sustained. EOLC discussions did not show any definite improvement.

Frailty is a clinically important entity that is recognisable and accurately measurable by emergency physicians. If appropriately used, the CFS can help guide clinical care plans for patients.

Simple interventions in a local ED setting were able to improve documentation and utilisation of the CFS to provide patient-centred care for older patients.

Changing to a culture more open to EOLC discussions in the emergency setting was noted to be difficult both from our staff survey and audit data. This will need a more focused approach to improve departmental culture to have, and staff comfort to start an EOLC conversation.

We will continue to advocate for use of CFS, and for better care for all our older patients.

**033 DIAGNOSTIC INVESTIGATION AND PREDICTION OF SHOCK (DIPS), IN THE EMERGENCY DEPARTMENT: A PROSPECTIVE OBSERVATIONAL STUDY**

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**Background**

Currently there exists no widely accepted, objective tool for determining the probability of shock in the emergency department (ED). Associated mortality outcomes remain unacceptably high. Using variables that are associated with shock and available in the ED we aimed to derive an objective tool for estimating the probability of shock.

**Methods**

In a prospective, longitudinal study conducted in the ED, Cardiff, adult patients aged ≥18 years, presenting with NEWS ≥3 were recruited. We derived a model consisting of 8 variables, and validated it using bootstrap (1000 iterations; random number seed: 978). The primary outcome was combined 30-day mortality or ICU admission.

**Results**

361 patients were recruited (mean age 69.4 ±15.9 years; male 62.7%; 80 positive outcome) to the study. The multivariate model variables were: Glasgow Coma Scale 3–8 (Odds ratio (OR) 9.1 (95% CI 1.2–69.4) p=0.0324), 9–12 (OR 1.3 (95% CI 0.4–4.2) p=0.6561); capillary return >4 (OR 8.7, (95% CI 2.9–26.1) p=0.0001), 3–4 (OR 3.7 (95% CI 1.3–10.4); p=0.0113); temperature ≤35°C (OR 5.4, (95% CI 1.8–16.3); p=0.0045); bilirubin >34 (OR 4.9, (95% CI 1.6–14.5); p=0.0045); oxygen supplement (OR 1.9, (95% CI 1.0–3.7); p=0.06); respiratory rate >24 (OR 2.6, (95% CI 1.3–5.1); p=0.0069); and albumin <35 (OR 1.9, (95% CI 0.9–3.8); p=0.09).

The model was a 100-point scale where 0 was low probability and 100 was maximal probability of shock. The AUC was 0.801 (95% CI 0.756–0.841), accuracy 82%, p<0.0001, Hosmer & Lemeshow test 9.19 (p=0.326). At a cut off ≥35, and Youden Index 0.4557 the sensitivity and specificity were 56.2% (95% CI 44.7–67.3) and 89.3% (95% CI 85.1–92.7) respectively. At a fixed specificity of 80%, the estimated sensitivity was 60.5% (95% CI 49.4–71.3). At a fixed sensitivity of 80%, the estimated specificity was 62.3% (95% CI 45.9–71.2).

**Conclusions**

An accurate 7-point ED tool for shock has been derived and internally validated.

**034 EARLY CARDIOVASCULAR DYSFUNCTION DRIVES IN-HOSPITAL TRAUMA MORTALITY**

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**Background**

Improvements in trauma resuscitation practice have reduced the early in-hospital mortality from haemorrhage and its immediate sequelae. Early cardiovascular dysfunction (CVD) is a poorly understood and under-recognised major contributor to contemporary trauma deaths. The objective of this study was to demonstrate the prevalence and impact of CVD in a population of trauma patients without catastrophic TBI.

A review of data collected prospectively at a UK Major Trauma Centre from 2008–2018. Adult trauma patients over the age of 15 were included. CVD was defined as a score of 4 on admission or day 1 of admission using the cardiovascular component of the SOFA score.