

The Management of the Decreased Consciousness Level Guideline Update

Scope

1 Guidance title

The management of children and young people with an acute decrease in conscious level: A nationally developed evidence-based guideline for practitioners.

1.1. Short title

Children and young people decreased conscious level guideline (DeCon).

2 The remit

To update the guideline (The management of a child with a decreased conscious level) which is Funded by a legacy donation from Gordon Denney (founder of the National Reyes Syndrome Foundation which funded the 2015 guideline update).

3 Clinical need for the guideline

3.1 Background

Decreased conscious level in children and young people is an important and concerning clinical presentation with a wide range of potential causes, from trauma to serious medical conditions such as encephalitis. It requires rapid, standardised assessment and management across all acute care settings. For non-traumatic causes, the only UK epidemiological study conducted to date estimated that around 30 per 100,000 children aged 0–16 each year present to hospital with a reduced level of consciousness lasting six hours or more,¹ and although these cases are less common than traumatic

presentations, they carry high morbidity and mortality rates of up to 50%. These risks highlight the ongoing need for clear, consistent, evidence-based guidance to support frontline clinical decision-making.^{1,2}

3.2 Need for guideline update

- The original guideline was developed in 2005. A partial update in 2015 retained some of the 2005 recommendations and added guidance on alcohol intoxication, which had been highlighted as a key gap by the 2011 audit.
- Further revisions followed in 2016 and 2019 to amend details in the measurement of ammonia levels, clarify procedures for obtaining samples, and address transportation risks linked to the lack of hyperammonaemia screening sample analysis.
- In 2020, a revision process was initiated, including a pre-scope exercise, stakeholder consultation, and expert meetings, but progress was paused due to the COVID-19 pandemic.
- A partial update is scheduled to start at the end of 2025 focusing on reviewing and updating key recommendations from the 2015 version and ensure that the guidance reflects current evidence and clinical priorities.

4 The guideline

- The guideline will be developed according to RCPCH standards for guideline development (2020).³
- This document is the final scope. It defines exactly what this guidance will (and will not) examine, and what the guidance developers will consider.
- The areas to be addressed by the guideline are in the following sections.

4.1 Populations

4.1.1 Groups that will be covered

Children and young people aged 4 weeks up to their 18th birthday who have a decreased conscious level, defined as a Glasgow Coma Score or modified Glasgow Coma Score of 14 or less or being responsive only to voice, or pain, or being unresponsive on the AVPU scale.

4.1.2 Groups that will not be covered

- Neonates (28 days or younger)
- Pre-term infant survivors on neonatal intensive care unit
- The following conditions will be considered outside of the scope of the Guideline, and are already addressed by existing Guidelines:
 - Non-ketotic hyperglycaemia
 - Peri-arrest management

4.1.3 Groups that will not be covered but who may still benefit from this guideline

Children and young people with certain pre-existing or chronic conditions will not be covered within the core scope of this guideline. However, they may still present with an acute deterioration in conscious level and could benefit from assessment and management using this pathway. Even where an individualised management plan exists, an acute or chronic deterioration may occur that aligns with the principles of this guideline.

Considerations for these groups

In these circumstances, the guideline may be considered alongside consideration of underlying conditions and any specialist management from their usual clinical teams.

- Children and young people with a previously diagnosed condition which may decompensate causing a reduced conscious level (e.g., epilepsy, ventriculo-peritoneal shunt, previously diagnosed metabolic

condition), who already have an agreed management plan for acute illness. These children may still deteriorate unexpectedly and may benefit from use of this pathway.

- Children and young people who on a day-to-day basis score 14 or less on the Glasgow Coma Scale or Modified Glasgow Coma Scale (e.g., chronic neurological and developmental conditions, epileptic encephalopathy, minimally responsive state following acquired brain injury) Although their baseline is atypical, they may still experience an acute change requiring assessment using this guideline.

4.2 Healthcare setting

Any setting where a health professional may be presented with a child with a decreased conscious level.

4.3 Clinical issues that will be covered

This is a partial update of the 2015 guideline. Only key recommendations that contribute to variation in clinical practice will be included.

Each recommendation will be informed by an updated evidence review; where evidence is lacking, recommendations will be developed using structured consensus methods (e.g., Delphi consensus process or expert discussion). Recommendations covered by new external guidelines will be updated, while those whose content remains valid and reflective of current clinical practice will not be changed.

Areas under consideration include:

- **Initial assessment and monitoring**
 - Observations to support management
 - Criteria for assessing capillary blood glucose
 - Key features in the clinical history
- **Airway, breathing, and circulation**
 - Assessment of airway and airway protection

- Assessment of breathing and oxygen requirements
- Management of circulatory shock
- **Identifying and investigating causes**
 - Sepsis
 - Stroke
 - Metabolic illness (e.g., hypoglycaemia, hyperammonaemia, non-hyperglycaemic ketoacidosis)
 - Intracranial infections (bacterial meningitis, encephalitis, intracranial abscess, TB meningitis)
 - Raised intracranial pressure
 - Hypertensive encephalopathy
 - Prolonged convulsion (neurological outcome, investigations, treatment)
 - Post-convulsion state (incidence, duration, investigations, treatment)
 - Cases where no clinical clues are apparent

New topic: The updated guideline will also include recommendations on the assessment and management of intoxication in children and young people, extending beyond alcohol-related causes. This broader scope was identified as a gap by experts during the pre-scope meeting and has not been addressed in previous versions of the guideline.

