PostScript

LETTERS

Pain relief in children: how good are we?

The literature suggests that the provision of pain relief in children is suboptimal despite guidelines from the British Association for Emergency Medicine.¹⁻³

In July 2003, we assessed the prescription of analgesia by senior house officers (SHOs) for children presenting with acute painful conditions to emergency departments (EDs). We contacted 50 conveniently chosen EDs within the UK and asked one SHO from each department to complete a telephone survey comprising four clinical scenarios for children with acute painful conditions, including a fractured femur, second degree burn, undisplaced greenstick fracture, and grossly deformed forearm. Eight of the departments contacted were in dedicated paediatric EDs.

HOs were asked to comment on the need for analgesia. If they recommended analgesia, they were asked which drug they would give and by which route. All 50 SHOs contacted completed the questionnaire; none were locums. SHOs recommended analgesia in a total of 182 responses out of a maximum of 200 (91%). The analgesic agent chosen was appropriate for 86% of responses, whilst the route of administration was appropriate for 73% of responses. In paediatric EDs 89% of SHOs chose an appropriate route for drug administration compared to 71% of SHOs working in general EDs.

Our study demonstrates that SHOs are able to recognise pain in children but that the drug chosen and the route by which it is given are often inconsistent and inappropriate. Without continuing educational initiatives children will continue to receive inadequate analgesia. We recommend specific SHO teaching during ED induction on the use of analgesia in the ED, in particular options available for pain relief in children including intranasal diamorphine and Entonox.

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Unconscious incompetence and the foundation years

One popular educational model suggests that trainees progress through the following

sequence of competencies, and awareness of those competencies:

1. Unconscious incompetence
2. Conscious incompetence
3. Conscious competence
4. Unconscious competence

In our experience this model does not fit with training in emergency medicine. An additional first step can be added to represent the new senior house officer (SHO): that of initial conscious incompetence. We find that new SHOs are acutely aware of how little they know about many of the conditions they will see in the emergency department. Typically, as they grow in confidence, they progress through to unconscious incompetence, usually by about the 3rd or 4th month. Frequently something will happen to help them progress to the next step, conscious incompetence, through which they may or may not pass by the end of their 6-month attachment. The two states of conscious incompetence are distinguished by improvements in knowledge and skills. Worryingly, proposals for foundation year 2 will result in many SHOs spending only 4 months working within our speciality. This could result in trainees leaving us in a state of unconscious incompetence.

Senior consultants may be interested to read that we have further developed our five-stage model. Most registrars and younger consultants reside happily in a state of conscious or unconscious competence. We are finding the issue of deskilling a significant concern. We anticipate adaptation. The full eight stage model looks like this:

1. Initial conscious incompetence
2. Unconscious incompetence
3. Conscious incompetence
4. Conscious competence
5. Unconscious competence
6. Conscious incompetence (intolerant of self)
7. Conscious incompetence (tolerant of self)
8. Conscious of incompetence in others, and intolerant

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Myocardial infarction in a 21-year-old healthy man on rapid ascent

Exposure to high altitude without acclimatisation can result in acute mountain sickness. Although increased angina and arrhythmia have been reported in coronary patients with acute elevation, moderate elevation up to 2500-3500 m does not pose a hazard for a

patient with stable coronary artery disease and good exercise tolerance.^{1,2} However, we treated a young, healthy man who experienced myocardial infarction from ascending rapidly to this height.

This 21-year-old man has a non-contributory medical history. He drove to an altitude of 3275 m from sea level within 3 h, and then climbed a neighbouring mountain 3421 m high. He had intractable chest pain that night. He descended the next day to visit our emergency department. On arrival, his vital signs and physical examination were unremarkable. Pathological Q waves were found in inferior leads and cardiac enzymes were raised (CK-MB/CK: 93.8/919 IU/L, troponin-I: 14.689 ng/ml). Other blood tests were normal. Mild hypokinesia of the inferior wall but preserved left-ventricle functions were shown by echocardiography and ventriculography. Coronary arteriography (CAG) disclosed a dominant right coronary artery (RCA). Although a 70-80% eccentric stenosis was found initially at the proximal RCA, it never recurred when a smaller-sized catheter was changed. No anatomical abnormality was found by CAG.

Barometric pressure and temperature fall with increasing altitude. Arterial oxygen tension and oxyhaemoglobin decrease, pulmonary artery pressure increases, and the sympathetic system is activated.³ The myocardium is stressed from increased oxygen demand and decreased supply. Although various kinds of mountain sickness have been discussed, to our knowledge, acute myocardial infarction in such a young, healthy person at this altitude has not been discussed. Cardiac attach, in addition to acute mountain sickness, should never be forgotten for urban vacationers who can easily reach high altitudes in a short time, with the convenient transportation.

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Extreme sports—ignore the safety advice at your peril

Extreme sports are more popular and more accessible to adrenaline junkies than ever.