COMMON PITFALLS

Working in the Emergency Department is like walking through a minefield – you are never far from disaster! The same pitfalls catch unwary doctors again and again, *you must familiarise yourselves with these and be vigilant constantly.* To complete this section of the Handbook, this overview provides the key pointers that will reduce your chances of getting caught. Try to learn it by heart - it will be well worth the trouble!

- **A is for aortic aneurysms & ankle fractures**

Aortic aneurysm should be suspected in every patient over 50 with abdominal or back pain. It should be excluded asap in all elderly patients presenting with renal colic but no stone on KUB. If in doubt request urgent USS/ CT scan.

Ankles or feet must be x-rayed if an Ottawa Ankle Rule criterion applies. Always put new fractured ankles in non-weight-bearing split casts and refer bimalleolar fractures or those with talar shift to the RVH fracture clinic.

- **B is for bleeding into the abdomen after trauma**

Some patients can lose more than one third of their blood volume without obvious signs of bleeding. You must use ATLS principles to exclude abdominal bleeding after trauma.

- **C is for central disc protrusion and chest pain**

Patients with low back pain must have a full neurological examination of the lower limbs (including a rectal examination if there is doubt) and they must be questioned about bladder symptoms. If over 55 then consider ESR. Urgent neurosurgical consult +/- CT scan if NS signs. NEVER admit to ward.

Chest pain is a common presentation and if thought to be cardiac then the cardiac protocols must be followed to the letter. If problems with the advice given then the ED consultant on-call must be contacted.

- **D is for drunks with head injury, dislocated knee joints, diabetes, disease modifying agents**

Drunk patients may have serious head injury, may have myocardial infarction etc, etc. YOU MUST assess them as if they were sober…and don't measure serum alcohol!!

Dislocated knees (not patella) are associated with arterial damage. Even if reduced before arrival at hospital, you must discuss with fracture clinic RVH. Be wary of wounds and sepsis in patients with *diabetes*. X-ray all soft tissue infections for underlying osteomyelitis. Increasingly patients are on DMARDs for rheumatological conditions and inflammatory bowel disease. Beware of joint or spinal abscess as a cause of pain in this group.

- **E is for ectopic pregnancy**

Abdominal pain aged 15 to 50? Record LMP and do urine HCG. If clinical concern despite negative urine Bhcg perform serum sample.

- **F is for fractured neck of femur, fat pad signs & follow-up x-rays**

Fractured neck of femur can be a difficult diagnosis. Impacted fractures may not show up on the first x-ray – even radiologists miss them! It is important to advise and document the patient to re-attend if severe hip pain or difficulty in weight bearing persist for more than 48 hours. If they come back, always repeat the x-ray. Always scrutinise the pubic rami if there is no fracture in the NOF – missing fractures here is a very common error in these patients. Consider CT if they are very painful.

Fat pad signs may be the only clues to subtle fractures around the elbow joint. Look for them and treat with collar+cuff even if you can't find the fracture. Refer to review clinic day ten. An elbow that cannot straighten has a fracture. Treat symptomatically.

Follow up x-rays of all limb fractures should be done by day 10 at the latest. You MUST ensure that this happens by ensuring there is a follow up fracture clinic appointment is made.

- **G is for glass**

All patients with wounds caused by *glass* or by metal fragments MUST have an x-ray. Wood etc is not radio-opaque – seek senior opinion if embedded FB is suspected. Do not remove FBs unless clearly visible or easily palpable and superficial – refer to senior Emergency Department doctor. Once removed repeat the x-ray.

- **H is for hand and wrist lacerations & hyperventilation & head injuries on warfarin**

Hand & wrist lacerations carry a high risk of nerve, vascular and tendon injury. Examine and document meticulously. Advise patients to re-attend if any loss of sensation or movement. Use a tourniquet to examine prior to suturing so that you can explore the wound properly.

Hyperventilation is usually caused by a panic attack but there are other important causes e.g. aspirin OD, severe dehydration etc. and you must exclude DKA by checking BM.

Head injuries on warfarin warrant meticulous examination, an INR and a CT brain / observation.

- **I is for ischaemic feet and ischaemic bowel**

Patients who attend the ED with foot pain unrelated to injury have a surprisingly high incidence of peripheral vascular disease. All must have complete examination of lower limbs – ask about claudication. This also applies to patients who present with '?DVT'.

