The management of children and young people with an acute decrease in conscious level

Summary of Recommendations

3.1 Assessment of airway and airway protection in children with a decreased conscious level

1. Consider intubating a child with decreased conscious level if they have a GCS less than 8 or are non-responsive to pain on the AVPU, unless the child is showing signs of improvement
   [2005; Evidence level 5; Recommendation grade D]

3.2 Assessment of breathing and oxygen requirements in children with a decreased conscious level

2. Treat a child with decreased conscious level with prescribed oxygen if their oxygen saturation is 95% or less
   [2015; Evidence level 1a; Recommendation grade B]

3.3 Assessment of capillary blood glucose in children with a decreased conscious level

3. Consider performing a capillary glucose test within 15 minutes of presentation in a child with a decreased conscious level
   [2015; Evidence level 5; Recommendation grade D]

4. Consider performing a hypoglycaemia screen if the capillary blood glucose level is below 3 mmol/L and then immediately correct the blood glucose level.
   [2015; Evidence level 5; Recommendation grade D]

   Note: for details of which investigations to perform as part of a hypoglycaemia screen refer to the British Inherited Metabolic Disease Group (BIMDG) Recurrent Hypoglycaemia Guideline6.

3.4 Observations to monitor and help manage children with a decreased conscious level

5. Consider recording the following observations in a child with a decreased conscious level at first clinical assessment:
   – heart rate
   – respiratory rate
6. Consider recording the following observations every hour in a child with a decreased conscious level:
   - heart rate
   - respiratory rate
   - oxygen saturation level
   - blood pressure
   - physical appearance/state
   - temperature
   [2015; Evidence level 5; Recommendation grade D]

7. Consider continuously monitoring the following observations in a child with a decreased conscious level:
   - oxygen saturation level
   - continuous cardiac monitoring (ECG leads)
   [2015; Evidence level 5; Recommendation grade D]

8. Consider assessing and recording conscious level at presentation using the Glasgow Coma Score/modified Glasgow Coma Score (GCS) or AVPU scale in a child who presents with a decreased conscious level
   [2015; Evidence level 5; Recommendation grade D]

9. Consider assessing and recording the Glasgow Coma Score/modified Glasgow Coma Score (GCS) every 15 minutes in a child with a decreased conscious level if GCS is equal to or less than 12 or level V on the AVPU scale
   [2015; Evidence level 5; Recommendation grade D]

10. Consider assessing and recording the GCS/modified GCS every 30 minutes initially in a child who presents with a decreased conscious level if GCS is greater than 12 or level V on the AVPU scale
    [2015; Evidence level 5; Recommendation grade D]

11. A decrease in GCS or AVPU score indicates the need for urgent medical review
    [2015; Evidence level 5; Recommendation grade D]

3.5 History of illness in children with a decreased conscious level

12. Consider recording the following features when a child presents with a decreased conscious level:
   - vomiting before or at presentation
   - headache before or at presentation
   - fever before or at presentation
   - convulsions before or at presentation
   - alternating periods of consciousness
   - trauma
   - ingestion of medications or recreational drugs
   - presence of any medications in the child’s home
   - any infant deaths in the family
13. Consider the possibility of non-accidental injury or safeguarding concerns when assessing a child with a decreased conscious level

[2005; Evidence Level 5, Recommendation grade D]

Note:
– For further information on alerting features see NICE’s When to Suspect Child Maltreatment Guideline
– For further information on the management of self-harm in young people refer to The Royal College of Psychiatrist’s Report - Managing Self Harm in Young People

3.6 Identifying the causes of a decreased conscious level in children

14. Consider the following causes of decreased conscious level in children and initiate treatment within the first hour after presentation:
– shock* (hypovolaemic, distributive and cardiogenic)
– sepsis*
– metabolic diseases*
– intracranial infection*
– raised intracranial pressure*
– convulsions*
– intoxication / poisoning*
– trauma+
– hypertension
– stroke
– acute hydrocephalus
– recovering from a previous convulsion (post-convulsion/“post-ictal” state)

