



POSNA

The Core Curriculum

The multiply injured child: Other systems

Objectives

1. Discuss the optimum initial management of the multiply injured child
2. Describe the demographics of children most at risk for injury

Discussion points

1. Describe step by step the immediate evaluation of the multiply injured child. At what point does the orthopaedist assume a role?
2. What factor(s) contribute to the long-term outcome of the multiply injured child. What role does the orthopaedist have in managing these factors?

Discussion

The development of trauma centers over the last 20 years has [Maio, 2000 #9] been responsible for an increase in the quality of trauma care. It is apparent that the pediatric patient has also been a beneficiary; as care in adult trauma units has compared favorably with that rendered in pediatric units. The principles of airway control, bleeding control, and correction of hypovolemia are universal regardless of age. Maintenance of adequate circulation is mandatory to prevent secondary brain ischemia, which is an important contributor to long-term morbidity. Visceral trauma is managed by the pediatric (or general surgeon), with an increasing tendency toward nonoperative management, especially in the younger child. It is only at this point that fracture management steps forward. Of course, circulatory compromise to a limb reorders the usual priorities.

A number of trauma grading scales are presently in use. The Glasgow Coma Scale has been used to assess the level of consciousness necessary to clinically evaluate for cervical spine injury. Other trauma scales have been evaluated, and are predictive of mortality, but are not particularly relevant to the primary interest of the orthopaedist, long term outcome. It is anticipated that future efforts will be made toward development of evaluative scales for residual disability. Craniocerebral injury is the major factor affecting both morbidity and long term outcome.

Both in North America and Europe, socioeconomic status has been found to be related to the risk of serious injury for children. Alcohol is also involved in a considerable number of injuries sustained by adolescents. These factors are societal, but the orthopaedist should be aware of their importance.

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