4.4 Clinical issues that will not be covered

The partial update will exclude duplicated content (recommendations repeated or paraphrased across sections with the same meaning) and areas of established standard practice where management is consistent, evidence is well established, and variation in practice is minimal.

To ensure focus on the most clinically relevant recommendations, the following areas are excluded:

- Trauma-related reduced consciousness: Covered comprehensively by existing trauma and neurotrauma guidelines.

- Detailed neuroimaging protocols (e.g., CT, MRI): Addressed in specialist radiology and neurotrauma guidance.
- Long-term management and rehabilitation: This update is limited to acute assessment and management.
- Chronic neurological or neurodegenerative conditions: Outside the scope of acute presentations of reduced consciousness.
- Adult populations: The guideline applies only to children and young people (4 weeks up to their 18th birthday).

4.5 Outcomes

- (a) To improve and standardise assessment, investigation and treatment of the child presenting with a decreased conscious level.
- (b) Reduce the risk of misdiagnosing and delayed lifesaving treatment.

4.6 Status

4.6.1 Scope

This is the final scope which has been agreed by the guideline development group and stakeholders.

4.6.2 Timing

The development of this guideline has now commenced, beginning with the pre-scoping stage and early stakeholder engagement in 2025. The process will continue through 2026, with completion and publication of the updated guideline planned for 2027. A multidisciplinary Guideline Development Group (GDG) will be established, bringing together expertise in the management of decreased consciousness as well as stakeholder organisations with an interest in the topic or who represent people whose practice or care may be affected by the condition (see Appendix 1).

5 Related guidance

The updated guideline will replace the management of a child with a decreased conscious level guideline (2019).

There is currently a range of existing guidance updated by NICE covering some of the underlying causes of decreased conscious level as well as related areas on the management of care which will need to be considered as part of the update.

- Epilepsies in children, young people and adults (2025):
<https://www.nice.org.uk/guidance/ng217>
- Head injury: assessment and early management (2023):
<https://www.nice.org.uk/guidance/ng232>
- Fever in under 5s: assessment and initial management (2021):
<https://www.nice.org.uk/guidance/ng143>
- Meningitis (bacterial) and meningococcal disease: recognition, diagnosis and management (2024):
<https://www.nice.org.uk/guidance/ng240>
- Diabetes (type 1 and type 2) in children and young people: diagnosis and management (2023):
<https://www.nice.org.uk/guidance/ng18>
- Suspected sepsis in people aged 16 or over: recognition, assessment and early management (2025):
<https://www.nice.org.uk/guidance/ng253>
- Tuberculosis (2024): <https://www.nice.org.uk/guidance/ng33>
- Child maltreatment: when to suspect maltreatment in under 18s (2017): <https://www.nice.org.uk/guidance/cg89>

- Sedation in under 19s: using sedation for diagnostic and therapeutic procedures (2010):
<https://www.nice.org.uk/guidance/cg112>
- Transient loss of consciousness ('blackouts') in over 16s:
<https://www.nice.org.uk/guidance/cg109>
- Major paediatric trauma radiology guidance:
<https://www.rcr.ac.uk/our-services/all-our-publications/clinical-radiology-publications/major-paediatric-trauma-radiology-guidance/>

5 Further information

The guideline development process is described in the RCPCH standards for development of clinical guidelines in paediatrics and child health (2020)³.

6 References

- 1 Wong, C, Forsyth R, Kelly, T, Eyre, J. Incidence, aetiology, and outcome of non-traumatic coma: a population-based study. Archives of Disease in Childhood 2001; 84(3):193-9.
- 2 RCPCH. Clinicians survey of the use and perception of the management of a child with a decreased conscious level guideline. Decreased consciousness level multi-site audit 2010-2011, London; 2011.
- 3 RCPCH. Setting standards for the development of clinical guidelines in paediatrics and child health 5th Edition, March 2020.

Appendix 1: Guideline Development Group Expertise and Stakeholders Organisations

The Guideline Development Group (GDG) will include multidisciplinary clinical experts, methodologists, and parent/CYP representatives.

Stakeholder organisations such as relevant professional bodies, specialty groups, and associations whose practice or care may be affected will be

identified by the working group. They will be formally invited and engaged at key stages of development, including the scope and draft consultations.

Working Group	Stakeholder Group
<ul style="list-style-type: none"> • Paediatric Emergency Medicine • Paediatric Metabolic Medicine • Paediatric Intensive Care • Paediatric Neurology • Specialist Paediatric Dietician • Paediatric Advanced Clinical Nurse Practitioner • Paediatric Radiologist • Trainee General Paediatrician • ST7 Paediatric Emergency Medicine • ST4 Paediatrician • Advocate representative – patient support group 	<ul style="list-style-type: none"> • Association of Paediatric Emergency Medicine • Royal College of Emergency Medicine • Royal College of Radiologists • British Inherited Metabolic Disease Group • British Paediatric Neurology Association • British Society for Paediatric Endocrinology & Diabetes • Paediatric Critical Care Society • Royal College of Nursing • The Association of Paediatric Anaesthetists of Great Britain and Ireland • British Association of General Paediatricians • The Society of British Neurological Surgeons • Neonatal and Paediatric Pharmacy Group • British Society of Paediatric Radiology • The Encephalitis Society • Children Living with Inherited Metabolic Diseases • Royal College of Psychiatrists • British Academy of Childhood Disability • British Society of Paediatric Radiology • Wellchild charity • CDC national children's bureau • Bernardos • SIGN health - deaf families, families with hearing loss • Contact – for families with children with disabilities