[2015; Evidence level 5, *1b, +2b; Overall recommendation grade D]

3.7 Investigating the causes of a decreased conscious level in children

15. Consider investigating the cause of decreased consciousness in a child using the following tests at presentation:
– capillary blood glucose
– blood gas (venous, arterial or capillary pH, pCO₂, base excess, lactate)
– laboratory blood glucose
– urea and electrolytes (sodium, potassium and creatinine)
– plasma lactate
– liver function tests (aspartate transaminase or alanine transaminase, alkaline phosphatase, albumin or protein)
– plasma ammonia (taken from a venous or arterial sample)
– full blood count and film (haemoglobin, white cell count and differential, and platelet count)
– blood culture
– urinalysis (dipstick at bedside) for ketones, glucose, protein, nitrites and leucocytes
– 10ml of urine to be saved for later analysis (including urine toxicology)

[2015; Evidence level 5, Recommendation grade D]
16. Consider saving a plasma sample for future toxicology analysis if this need is suspected
   [2015; Evidence level 5, Recommendation grade D]

17. Consider implementing a technique for collecting urine for core investigations (e.g. urine bag, clean catch collecting device, catheter) as soon as the patient has had monitors attached
   [2005; Evidence level 5, Recommendation grade D]

3.8 Lumbar puncture and cranial imaging

18. Perform a lumbar puncture, when no acute contraindications exist, if the clinical working diagnosis is:
   – Viral encephalitis, including herpes simplex encephalitis
   – Tuberculous meningitis
   [2015; Evidence level 1b; Recommendation grade B]

19. Consider performing a lumbar puncture, when no acute contraindications exist, if the clinical working diagnosis is:
   – Sepsis / bacterial meningitis
   – Cause unknown
   [2015; Evidence level 5; Recommendation grade D]

20. Analyse cerebrospinal fluid initially for:
   – Microscopy
   – Glucose (compared to .....)
   – PCR for herpes simplex*
   [2015; Evidence level 2b, *1b; Recommendation grade B]

21. Consider analysing cerebrospinal fluid initially for:
   – Opening CSF pressure (if possible)
   – Gram staining
   – Culture and sensitivity
   – Protein
   – PCR for viruses other than herpes simplex
   – Mycobacterium tuberculosis when clinically suspected
   [2015 Evidence level 5; Recommendation grade D]

   **Note** - it is also good practice to take a sample to store for possible future investigations

22. Consider analysing cerebrospinal fluid culture for mycobacterium tuberculosis when clinically suspected
   [2015; Evidence level 5, Recommendation grade D]

23. Consider deferring or not performing a lumbar puncture as part of the initial acute management of decreased consciousness in a child who has:
   – signs of raised intracranial pressure (pupillary dilation (unilateral or bilateral), pupillary reaction to light impaired or lost, bradycardia (heart rate less than 60 beats per minute), hypertension (mean blood pressure above 95th centile for age), abnormal breathing pattern, abnormal posture)
   – a Glasgow coma score of less than or equal to 8
   – a deteriorating Glasgow coma score
   – focal neurological signs
   – had a convulsion (seizure) lasting more than 10 minutes and has a Glasgow coma score equal to or less than 12
24. Be aware, a normal CT scan does not exclude raised intracranial pressure and should not influence the decision to perform a lumbar puncture if other contraindications are present.

25. Be aware, the decision to perform a lumbar puncture in a child with a decreased conscious level should be made by an experienced paediatrician or consultant with paediatric experience who has examined the child.

26. Carry out an urgent cranial CT or MRI scan when the child is stable if the working diagnosis is raised intracranial pressure.

27. Consider carrying out an urgent CT or MRI scan when the child is stable if the working diagnosis is:
   - Intracranial abscess
   - Cause unknown

28. Consider performing a cranial MRI scan within 48 hours if possible, if not carried out at presentation, if the diagnosis is still uncertain.

