ICU DELIRIUM ALGORITHM

ICU Factors

Organic:
- Infection
- Pain
- ↓O₂ delivery
- Drugs
- Renal / liver dysfunction
- Hypoglycaemia
- Electrolyte imbalance

Psychological:
- Sensory deprivation
- Disorientation
- Sleep disturbance

Dementia or Reduced Cerebral Reserve

Reversible
- B12 / Folate ↓
- Vasculitis
- Hypothyroidism
- Tertiary syphilis
- HIV
- Chronic subdural
- Normal Pressure Hydrocephalus

Irreversible
- Alzheimers
- Dementia
- Vascular
- Dementia
- Lewy Body
- Dementia
- Jacob Creutzfeld Disease

ICU Factors from Family

MMSE

Hx from Family

Volumetric CT / MRI

EEG for CJD

CAM - ICU
Assessment of ICU Delirium

1) Is pain controlled:
Visual Analogue Score of pain from 1 - 10
Physiological criteria e.g. tachycardia, hypertension
*Can only proceed to step 2 if patients pain controlled*

2) Is patient over or under sedated:
   - Use Richmond Agitation Score:
     +4 Combative
     +3 Very Agitated
     +2 Agitated
     +1 Restless
     0 Alert and Calm
     -1 Drowsy
     -2 Light Sedation
     -3 Moderate Sedation
     -4 Deep Sedation
     -5 Unrousable
*Can only proceed to step 3 if patient is rousable and not deeply sedated*

3) ? ICU Delirium present
   - There are 3 steps:
     a) ? Acute onset of mental changes:
        Is patient any different from normal
        Has patient demonstrated a fluctuating GCS
        Has patient demonstrated a fluctuating level of alertness
     b) ? Evidence of inattention:
        Test by asking: ‘Squeeze my hand when you hear the letter ‘A’ in following list of letters:
        S A V E A H A A R T
     c) ? Evidence of disorganised thinking (or evidence of reduced GCS):
        Will a stone float on water?
        Are there elephants in the sea?
        Can you use a hammer to pound a nail?
        Does one pound weigh more than two pounds?

    If all 3 are present, then diagnosis of ICU Delirium is made

Mini Mental State Examination

(Score < 25/30 suggestive of dementia)

Orientation:
*What is the (year) (season) (date) (day) (month)?  Total 5
*Where are we: (country) (city) (part of city) (number of flat/house) (name of street)?  Total 5

Registration:
*Name three objects: one second to say each.
*Then ask the patient to name all three after you have said them.
*Give one point for each correct answer.
*Then repeat them until he learns all three.
*Count trials and record.  Total 3

Attention and calculation:
*Serial 7s: one point for each correct.
*Stop after five answers.
*Alternatively spell ‘world’ backwards.  Total 5

Recall:
*Ask for the three objects repeated above.
*Give one point for each correct.  Total 3

Language:
*Name a pencil and watch (two points).
*Repeat the following: ‘No ifs, ands or buts’ (one point).
*Follow a three-stage command: ‘Take a paper in your right hand, fold it in half and put it on the floor’ (three points)
*Read and obey the following: Close your eyes (one point).
*Write a sentence (one point).
*Copy a design (one point).  Total 9