asked to be aware of potential new cases of acute non A-E hepatitis in children aged 16 years or under, with a serum transaminase >500 IU/L (AST



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or ALT). There should be a low threshold for seeking expert clinical support from, or specialist referral to one of the three paediatric liver centres for children who are clinically unwell or deteriorating.

Cases of acute hepatitis in children up to the age of 16 years with a serum transaminase >500 IU/L, in which hepatitis A-E have been excluded, should be notified as soon as possible during normal working hours to [local health protection teams](#) by telephone.

The following investigations should be performed locally:

Sample type	Test	Pathogen
Blood*	PCR	Enterovirus CMV, EBV, HSV Adenovirus Hepatitis A, Hepatitis E Leptospirosis HHV6 and 7
Blood*	Serology	Hepatitis A, B, C, E CMV, EBV Leptospirosis Anti-streptolysin O titre (ASOT) SARS-CoV-2 anti-S
Urine*	PCR	Leptospirosis
Throat swab*	PCR	Respiratory virus panel (including enterovirus/influenza/adenovirus, SARS-CoV-2)
Throat swab*	Culture	Group A <i>Streptococcus</i>
Stool*	Bacterial culture	Standard bacterial stool pathogens including <i>Salmonella</i> , <i>Shigella</i> , <i>Campylobacter</i> and <i>E. coli</i> 0157
Stool*	PCR	Sapovirus, norovirus, adenovirus, enterovirus Standard bacterial stool pathogen panel to including <i>Salmonella</i> spp
Blood* (whole blood in EDTA and plasma separated specimens)	Toxicology	Local investigations according to history Store samples locally while awaiting further information
Urine*	Toxicology	Local investigations according to history Store samples locally while awaiting further information

*earliest possible sample

Positive results should be reported to UKHSA following the usual process.

Further testing may be required. If possible, the following samples should be stored for future testing:

- Serum and EDTA samples
- Nose and throat swabs (bacterial and viral)
- Faecal sample for further testing as required

Implications for UKHSA sites and services



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UKHSA reference laboratories may receive enquiries.

Recommendations to UKHSA Regions

Health protection teams may receive notifications from local Acute Trusts. They are asked to be alert for these notifications and for new cases of non A-E acute hepatitis.

Health protection teams should enter case details under HPZone unlisted managed context **Acute Hepatitis (non Hep A-E)**. Further information on details to collect will be shared shortly.

Health protection teams and Field Services may be required to support local clinicians to complete detailed trawling questionnaires.

Recommendations to UKHSA sites and services

Nil

Distribution

UKHSA briefing note distribution

Via NHSE to all Acute Trusts and GPs

RCPCH including British Paediatric Surveillance Unit

References/ Sources of information