Note: For information on cranial imaging and raised intracranial pressure refer to recommendations 69 -70

3.9 Managing the causes of decreased conscious level in children

29. Consider starting concurrent management strategies in children with a decreased conscious level to treat the potential different causes, whilst waiting for test results to confirm the most likely diagnosis.

3.10 Circulatory Shock – (3.10.1 Recognition)

30. Consider circulatory compromise and refer for further investigations if one or more of the following are present in a child with a decreased conscious level:
   - mottled, cool extremities
   - diminished peripheral pulses

31. Consider circulatory shock if one or more of the following are present:
   - Systolic blood pressure is less than 5th percentile for age
   - Decreased urine output less than 1ml/kg/hour
3.10 Circulatory Shock – (3.10.2 Diagnosis)

32. Consider looking for signs of the following, if shock is present in a child with a decreased conscious level:
   - sepsis
   - trauma (blood loss, tension pneumothorax, cardiac tamponade)
   - anaphylaxis (urticarial rash, wheeze, stridor, swollen lips/tongue)
   - heart failure (enlarged liver, peripheral oedema, distended neck veins, heart murmur
     [2015; Evidence level 5; Recommendation grade D]

33. Consider requesting core investigations to determine the cause of shock in a child with a decreased conscious level, because shock is not a diagnosis in itself.
   [2015; Evidence level 5; Recommendation grade D]

   Note: for a list of core investigations refer to recommendations 15-17

3.10 Circulatory Shock – (3.10.3 Treatment)

34. Administer a fluid bolus of 20ml per kg of isotonic fluid if shock is present in a child with decreased conscious level
   [2005; Evidence level 1b; Recommendation grade A]

35. Consider administering a fluid bolus of 10 ml/kg of isotonic fluid if shock is present in a child with ketoacidosis or signs of raised intracranial pressure and a decreased conscious level. Repeat the fluid bolus if necessary
   [2015; Evidence level 5; Recommendation grade D]

36. Consider assessing and monitoring the response to a fluid bolus, by looking for one or more of the following clinical signs:
   - a reduction in tachycardia
   - a reduction in prolonged capillary refill time
   - an improvement in the level of consciousness
   - an increase in blood pressure (to normal level for age)
   - a reduction in lactate concentration and/or improvement in base excess as measured by blood gas analysis
   - an increase in urine output
   [2015; Evidence level 5; Recommendation grade D]

37. Consider administering fluid boluses of up to and over 60ml per kg, as guided by clinical response
   [2015; Evidence level 5; Recommendation grade D]

38. Consider intubation and ventilation if more than 40 ml per kg of fluid bolus has been given, to prevent uncontrolled pulmonary oedema developing
   [2005; Evidence level 5; Recommendation grade D]

39. Start Drug treatment to support the circulation and refer to paediatric intensive care if more than 40ml per kg of fluid has been given with little clinical response
   [2015; Evidence level 1b diagnosis; Recommendation grade A]

40. Consider monitoring children on an intensive care or high dependency unit if they have been unresponsive to 40ml per kg of fluid
   [2005; Evidence level 5; Recommendation grade D]
3.11 Sepsis (3.11.1 – Recognition)

41. Sepsis should be suspected and treated in a child with a decreased conscious level if two or more of the following four are present:
   - a body temperature of greater than 38°C or less than 35.5°C
   - tachycardia
   - tachypnoea
   - a white cell count greater than $12 \times 10^9$/L or less than $4 \times 10^9$/L

   or if there is a non-blanching petechial or purpuric skin rash*

   [2015; Evidence level 2b, *1b; Recommendation overall grade C]

3.11 Sepsis (3.11.2 – Diagnosis)

42. Consider performing the core investigations in a child with a decreased conscious level and suspected sepsis as there could be another underlying cause

   [2005; Evidence level 5; Recommendation grade D]

