GLOBAL EMERGENCY MEDICAL REGISTRY

Spinal Immobilization ALS Case (IMMO Protocol for Spinal Injury #1) Documentation Form

Candidate (Print): _____ Date: _____

Examiner (Instructor Name Printed): _____

Examiner Signature: _____

Note: The 90 kg patient was the seat belted driver of a motor vehicle that was hit by another vehicle perpendicular on patient's passenger side. The patient has GCS of 11, he has extensive trauma to the left head and the window and door frame have impact marks from the patient's head with fixed and midline pupils and no other apparent trauma on exam. The Examiner will use or modify a simulator trauma case to reflect Sinus at 80 with a MAP of 105 mmHg, SpO2: 92%, EtCO2: 55 mmHg, RR: 6-10, Temp: 37 C. The examiner may conclude the case following proper care by having the patient's vital signs returning toward stable range.

PASS _____ Fail _____

Task	Correct	Incorrect
Utilizes ABCDE Assessment (Airway, Breathing, Circulation, Disability, and Exposure)		
Assures manual inline stabilization		
Assures proper oxygenation of the patient while assessing		
Utilizes IMMO Protocol for Spinal Injury to identify the patient should be Immobilized in the Backup Head Elevated position without cervical collar.		
Obtains Endotracheal Intubation with medications and ventilates patient 10-20 bpm with 6-8 ml/kg PBW.		
Establishes large bore IV above the level of the diaphragm		
Consider Mannitol or Hypertonic Saline administration		
Reassess patient after each intervention and a minimum of every two minutes		

Note: any "incorrect" represents a skill failure

Critical Failure Criteria

	Failure to establish oxygenation and airway for the patient
	Failure to take appropriate medication and/or fluid bolus intervention
	Failure to utilize the IMMO Protocol for Spinal Injury correctly
	Failure to manage the patient as a competent provider
	Exhibits unacceptable affect with patient or other personnel
	Uses or orders a dangerous or inappropriate intervention

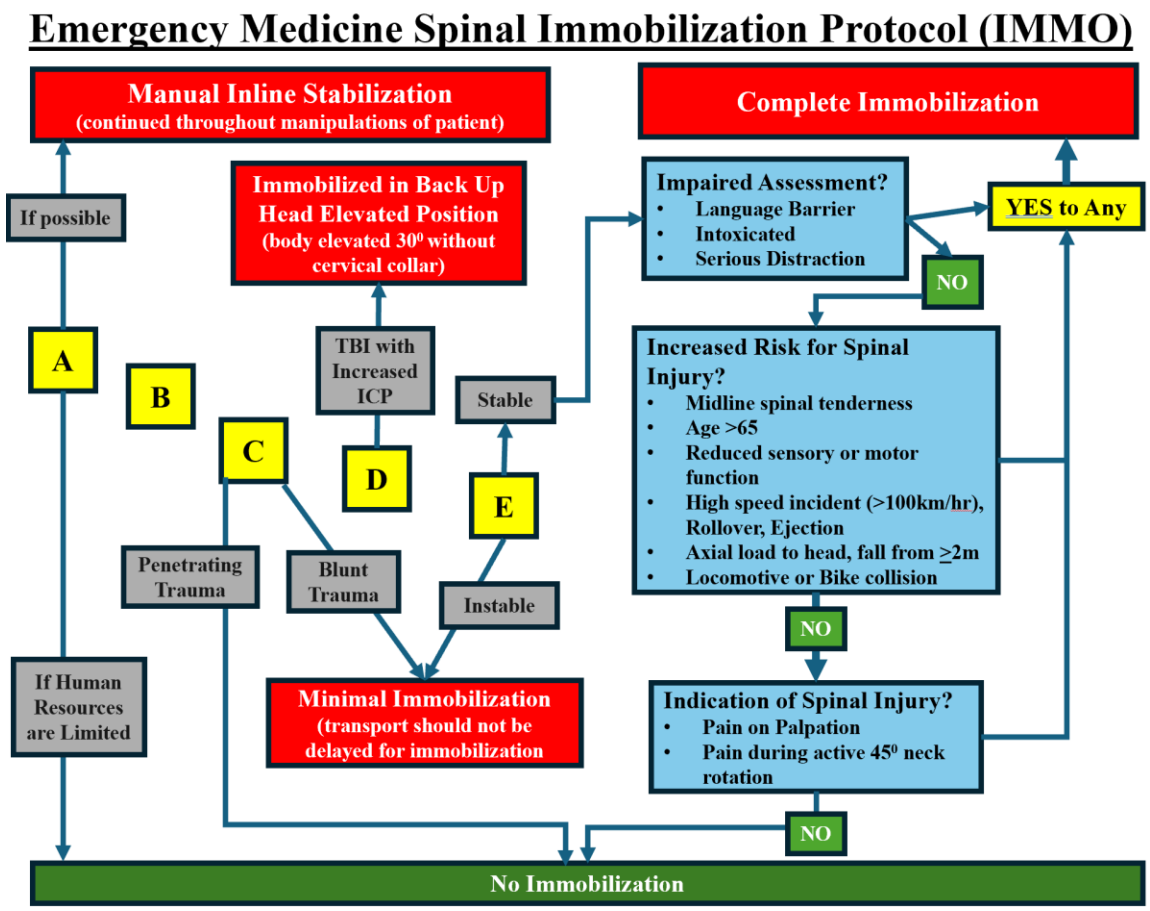
NOTE: You must factually document any "incorrect" or critical failure criteria on the bottom or back of this form.

