In this month’s EMJ and associated Commentary we address the hotly debated topic of sepsis guidelines in the Emergency Department. Clinicians are under significant pressure to identify abnormal physiology and initiate treatment within 1 hour of arrival. However in Sabir and colleagues paper, the triggers for scoring systems result in inclusion of elderly patients who have chronic disease, end of life conditions, or those who would not be appropriate for escalation of care due to poor functional status. The authors highlight that future guidelines should consider these factors alongside physiological scoring systems. Another retrospective study by Mendoza et al, found that the use of specific physiological parameters to predict inhospital mortality or ICU admission depended on the site of infection, and different vital signs or lactate may not be effectively used across all patients with suspected sepsis. As the commentary describes, in Emergency Medicine we must consider the balance of following blunt protocols with doing what is right for the patient in front of us.

This month’s Covid-19 retrospectively assessed the accuracy of five risk-stratification tools to predict adverse outcome in adult patients with COVID-19 infection presenting to one UK ambulance service. The ideal tool would improve identification of patients at risk of deterioration without leading to a disproportionate increase in conveyance to hospital. The limitations of the data are that non-conveyance may be due to patient refusal or best interest decision-making at the end of life. The authors present the diagnostic accuracy statistics for each tool and highlight an important point: that adding clinical judgement to the triage tool performance may also be useful for future studies.

E-scooters offer a convenient way to commute or explore cities and as their use becomes more popular, medical professionals concern around the lack of safety regulations also increases. This month’s Reader’s Choice describes a prospective observational study of 248 e-scooter incidents attending four Emergency Departments in Berlin, Germany over a 6 month period in 2019. 57% of the cases involved losing control or balance, 41% involved tourists and only 1% of surveyed patients were wearing a helmet. Of note, a quarter of patients required hospital admission and 23% required surgery which predominantly involved limb injury. The authors suggest regulations around age and alcohol limits, helmet use, and preventing technical modifications of e-scooters to increase speed. The role of monitoring the healthcare impact from e-scooters will be essential to understand how best to implement future policies for this increasingly popular transport mode.

The expert practice review in this issue is a comprehensive overview of the emergency management of older people with cervical spine injuries. The authors identify the higher risk of injury and the complexity of decision-making for cervical spine clearance: the Canadian C spine rule advises imaging in all patients aged >65 years and the NEXUS criteria may miss injury in older patients. In addition, unnecessary immobilisation and delays waiting for imaging may cause harm. In another article, Gallet and colleagues from the University of Iowa publish retrospective data from their local trauma registry to identify 2312 patients over 65 years with ground-level falls over a 5 year period. 64% patients underwent cervical spine imaging and of those, 17% of patients had a cervical spine injury. The study found that midline tenderness, focal neurological deficit, or signs of trauma to the head or face were predictive of a cervical spine injury; the latter being an important new finding. While we are on the topic of spinal clearance, you can also read the article by Delaney and colleagues that found in younger non-trauma patients, over half had reproducible midline cervical spine tenderness which was unrelated to their attendance and would give a false positive for the current spinal clearance guidelines. All of these papers suggest important considerations when considering future prospective studies to develop new clinical guidelines.

What influences your decision to insert a chest drain for a traumatic pneumothorax? For me, it probably depends on the size of pneumothorax on imaging, presence of surgical emphysema, need for positive pressure ventilation, respiratory distress, and pre-existing anticoagulant use. In 2020, a survey was undertaken of 222 respondents who work in Emergency Departments of five countries to see how likely they would be to insert a chest drain in six different trauma case scenario’s. The results found a diverse range of clinical practice and confirm that a future randomised clinical trial will be helpful to better define practice. The cases and imaging can be found in the online supplemental material if you would like to test yourself.

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