

## Improving Final Year Medical Students' Self-Reported Knowledge And Skills In Managing Silver Trauma: A Simulation-Based Approach

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**Abstract :** Background: Falls from standing height (<2m) are the most common mechanism of trauma in elderly patients. These patients can be challenging to manage in and outside of hospital. Summary of work: To improve knowledge and confidence in managing these patients, a falls simulation and two workshops were created and delivered to final year medical students. In each session, one student performed a simulated post-fall assessment whilst peers and instructors observed and provided feedback during a debrief. The simulated patient had several issues to address including potential c-spine injury. During debrief, key management points in Silver Trauma were addressed. These included assessment of c-spine, catastrophic haemorrhage (with consideration of anticoagulation reversal) and indications for a CT trauma series. Subsequently, two workshops were delivered: one on core ATLS principles and another on C-spine immobilisation (manual and with collar/blocks). Students were then able to practice triple immobilisation and manual-inline-stabilisation on one another to consolidate learning. Summary of results: From pre-session and post-session surveys, results showed a 54.5% increase in students' correct responses to identifying potential haemorrhage sites (with the prompt 'blood on the floor and four more') (20.5% vs. 75%, N=39 pre session, N=32 post session). Self-reported confidence in performing post-fall assessments, using Canadian c-spine rules, deciding when to order a trauma CT scan, and immobilizing the c-spine with and without equipment all improved. Notably, confidence in c-spine immobilisation with equipment increased from 23.1% to 100%. Discussion and conclusion: As identified in the pre-course survey, there is a lack of teaching for undergraduate medical students on silver trauma. Simulation and workshops improved knowledge and confidence. A similar approach could be considered at other institutions. Take away messages: Silver trauma is a common presentation in and outside of hospital. Confidence in assessing trauma patients is low amongst resident doctors. Silver trauma simulation and workshops improved knowledge and confidence across the cohort.

**Keywords :** silver trauma, education, simulation, undergraduates

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