Who should transfer children with an acute neurosurgical emergency?

Should local anaesthetic teams be responsible for transfer of children with an acute neurosurgical emergency to a neurosurgical unit, or should specialized paediatric teams retrieve?

There is significant morbidity, and even mortality associated with transport of critically ill patients (Ridley at al, 1989). Guidelines have been produced to promote safe standards for transport of ventilated patients (Intensive Care Society, 1996; Paediatric Intensive Care Society, 1997). Transfer of the critically ill paediatric patient provides an additional challenge, and paediatric retrieval teams have evolved to provide specialist skills in stabilization and transport of the critically ill child. So is it still appropriate that local anaesthetic teams transport a child with an acute neurosurgical emergency?

The local anaesthetic team should be responsible

If the accepting neurosurgical team has decided, based on clinical information and computed tomography (CT) head scan findings, that there is an acute neurosurgical emergency, then any time delay to surgical intervention risks continued raised intracranial pressure, impaired cerebral perfusion and coning. The paediatric retrieval team may recommend that the anaesthetic team transport the child as this may be quicker than retrieval. Time factors involved for the retrieval team include deployment from base, journey to referral hospital, clinical handover and monitoring change over.

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If the retrieval team recommends this course of action then the local anaesthetic team has a responsibility to transport the child. The Royal College of Anaesthetists makes specific provision for such cases (Royal College of Anaesthetists, 2004). The guidelines state that there must be a designated consultant with responsibility for such transfers, and it is accepted that in some circumstances local anaesthetic teams may be required to transfer an intubated and ventilated child. They also state that functioning monitors, transfer equipment, drugs and relevant guidelines must be available.

The guidelines state that the child should be accompanied by a doctor with 2 years' postregistration experience and relevant experience in paediatric life support. It is at the discretion of the local anaesthetic team to decide who will be the most appropriate escort from within the anaesthetic team. It is also mentioned that a multidisciplinary approach is extremely important, so it would seem wise to take advice from the local paediatric team, accepting neurosurgical team and the paediatric retrieval team, who will be able to provide telephone advice and support.

Paediatric retrieval teams should be responsible

Stabilization and transport of the paediatric intensive care patient is a specialist field. The use of specialist retrieval teams may reduce complications and morbidity during transfer. Over recent years paediatric retrieval teams have increased in number and as a result local teams may have become deskilled in the stabilization and transport of the critically ill child. There is understandable concern among some anaesthetists that they do not possess the skills or knowledge required to escort the child safely. However, a study by Ramnarayan et al (2003) found this not to be true.

Conclusions

In the case of the acute neurosurgical emergency, prompt transfer may be of the utmost importance. If the neurosurgical unit and paediatric retrieval team advise the local anaesthetic team to transfer the child based on previous transport time data, then it is the responsibility of the local anaesthetic team to do so.

The clinician with the most experience in management of the critically ill, ventilated child must escort the child, and it may be worthwhile involving personnel from both the anaesthetic and paediatric teams.

Local hospitals must develop protocols for safe paediatric transport and the use of checklists may reduce errors.

Good quality data on transport times should be encouraged and further study regarding morbidity during transport of the paediatric acute neurosurgical case are needed. BJHM

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