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's decreased conscious level guideline (DeCon).

2 The remit

National Reyes Syndrome Foundation UK has funded the RCPCH to undertake an update of the 2005 guideline “The management of a child with a decreased conscious level”.

3 Clinical need for the guideline

3.1 Epidemiology

(a) Reduced conscious level in children is a presenting problem which often causes concern for parents and health professionals. There are a number of different causes, some of which may be obvious (e.g. head injury), while others may create significant diagnostic dilemmas (herpes simplex encephalitis or Reye’s syndrome).

(b) For non-traumatic causes, a UK epidemiological study estimated 30/100,000 children aged 0-16 per year presented to hospital with a reduced conscious level, which lasted for six hours or more\(^1\). Although non-traumatic causes of reduced consciousness are less frequent than traumatic causes, the mortality rate is 50% making the topic worthy of attention.

3.2 Current practice
(a) The RCPCH undertook an audit of the management of a child with a decreased conscious level guideline in 2011, which included a survey of clinicians to determine their views on the guideline and usage\(^2\). The audit found that a significant percentage of clinicians only found out about the guideline as a consequence of the audit despite its publication in 2005. Therefore there is a need to improve awareness and dissemination of the guideline.

(b) Alcohol intoxication will be included in the guideline update as the 2011 audit highlighted this as a key area which was omitted from the original guideline.

4 The guideline

a) The guideline will be developed according to RCPCH standards for guideline development (2006), which is NICE accredited.

b) This document is the scope. It defines exactly what this guidance will (and will not) examine, and what the guidance developers will consider.

c) 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 aged 4 weeks to 18 years 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

(a) Neonates (28 days or younger)

(b) Pre-term infant survivors on neonatal intensive care unit

(c) Children 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)
(d) Children who on a day to day basis score 14 or less on the Glasgow Coma Scale or Modified Glasgow Coma Scale (e.g. with dementia, epileptic encephalopathy, minimally responsive state following acquired brain injury)

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**

(a) This is a full update of the original guideline to include;

- Observations to monitor and help manage children with a reduced conscious level
- Assessment of capillary glucose in children with a decreased conscious level
- Features in the history to help manage children with a reduced conscious level
- Assessment of airway and airway protection in children with a reduced conscious level
- Assessment of breathing and oxygen requirements in children with reduced level of consciousness
- Identifying the causes of reduced level of consciousness in children
- Investigating the causes of reduced conscious level in children
- Managing the causes of reduced level of consciousness in children
  - Circulatory shock
  - Sepsis
  - Trauma
  - Metabolic illness; Hypoglycaemia, Hyperammonaemia, Non-hyperglycaemic ketoacidosis,
- Intracranial infections; Bacterial meningitis, encephalitis, 
  Intracranial abscess, Tuberculosis (TB) meningitis

- Raised intracranial pressure

- Hypertensive encephalopathy

- Prolonged convulsion – neurological outcome, tests, treatment,

- Post convulsion state – incidence, duration, test performed, 
treatment

  - No clinical clues to the cause

(b) Alcohol intoxication will be a new area included in the guideline.

4.4 Economic aspects

An update will be undertaken of the economic evaluation provided in the original 
guideline. A cost-effectiveness analysis is beyond the scope of the guideline. 
However the cost comparison of the incurred marginal costs associated with sending 
the recommended core investigations will be carried out.

4.5 Main Outcomes

4.5.1 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 agreed by the guideline development group and stakeholders.

4.6.2 Timing

The development of this guideline will begin in November 2013.
5 Related guidance

The guideline will update and replace the management of a child with a decreased conscious level guideline (2005).

There is currently a range of existing guidance 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.

- The epilepsies: the diagnosis and management of the epilepsies in adults and children in primary and secondary care (2012)

- Head injury (2007)

- Feverish illness in children - Assessment and initial management in children younger than 5 years (2007)

- Bacterial meningitis and meningococcal septicaemia (2010)

- Diagnosis and management of type I diabetes in children and young people (2009)

- Transient loss of consciousness (‘blackouts’) management in adults and young people (2010)

- Sedation for diagnostic and therapeutic procedures in children and young people (2010).

6 Further information

The guideline development process is described in the RCPCH standards for development of clinical guidelines in paediatrics and child health (2006).

7 References

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.