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A Clinical Practice Guideline for the Management of Patients With Acute Spinal Cord Injury: Recommendations on the Role of Baseline Magnetic Resonance Imaging in Clinical Decision Making and Outcome Prediction

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Abstract Introduction The objective of this guideline is to outline the role of magnetic resonance imaging (MRI) in clinical decision making and outcome prediction in patients with traumatic spinal cord injury (SCI). **Methods** A systematic review of the literature was conducted to address key questions related to the use of MRI in patients with traumatic SCI. This review focused on longitudinal studies that controlled for baseline neurologic status. A multidisciplinary Guideline Development Group (GDG) used this information, their clinical expertise, and patient input to develop recommendations on the use of MRI for SCI patients. Based on GRADE (Grading of Recommendation, Assessment, Development and Evaluation), a strong recommendation is worded as "we recommend," whereas a weaker recommendation is indicated by "we suggest." **Results** Based on the limited available evidence and the clinical expertise of the GDG, our recommendations were: (1) "We suggest that MRI be performed in adult patients with acute SCI prior to surgical intervention, when feasible, to facilitate improved clinical decision - making" (quality of evidence, very low) and (2) "We suggest that MRI should be performed in adult patients in the acute period following SCI, before or after surgical intervention, to improve prediction of neurologic outcome" (quality of evidence, low). **Conclusions** These guidelines should be implemented into clinical practice to improve outcomes and prognostication for patients with SCI.