43. Consider the following additional investigations in a child with a clinical diagnosis of sepsis and decreased conscious level:
   - chest X-Ray
   - urine culture if urinalysis positive for leucocytes and/or nitrites
   - blood polymerase chain reaction (PCR) for meningococcus and pneumococcus
   - coagulation studies if clotting abnormality suspected
   - skin swab if areas of inflammation are present
   - joint aspiration if signs of septic arthritis are present
   - a thick and thin film for malarial parasites if foreign travel to endemic area

   [2015; Evidence level 5; Recommendation grade D]

   Note: for a list of core investigations refer to recommendations 15-17

3.11 Sepsis (3.11.3 – Treatment)

44. Consider initiating broad spectrum antibiotics intravenously after appropriate cultures have been taken in a child with a decreased conscious level and suspected sepsis.

   [2005; Evidence level 5; Recommendation grade D]

45. Consider review by an experienced paediatrician within the first hour of presentation, for a child with a decreased conscious level and suspected sepsis

   [2005; Evidence level 5; Recommendation grade D]

46. Refer to the Surviving Sepsis Campaign Guideline\textsuperscript{35} and the Sepsis Six care pathway\textsuperscript{36} for ongoing treatment of sepsis

   [2015; Evidence level 5; Recommendation grade D]
3.12 Trauma

47. Record a child’s history for evidence of trauma in a child with decreased conscious level  
   [2005; Evidence level 5; Recommendation grade D]

48. Examine a child with decreased conscious level for evidence of trauma from a collapse and request the core  
   investigations to detect any underlying medical cause  
   [2005; Evidence level 5; Recommendation grade D]

49. Manage a child with a decreased conscious level and evidence of trauma according to Advanced Paediatric Life  
   Support and the NICE Head injury Guidelines  
   [2005; Evidence level 5; Recommendation grade D]

3.13 Metabolic illness (3.13.1 – Hypoglycaemia)

50. Consider requesting the following tests from the saved samples taken with the core investigations in a child with a  
    laboratory glucose of less than 3mmol/L and a decreased conscious level:  
    - plasma insulin  
    - plasma cortisol  
    - plasma growth hormone  
    - plasma free fatty acids  
    - plasma beta-hydroxybutyrate  
    - acyl-carnitine profile (on Guthrie card or from stored frozen plasma)  
    - urine organic acids  
    - plasma amino acids  
   [2015; Evidence level 5; Recommendation grade D]

   Note: for details of which investigations to perform as part of a hypoglycaemia screen refer to the British  
   Inherited Metabolic Disease Group (BIMDG) Recurrent Hypoglycaemia Guideline.

51. Consider administering an intravenous bolus of 2ml/kg of 10% dextrose in a child with hypoglycaemia  
   [2015; Evidence level 5; Recommendation grade D]

   Note: It is good practice to re-check the blood sugar after the IV administration of dextrose

52. Consider administering an infusion of 10% dextrose solution to maintain a child’s blood glucose between 4 and  
    7 mmol/L  
   [2015; Evidence level 5; Recommendation grade D]

53. Consider seeking urgent support from an endocrinologist and metabolic medicine physician to determine  
    subsequent management  
   [2015; Evidence level 5; Recommendation grade D]

3.13 Metabolic illness (3.13.3 – Hyperammonaemia)

54. Consider using a plasma ammonia threshold of >100micromol/l to define abnormal levels. If a plasma level of  
    >100micromol/l or higher is found discuss immediately with a metabolic expert.  
   [2015; Evidence level 5; Recommendation grade D]
Note: A plasma ammonia sample from a free-flowing venous (or arterial) sample should be taken immediately to the laboratory, who should be informed in advance of its pending arrival. If any delay longer that 10 minutes is expected before analysis, then the sample should be transported on ice. Samples that are not transported and analysed urgently are not interpretable.

