Emergency Assessment of the Unconscious Patient

CONSCIOUSNESS: awareness of self and external stimuli.
Regulated by the Brainstem Reticular Formation, especially the Locus Coeruleus
- Obtundation: response only to stimulus
- Stupor: response only to PAINFUL stimulus

Massive list of differentials;...so what has put this person into a coma?
FIRST YOU LOOK FOR THE MOST EASILY REVERSIBLE CAUSES
Eg. something that you can answer with a big needle, like a tension pneumothorax or a heroin overdose.

The ABCs:
Is your patient HYPOXIC, HYPOVOLEMIC, HYPOTENSIVE?
Whatever else the problem may be, these are more serious.
i.e you cant be conscious if your blood is not circulating.

HISTORY:
- Age?
- Diabetes? Heart condition? Epilepsy?
- DRUGS?? Taken anything?
- Trauma? (ask for the mechanism of trauma)
- Rate of onset of coma (sudden collapse, or steady decline?) + was there a prodrome?
  - Even when its clearly drug-induced, there may also be a brain injury.

EXAM:

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<th>Glasgow Coma scale</th>
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<td>Eyes opening</td>
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<td>6</td>
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- PULSE
- BLOOD PRESSURE
- TEMPERATURE
- RESPIRATORY RATE AND PATTERN:
  - ATAXIC BREATHING has no pattern; = medulla lesion
  - CHEYNE-STOKES BREATHING shallow breathing, gets deeper, deeper, then shallows out again- indicates that injury is in brainstem or thalamus

PUPILS: size, reaction, symmetry.
- Tiny equal pupils: opiate overdose or Pons lesion
- Mid-size equal fixed unreactive pupils: Midbrain lesion
- Unequal pupils: !! CONING !! lesion is on the dilated side

While on the topic of the head, look for
- Crepitus of the facial bones or CSF RHINORRHOEA
- Raccoon Eyes (bilateral orbital haematomeae)
- “Battle Sign” – huge bruise at the mastoid process behind the jaw
- Haemotympanum

OK, now take some blood .... and do some SCANS:

| EUC - hyponatremia of sudden onset? | CT OF HEAD |
| FBC – so anaemic, or leucocytosis of sepsis | - The usual eg. blood where blood shouldnt be |
| LFT - hepatic encephalopathy? | - Diffuse Axonal Injury; petechiae on CT |
| COAGS – unexplanable intracranial bleed? | C-SPINE SERIES |
| BSL – hypo, or HONK, or ketoacidosis | |
| DRUG LEVELS eg. anticonvulsants | |