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	Recommendation on Early Removal of Spinal Board	Review Date	20/09/2026
		Page	1 of 5

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		Page	2 of 5

Disclaimer


The content of this recommendation is based on the best available information at the time this recommendation was issued. The information provided in this recommendation is for guidance and reference only. Users are responsible for making their own professional judgment and keeping up-to-date evidence in practice to ensure patient safety when providing patient care.

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Table of Contents


	Page
1. Background	3
2. Objective	4
3. Scope	4
4. Recommendation	4
5. References	5

 <small>醫院管理局 HOSPITAL AUTHORITY</small>	Hospital Authority Head Office	Document No.	HAHO-CC-GL-TMS-001-V1
		Issue Date	20/09/2023
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		Page	3 of 5

RECOMMENDATION ON REMOVAL OF SPINAL BOARD

1. Background

- 1.1 Spinal board (SB) is used to facilitate extrication and transfer trauma patient from the injury scene to hospitals¹⁻⁵. In Hong Kong, SB is usually applied by ambulance crew for patient with suspected spinal cord injury.
- 1.2 However, SB is an uncomfortable device and pressure areas are generated on patient's body at the interface between the occiput, thoracic kyphosis and scapulae. It can cause respiratory compromise, pain and pressure injury²⁻¹⁰. It also affects physical exam and results in unnecessary radiographs³⁻⁴. The iatrogenic complications of prolonged patient immobilization on SB were reported²⁻⁸.
- 1.3 The Joint Position Statement of the American College of Surgeons Committee on Trauma, American College of Emergency Physicians, and the National Association of EMS Physicians¹¹, Emergency Nurses' Association¹² recommended that patients should be carefully and quickly removed from a long backboard/ scoop stretcher as soon as possible after hospital arrival. Sufficient number of properly trained healthcare professionals and slide board should be in place to assist with safe patient transfers and to maintain spinal motion restriction (SMR). Study demonstrated there was no increase in disabling spinal cord injuries after a shift from a spinal immobilization protocol to a SMR protocol¹³. Besides, there is no role for spinal board in penetrating trauma^{2,3}.
- 1.4 The ambulance cot, hospital stretcher and hospital bed with firm mattress can provide spinal protection¹². The mattress can conform to the anatomic shape of the spine and its non-slick surface can minimize patient movement on the bed¹⁴. It is safe to place a trauma patient with spinal injury on ambulance cot, hospital stretcher or hospital bed.

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	Recommendation on Early Removal of Spinal Board	Review Date	20/09/2026
		Page	4 of 5

2. Objective

The objective of this recommendation is to shorten the time of trauma patient being immobilized on SB so as to minimize pain, discomfort, potential risks and complications due to the hard SB.

3. Scope


All nursing and medical staff who participate in caring of trauma patients.

4. Recommendation

- 4.1 Patient should be transferred to stretcher with firm surface upon hospital arrival.
- 4.2 The SB (or scoop stretcher) is recommended to be removed as soon as the primary survey has been completed (e.g. during logroll) or once patient is stabilized.
- 4.3 Ensure adequate number of trained personnel to maintain patient's whole spine in neutral position for logrolling and bed transfer.
- 4.4 Keep appropriately-sized cervical collar and logroll maneuver until spinal assessment is completed by physician.
- 4.5 After removal of SB, slide pad or similar device should be used to facilitate SMR during bed transfer.
- 4.6 The SB is highly recommended to be removed before leaving A&E. For complicated cases, the SB could be removed upon arrival to definitive treatment area.

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		Issue Date	20/09/2023
	Recommendation on Early Removal of Spinal Board	Review Date	20/09/2026
		Page	5 of 5

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