3.14 Intracranial infections (3.14.1 – Bacterial meningitis, 3.14.1.1 Recognition)

55. Think about bacterial meningitis in children who present with one or more of the signs and symptoms detailed below:
   − Non-blanching rash
   − Stiff neck
   − Altered mental state / Unconsciousness
   − Shock
   − Back rigidity
   − Bulging fontanelle
   − Photophobia
   − Kerning’s sign
   − Brudzinski’s sign
   − Toxic/moribund state
   − Paresis
   − Focal neurological deficit including cranial nerve involvement and abnormal pupils sizes
   [2015; Evidence level 2b; Recommendation grade A]
   Note: For a more detailed list of non-specific symptoms please see the NICE guidance on Bacterial Meningitis and Meningococcal Septicaemia 28

3.14 Intracranial infections (3.14.1 – Bacterial meningitis, 3.14.1.2 - Diagnosis)

56. Consider carrying out the core investigations and a lumbar puncture in a child with a decreased conscious level and suspected bacterial meningitis, if no acute contraindications exist
   [2015; Evidence level 5; Recommendation grade D]
   Note:
   − For a list of core investigations refer to recommendations 15-17
   − For further information on the contraindications for performing a lumbar puncture refer to recommendation 23
   − For a list of which tests to perform on the CSF refer to recommendations 20-22, and the NICE guidance on Bacterial Meningitis and Meningococcal Septicaemia 28

3.14 Intracranial infections (3.14.1 – Bacterial meningitis, 3.14.1.3 - Treatment)

57. Treat a child with suspected bacterial meningitis according to the NICE bacterial meningitis and meningococcal septicaemia guidance 28
   [2005; Evidence level 5; Recommendation grade D]

58. Consider the possibility of viral encephalitis, including herpes simplex encephalitis (HSE), if a child with a decreased conscious level has one or more of the following:
   – focal neurological signs
   – fluctuating conscious level, for 6 hours or more
   – previous contact with herpetic lesions
   – a prolonged convulsion with no obvious precipitating cause
   – no obvious clinical signs pointing towards the cause
   [2015; Evidence level 5; Recommendation grade D]

3.14 Intracranial infections (3.14.2 – Viral Encephalitis, 3.14.2.2 – Diagnosis)

59. Confirm the clinical suspicion of herpes simplex encephalitis by a positive CSF PCR result for herpes simplex virus DNA
   [2015; Evidence level 1b; Recommendation grade A]

3.14 Intracranial infections (3.14.2 – Viral Encephalitis, 3.14.2.3 - Treatment)

60. If HSE is clinically suspected in a child with decreased conscious level, administer intravenous aciclovir (20mg/kg every 8 hours for children aged 1-3 months; 500 mg/m² three times a day if aged 3 months to 12 years; 10 mg/kg every 8 hours for children aged over 12 years). If a lumbar puncture is contraindicated, do not delay giving treatment
   [2015; Evidence level 1b; Recommendation grade A]

   Note – For further information refer to the most current version of the British National Formulary for Children (BNFC)¹⁰⁴

61. Decide the duration of treatment (usually up to 21 days) in consultation with local experts in paediatric infectious diseases and neurology, if herpes simplex encephalitis is confirmed or highly suspected
   [2015; Evidence level 5; Recommendation grade D]

   Note – For further information refer to the most current version of the British National Formulary for Children (BNFC)¹⁰⁴


62. Consider intracranial abscess in a child with a decreased conscious level if there are:
   – focal neurological signs +/- signs of sepsis
   – signs of raised intracranial pressure
   [2015; Evidence level 5; Recommendation grade D]

3.14 Intracranial infections (3.14.3 – Intracranial abcess, 3.14.3.2 - Diagnosis)

63. Consider using cranial imaging to diagnose an intracranial abscess
   [2015; Evidence level 5; Recommendation grade D]
3.14 Intracranial infections (3.14.3 – Intracranial abscess, 3.14.3.3 - Treatment)

64. Consider administering broad spectrum antibiotics after blood cultures have been taken, if an intracranial abscess is diagnosed in a child with a decreased conscious level, and obtain advice urgently from a paediatric neurosurgeon

[2015; Evidence level 5; Recommendation grade D]


