Transient unconsciousness: trivial or terminal?

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Emergencies can spring up at any time and in many incarnations. Are you adequately equipped to deal with them? Each month we present a case study in emergency medicine based on real cases and events. Would you have been able to help this patient?

You have fond memories of going to the snow with your family when you were a child. The getting there was as much an adventure as the skiing and the living in a small community in the snow. So when one day, while you are working as a GP in the local emergency department, the boss asks if anyone can fill a gap in the roster of doctors at the ski resort you used to visit, you jump at the opportunity, even though it is at short notice. That was a couple of years ago – you seemed to have passed the test as you now get invited back each year, and your emergency department experience seems ideal for it.

The ski resort is small and family orientated, and your family gets free accommodation. While you have to do some work, the surgery is not busy apart from during the school holidays. You are given a two-way radio and told you need to be able to respond when the ski patrol brings someone into the surgery. There are two clinics daily, morning and afternoon, and both visitors and staff see you. This part is just like any general practice – lots of colds, infections and sprains, and the occasional seriously ill patient, including those with infarcts and pneumonia. Occasionally, you have to trudge through the snow to do house calls, sometimes at night, but most lodgers greet you warmly and help you sort out the febrile child, for example.

On the whole, you are greatly appreciated by the village, and soon a lot of people say 'Hi, doc!'.

In from the slopes

The ski patrol guys are really helpful, know what they are doing and only pull you off the slopes for a good reason. It is late afternoon when they call you to attend the surgery as they are bringing in an unconscious patient from the slopes. You acknowledge the call and become a bit concerned. You are alone – not in an emergency department – and by this time of day the large ski resort surgery with x-ray facilities several miles away over the snow will be closing. The nearest district public hospital is hours away.

You have one ace, your wife is also a doctor. Another pair of hands to help with phone calls and the like, as well as hands-on procedures, is invaluable when you (and the patient) are in trouble. You radio base and ask them to get your wife from the flat, where she is happily reading a book, to the surgery.

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Primary survey of major trauma

The aim of the primary survey is to detect and treat immediate life-threatening injury. Assessment and management occur simultaneously. The priorities of the primary survey are:

1. Airway maintenance with cervical spine protection
2. Breathing and oxygenation
3. Circulation and control of external haemorrhage
4. Degree of consciousness – an assessment of the pupils and level of consciousness
5. Exposure

The care of the trauma patient is a dynamic process and constant reassessment of the ABCs of resuscitation should occur during all phases of patient management.

Source: Manning R, Grove P. Initial assessment and management of major trauma. In: Fulde GWO, ed. Emergency medicine: the principles of practice. 3rd ed. Sydney: MacLennan & Petty, 1998: 96.

You realise you are doing what you have learned in the emergency department: you assemble your resources and start thinking of your primary survey (see the box on page 99). You consider what you will do if the case is a head trauma or something like a fit or a hypoglycaemic episode.

Your skiing to the surgery lacks any style but you are totally alert on arrival. The 'banana boat' has just arrived with the patient strapped in.

The story from the head patroller is of a ski instructor who, on finishing a class, had gone over a ski jump and disappeared from view. After a little while the class found her unconscious, face down in the snow. No one had actually seen what happened.

Kneeling next to the patient you check that the cervical collar is adequately in place, as you have had drilled into you that up to 5% of patients with head injuries have broken necks.

An uncommunicative patient

Luck is with you because now the patient is moving and starting to talk. But luck is fickle.

The patient is from Japan and speaks very little English. You are not able to get any answers to your basic questions about what happened or where it hurts, let alone basic medical data such as history of diabetes, allergies and so on. All the patient keeps saying with determined repetition is 'I am OK'. She wants to get up and seems very embarrassed by all the attention and unaware of her accident. By this time a couple of her friends and a room-mate have arrived. You all agree that, notwithstanding the language problem, she is disorientated and not making any real sense.

With many hands and tons of reassurance from her colleagues, she is carried into the surgery and put on the examination couch. Once again, all that time spent with difficult and stroppy patients in the emergency department pays off. Your mind is already thinking of intracranial lesions while you examine the patient. Your wife gets some basic observations, which are normal.

It is still impossible to get any meaningful data. Even with her face scoured by grazes – presumably from the ice – she does not admit to any pain or tenderness.

You go into what you call veterinary medicine mode. You mechanically examine the patient from head to toe, paying special attention to the cranial orifices – looking for signs of a fractured skull, such as haemotympanum. Along with the rest of the secondary survey, you prod the whole patient, front and back, looking for visual cues of tenderness or elicited discomfort. It appears there are no obvious injuries apart from the abrasions on the face and head. The patient seems to be able to move everything.

All this takes time. You have cleared the small but well equipped surgery to just a small group of people, all of whom you have given specific tasks. A crowd has been forming.

Much to your shame you do not succeed in inserting an intravenous line. The patient will not let you and, being a small oriental person, she has tiny veins that are difficult to find. Her Glasgow coma scale has improved from 12 to 14. She still does not want to comply with any of the requests for her welfare.

By this time it is truly dark and a couple of hours have elapsed. You still cannot properly assess the patient, who is still not really making sense.

Transfer to hospital

Having been conditioned to think worst case scenario (those medicolegal stories and reports make you even more cautious), you decide to transfer the patient to hospital despite her protests. You realise you are totally lost if the patient deteriorates (how you miss that 24-hour CT scanner at the city emergency department). The patient should have neurological observations at least overnight.

Sheepishly and apologetically, you make phone calls to the ambulance and receiving hospital. A helicopter will be used to transport the patient because that is the most practical way. Several phone discussions take place to other people to inform and confirm. To your surprise, even the receiving hospital is really nice and helpful, especially given that the case may turn out to be a non-event clinically.

You write the letter, friends get bits and pieces together for the patient, and you work with the head ski patroller to create a safe helipad area with lights and people around the perimeter to keep onlookers at bay.

You prepare the patient for the journey before the helicopter arrives. The resort has not had a helicopter in before, and you and many others are surprised by the blizzard caused by it landing. The paramedics on board take over quickly. They check everything and fly off with the patient.

You return to the surgery to finish your detailed paperwork. Then you go off to dinner and a glass of wine with your wife. You are a bit exhausted.

A clinical non-event

Next morning you ring the hospital to ask after your patient and are told a couple of times that she does not exist, even when you speak to the nurse in charge of the emergency department and say the patient was brought in by helicopter last night. You know hospitals, so you insist on speaking to the duty registrar. She immediately knows of the patient and gives you a quick report: they observed her closely and decided not to scan her head because she continued to improve and developed no signs.

You confirm with the hospital that the mountain staff driving down to visit the patient can bring her home that day.

You do not think the patient ever appreciated all the fuss and effort – but you know you made the right decision. MT