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LETTER

Log-rolling a blunt major trauma patient is inappropriate in the primary survey

The article by Gill *et al*¹ provides further evidence that a log-roll is not useful for major trauma patients in the primary survey. Even with a GCS 15 and no influence from alcohol or opiates only 60% of patients with thoracolumbar fractures had tenderness on log-roll. The authors did not examine how many false negatives were found by examination or the impact of a distracting injury.

Log-rolling a polytrauma patient in the primary survey is potentially life-threatening if the patient has a site of internal haemorrhage as this movement may lead to clot disruption and irretrievable exsanguination. The log-roll causes pain in the presence of injury and provokes anxiety, which may worsen the patient's physiological state. For blunt trauma, there is no evidence that injuries

missed by inspection of the back will lead to the patient's demise (although all penetrating trauma will require examination of the back for occult wounds). Studies have also shown that the log-roll may induce spinal movement, which may be damaging in the presence of fractures.^{2,3}

As clinicians at the three adult major trauma centres in the West Midlands we advocate no log-roll during the primary survey for a blunt trauma patient with a mechanism of injury triggering a local major trauma triage tool. The patient should instead be transferred supine using a suitable device, such as an orthopaedic scoop stretcher onto a vacuum mattress or Wolverson transfer mattress. While clinical examination in the primary survey is important, an immediate CT (from head to pelvis under the supervision of the trauma team) can rapidly and reliably exclude life-threatening injuries without examination of the back.

When a senior decision has been made that the patient does not require a CT scan (or a CT scan has been reported as showing no internal haemorrhage, visceral injury or pelvic fracture) it is then appropriate to log-roll the patient to assess the back for further injury.

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