65. Consider tuberculous meningitis in a child with decreased conscious level if:
   - there has been contact with a case of pulmonary tuberculosis
   - the CSF opening pressure is high, the CSF is cloudy or yellow, contains slightly increased cells (less than 500), which are lymphocytes, with a low or very low CSF/plasma glucose ratio (less than 0.3), and a high or very high protein (1-5g/L)

[2015; Evidence level 5; Recommendation grade D]

66. Treat a child with suspected tuberculous meningitis according to the NICE Tuberculosis guideline

[2015; Evidence level 5; Recommendation grade D]

3.14 Intracranial infections (3.14.4 – Tuberculous Meningitis, 3.14.4.2- Diagnosis)

67. Consider performing core investigations and a lumbar puncture for a child with a decreased conscious level and suspected tuberculous meningitis if no acute contraindications exist

[2005; Evidence level 5; Recommendation grade D]

Note:
- For a list of core investigations refer to recommendations 15-17
- For further information on the contraindications for performing a lumbar puncture refer to recommendation 23
- For a list of which tests to perform on the CSF refer to recommendations 20-22

3.15 Raised intracranial pressure (3.15.1 – Recognition)

68. Refer to the NICE Bacterial meningitis and meningococcal septicaemia Guideline for the recognition and management of raised intracranial pressure

[2015; Evidence level 5; Recommendation grade D]

3.15 Raised intracranial pressure (3.15.2 – Investigations)

69. Consider requesting core investigations, and request urgent cranial imaging for a child with a decreased conscious level and suspected raised intracranial pressure, after the child’s acute management has been discussed with paediatric intensive care

[2015; Evidence level 5; Recommendation grade D]

70. Consider reviewing the results of all the investigations performed, and consider further tests of the cause of the raised intracranial pressure if not diagnosed

[2005; Evidence level 5; Recommendation grade D]
3.15 Raised intracranial pressure (3.15.3 - Treatment)

71. Consider the following head positions to prevent coning in a child with raised intracranial pressure:
   - Position the patient’s head in the midline
   - Angle the patient’s head up at 20 degrees above the horizontal
   [2015; Evidence level 5; Recommendation grade D]

72. Whilst treating a child with a confirmed diagnosis of raised intracranial pressure:
   - Avoid inserting central venous lines in the neck
   - Maintenance fluids should not be hypotonic (maintenance fluids need to be agreed at a local level)
   [2015; Evidence level 5; Recommendation grade D]

73. Consider forming local level agreements about the decision to give mannitol or hypertonic saline and their doses.
   [2015; Evidence level 5; Recommendation grade D]

74. Consider sedation, intubation and ventilation to maintain the PaCO₂ between 4.5 and 5.0 kPa in a child with a clinical diagnosis of raised intracranial pressure, before imaging
   [2015; Evidence level 5; Recommendation grade D]

3.16 Hypertensive encephalopathy

75. Consider the following in a child with hypertension and a decreased conscious level:
   - signs of raised intracranial pressure
   - papilloedema
   and check a four limb blood pressure
   [2005; Evidence level 5; Recommendation grade D]

76. Consider reviewing the results of the core investigations, specifically the urinalysis for blood and protein, and the plasma levels of creatinine and urea, in a child with a decreased conscious level and suspected hypertensive encephalopathy.
   [2005; Evidence level 5; Recommendation grade D]

77. Consider seeking urgent help from a paediatric nephrologist or intensivist when presented with a child with hypertension and no other cause for decreased conscious level
   [2005; Evidence level 5; Recommendation grade D]

3.17 Prolonged convulsion

78. Consider treating a child with a convulsion lasting longer than 5 minutes
   [2015; Evidence level 5; Recommendation grade D]

79. Follow the APLS³² and NICE guidance¹⁰¹ to treat a child with a prolonged convulsion (i.e. lasting longer than 5 minutes)
   [2015; Evidence level 5; Recommendation grade D]