The IMMO Protocol for Spinal Injury

By Michael Christie (copyright 2024)

The IMMO protocol, formally known as the Emergency Medicine Spinal Immobilization Protocol (E.M.S. IMMO Protocol), represents a significant advancement in the management of spinal injuries, particularly in emergency settings. This protocol has been developed to provide a structured decision-making framework for the immobilization of trauma patients, addressing the complexities associated with different types of injuries and patient conditions.

The IMMO protocol is particularly noteworthy for its adaptability to various clinical scenarios. Kreinest et al. emphasize that the protocol not only aids in determining whether spinal immobilization is necessary but also differentiates between various immobilization techniques. This is crucial for patients with severe craniocerebral trauma, where traditional cervical collars may exacerbate intracranial pressure, thus necessitating alternative immobilization strategies (Kreinest et al., 2016). The protocol's design reflects a comprehensive understanding of the mechanisms of injury, which is essential for effective emergency care.



In pediatric populations, the IMMO protocol has also been tailored to meet the unique needs of younger trauma patients. Nolte et al. conducted a structured literature review to develop a pediatric-specific version of the protocol, ensuring that it is grounded in current scientific evidence. Their study highlights the importance of adapting immobilization strategies to the anatomical and physiological differences in children compared to adults (Nolte et al., 2020). This tailored approach is vital for improving outcomes in pediatric trauma cases, where inappropriate immobilization can lead to complications.

Furthermore, the recommendations from the WFNS Spine Committee reinforce the importance of early and effective management of cervical spine trauma, aligning with the principles established in the IMMO protocol. The committee's guidelines support the need for a systematic approach to spinal immobilization, which is echoed in the findings of Zılelı et al., who discuss the applicability of the IMMO protocol in adult trauma patients (Zılelı et al., 2020). This consistency across various studies underscores the protocol's robustness and its potential to enhance patient care in emergency medical services.

In conclusion, the IMMO protocol represents a critical development in the field of emergency medicine, providing a comprehensive framework for spinal immobilization that is adaptable to both adult and pediatric patients. Its evidence-based approach ensures that emergency care providers can make informed decisions that optimize patient outcomes while minimizing the risks associated with spinal injuries.

References:

Kreinest, M., Gliwitzky, B., Schüler, S., Grützner, P., & Münzberg, M. (2016). Development of a new emergency medicine spinal immobilization protocol for trauma patients and a test of applicability by german emergency care providers. Scandinavian Journal of Trauma Resuscitation and Emergency Medicine, 24(1). https://doi.org/10.1186/s13049-016-0267-7

Nolte, P., Liao, S., Kuch, M., Grützner, P., Münzberg, M., & Kreinest, M. (2020). Development of a new emergency medicine spinal immobilization protocol for pediatric trauma patients and first applicability test on emergency medicine personnel. Pediatric Emergency Care, 38(1), e75-e84. https://doi.org/10.1097/pec.0000000000002151

Zılelı, M., Osorio-Fonseca, E., Konovalov, N., Cardenas-Jalabe, C., Kaprovoy, S., Mlyavykh, S., … & Pogosyan, A. (2020). Early management of cervical spine trauma: wfns spine committee recommendations. Neurospine, 17(4), 710-722. https://doi.org/10.14245/ns.2040282.141