Consider ischaemic bowel in patients > 55 with abdominal pain out of keeping with clinical findings, especially if AF or IDH risk factors. Measure lactate and refer urgently to surgical team – this is an indication for an emergency laparotomy

- **J is for juvenile fractures**

Children's fractures can be hard to spot and upsetting to miss. Common pitfalls are buckle fracture distal radius, buckle fracture to the base of the proximal phalanx, supra-condylar fractures, fractured clavicle & spiral fracture of tibia (toddler's fracture – this can be invisible on first x-ray). Even if you cannot see the fracture on x-ray, treat on clinical suspicion with a split POP, strapping etc and arrange review at next review clinic. Be patient and look for bony tenderness or swelling (compare carefully with other side). Worry about high speed falls e.g. bike or roller blades. Parents don't mind excessive caution as a POP has low morbidity in this group.

- **K is for kids with sepsis, dehydration & UTIs**

Small children, disabled and children with learning difficulties can be hard to assess in an Emergency Department setting. They must have a full set of vital signs and a full medical examination, including ENT, unless presenting with a straightforward minor injury. Record "Well Child' or "Ill Child" and "Rash" or "No rash". Pyrexic kids should receive paracetamol or ibuprofen in Triage & make sure that their clothes have been taken off. Temp is regularly re-checked for response. All should have a urine test unless there is another obvious cause for the fever. Assess for dehydration clinically (fontanelle, tongue, wet nappies, listlessness, skin) and admit if dehydrated and unable to take a bottle of dioralyte in Emergency Department (all infants, less than 3 months, who cannot feed must be admitted).

- **L is for late-presenting paracetamol overdose**

Patients who present between 8-15 hours after *paracetamol OD* must have Parvolex erected within 10 minutes of arrival pending serum paracetamol level. Patients who present later are a very high risk group – erect parvolex, check plasma glucose + coag screen and admit (serum paracetamol is irrelevant at this stage)

- **M is for meningococcal disease & multiple rib fractures**

Meningococcal disease is a terrifying condition because it often presents as a straightforward minor illness but suddenly becomes fulminant later on. Look EVERYWHERE for a non-blanching rash. Remember that the MCD rash may begin as an 'ordinary' blanching rash. Don't ignore pallor, parental concern or listlessness. Remember that MCD-induced arthritis may present as minor injury! You can't admit every child with a temperature or a non-blanching rash but don't discharge a child who is still listless or irritable. Always explain GLASS TEST to parents when you are discharging a pyrexic child and always record this.

Multiple rib fractures imply significant trauma – admit patient if three+ fractures and do baseline blood gas.

- **N is for never miss a clinical scaphoid fracture**

Examine for this in every patient with a wrist injury (although is uncommon in young children). Look for fullness in the ASB, tenderness in the ASB, bony tenderness at the base of the thenar eminence or pain on pushing and pulling the thumb and 1st MC downward against the wrist). Treat in a split short arm plaster if any of these signs are positive and arrange review.

- **O is for ocular damage, osteoporosis and osteomyelitis**

Unlike corneal abrasions serious injuries such as corneal lacerations an *IOFB* can be PAINLESS. All eye patients must have visual acuity test, slit lamp examination, fluorescein stain and fundoscopy. X-ray orbits must be requested if any possibility of IOFB. Remember retinal detachment – refer to eyes at once if blunt trauma + any visual upset. Advise eye patients to re-attend immediately if any worse or after 48hours if not better. Don't prescribe topical steroids without an eye opinion.

Patients with *osteoporosis* are at an increased risk of fractures from minimal trauma. They may also have multiple fractures that are painless. A good physical examination and assessment in particular of pelvis, wrists and spine is required. A very high index of suspicion should be maintained. X-ay areas of bony tenderness.

Patients with Insulin dependant diabetes are at risk of *osteomyelitis* with soft tissue infection. Consider x-raying all soft tissue infections especially those associated with discharging ulcers or recurrence.

- **P is for tight or painful plaster of paris.**

Two risks here- Volkman's contracture and DVT. POP must be split immediately after triage and then removed and replaced with backslab if required. Request Doppler if ANY suspicion of DVT. Check x-ray may be required if pop changed. All POPs MUST be split. NEVER send somebody with a fresh fracture home in an unsplit cast.

- **R is for rings**

Remove all rings on fractured upper limbs due to swelling

- **S is for severe sepsis and septic shock, syncope in children**

Severe sepsis should be treated urgently with IV antibiotics and iv fluids and reassess for response. Please complete the sepsis pathway.

Exercise induced syncope is pathological until proven otherwise. All children with this complaint should receive a full set of observations ECg and screening bloods taken. **All must be referred to the paediatric team for further assessment prior to discharge**