80. Consider performing core investigations at first clinical assessment in a child with a prolonged convulsion (i.e. lasting longer than 5 minutes) who is not known to have epilepsy
   [2015; Evidence level 5; Recommendation grade D]
81. Consider checking the plasma calcium and magnesium levels as well as the core investigations when a child under one year old presents with a prolonged convulsion (i.e. lasting longer than 5 minutes)
   [2015; Evidence level 5; Recommendation grade D]

82. Consider discussing treatment with a paediatric intensivist if a child has:
   – plasma sodium level less than 125 mmol/l
   – ionized calcium level less than 0.75 mmol/l or plasma calcium level less than 1.7 mmol/l
   – a plasma magnesium level less than 0.65 mmol/l
   and the convulsion is ongoing despite anticonvulsant treatment
   [2015; Evidence level 5; Recommendation grade D]

3.18 Post-convulsive state

83. Consider performing a detailed history and examination in a child during the first hour of the post-convulsive state
   [2005; Evidence Level 5; Recommendation grade D]

84. Consider observing a child with a normal capillary glucose and not performing any further tests during the first hour of the post-convulsive state
   [2005; Evidence Level 5; Recommendation grade D]

85. Consider reassessing a child following a convulsion if they have not awoken from the post-convulsive state within one hour
   [2005; Evidence Level 5; Recommendation grade D]

   Note: for further information on the assessment of airway and airway protection, and breathing and oxygen requirements refer to recommendations 1-2

86. Consider carrying out and recording the core investigations after the first hour of the post-convulsion state if the child has not recovered normal consciousness
   [2005; Evidence Level 5; Recommendation grade D]

3.19 Alcohol intoxication

87. Carry out a blood alcohol test in a child with a decreased conscious level with suspected alcohol intoxication
   [2015; Evidence level 3b; Recommendation grade C]

88. Consider following the ABCD system (as in APLS)\(^2\) and carry out the core investigations in a child with alcohol intoxication.
   [2005; Evidence level 5; Recommendation grade D]

89. Consider the need to treat the following in a child with a decreased conscious level and suspected alcohol intoxication:
   – Hypoglycaemia with intravenous (IV) glucose and maintenance dextrose/saline
   – Respiratory failure and or aspiration pneumonia
   – Hypotension
   – Other drugs ingested at the same time, e.g. opiates, or benzodiazepines, or paracetamol
And avoid emetics (in case of aspiration)
[2005; Evidence level 5; Recommendation grade D]

90. Consider identifying all likely substances or drugs that may be contributing to the child’s decreased conscious level and call your local regional poisons unit for advice
[2005; Evidence level 5; Recommendation grade D]

Note - For further information refer to The Royal College of Psychiatrist’s Practice standards for young people with substance misuse problems

3.20 Cause unclear

91. Consider performing additional tests in discussion with a specialist (e.g. neurologist or metabolic expert dependent upon clinical picture) after reviewing core investigations if the cause of decreased conscious level remains unknown. The additional tests are:
- CT or MRI scan
- lumbar puncture
- urine toxicology
- urine organic and plasma amino acid
- plasma lactate
[2015; Evidence level 5; Recommendation grade D]

92. Consider performing an electro-encephalogram (EEG) after reviewing core investigations, CT or MRI scan results or initial CSF results
[2015; Evidence level 5, Recommendation grade D]

Note: for further information on the contraindications for performing a lumbar puncture refer to recommendation 23

3.21 Good practice points

93. During resuscitation and initial management of a child with a decreased conscious level, the parents / carers should be allowed to stay with the child if they wish
[2005; Recommendation grade, Good practice point]

94. During resuscitation and initial management of a child with a decreased conscious level, the parents / carers should be kept informed of the possible underlying diagnoses and treatments required
[2005; Recommendation grade, Good practice point]

95. During resuscitation and initial management of a child with a decreased conscious level, the parents / carers should be kept informed of the possible prognosis of their child if it is known
[2005; Recommendation grade, Good practice point]