

Abstract 1404 Figure 1

Results and Conclusion 745 patients were enrolled (median age 64 [50;78], male/female ratio 1:4, median Charlson comorbidity index 2 [1;4], median STUMBL score 11 [6;17]). 65.2% of patients were discharged home after ED evaluation. 203 patients (27.2%) developed the primary outcome. The STUMBL score was significantly different in patients with complications compared to those without complications (9 [5;13] vs 21 [17;25], $p < 0.001$). The C index of the score for the primary outcome was 0.9 (95% CI 0.88 – 0.93) (figure 1), and the result of the Hosmer-Lemeshow test was 9.01 ($p = 0.34$). STUMBL score = 16 had a negative predictive value of 0.92. In conclusion, this validation study demonstrated that the STUMBL score had excellent discrimination and calibration in predicting the outcome of patients attending the ED with a BTT.

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ABSTRACT WITHDRAWN

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THE DIFFERENTIAL DETERMINANTS OF DELIVERING PREHOSPITAL EMERGENCY ANAESTHESIA WITHIN 45-MINUTES OF THE 999-CALL – A MULTI-CENTRE, RETROSPECTIVE OBSERVATIONAL STUDY

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10.1136/emered-2022-RCEM2.24

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WHAT INFLUENCES DECISIONS AND PREDICTS TRANSFER OF OLDER CARE-HOME RESIDENTS TO THE EMERGENCY DEPARTMENT? A SYNTHESIS OF QUALITATIVE REVIEWS AND SYSTEMATIC REVIEW

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10.1136/emered-2022-RCEM2.25

Aims, Objectives and Background The proportion of adults aged over 65 is rapidly increasing in developed countries. Care home residents have disproportionate rates of transfer to the ED. An estimated 40% of emergency admissions for care home residents may be for avoidable conditions and up to 8-fold variation in hospitalisations has been identified between care homes

We aimed to synthesise the qualitative research collated in existing reviews relating to the experience of residents, family members and professionals in decisions to transfer care home residents to the ED and identify known factors which predict ED transfer from care homes.

Aims, Objectives and Background Prehospital emergency anaesthesia (PHEA) is a necessary intervention for a significant proportion of severely injured trauma patients. The National Institute for Health and Care Excellence (NICE) trauma quality standards include delivery of prehospital emergency anaesthesia (PHEA), where indicated, ≤ 45 -minutes of the 999-call. The aim of this study was to report the differential determinants of meeting this standard in a large regional cohort of trauma patients.

Method and Design A consecutive sample of adult trauma patients undergoing PHEA (2015–2020) at three Helicopter Emergency Medical Services (HEMS) in the East of England. The primary outcome was PHEA ≤ 45 -minutes of 999-call; defined as duration between call 'pick-up' and administration of anaesthetic drugs. Data were extracted from all three HEMS electronic medical records (HEMSbase, MediOne Systems), and combined. Variables included: dispatch type (immediate, interrogate, crew-request), demographics, time of day (day/night), PHEA indication, pre-PHEA physiology.

A purposeful selection logistic regression model was used in R (a language and environment for statistical computing). Each variable was first tested in turn to explore the unadjusted association with the outcome. Significant variables were then included in the multivariable analysis. Variables were successively eliminated until only statistically significant variables remained. This was a service evaluation study (EAAA 2021/025).

Results and Conclusion 1,155 adult trauma patients were included in the analysis. The primary outcome, PHEA ≤ 45 -minute of 999-call, was achieved in $n = 196$ (17.0%) of cases. The data model is under construction. However, there is signal that non-immediate dispatch type, older age, and night-time operations are all associated with a reduced likelihood of delivering PHEA ≤ 45 -minutes of the 999-call.

Less than one in five trauma patients receive PHEA ≤ 45 -minutes of the 999-call in the East of England. Results from this project may positively influence dispatch systems in order to increase the timely delivery of prehospital anaesthesia where indicated (pending the complete data model).

Method and Design Two systematic reviews were conducted simultaneously. The first identified and synthesised the qualitative evidence presented in existing systematic reviews regarding decisions to transfer residents to the ED. The second identified quantitative factors found to affect likelihood of transfer of residents. Five electronic databases were searched, including: MEDLINE, EMBASE, CINAHL, PsychINFO, Web of Science and Scopus.

Results and Conclusion In the qualitative component, six previous reviews met the inclusion criteria. Three syntheses were formed : (i) Transfer decisions involve negotiation with unequal power dynamics between residents, family members, care home staff and clinical practitioners (ii) Some transfers occur with the expectation that treatment in hospital will improve outcomes (iii) Some transfers occur due to factors external to the resident with no expectation that hospitalisation will be beneficial.

Twenty-six primary studies met the inclusion criteria for the quantitative component. Seven common domains of factors associated with ED transfer were identified: demographics, comorbidities, medication use, frailty, permanent indwelling devices, advanced directives and care home organisation. Within these domains, male sex, age, presence of specific comorbidities, polypharmacy and quality rating were associated with ED transfer across studies.

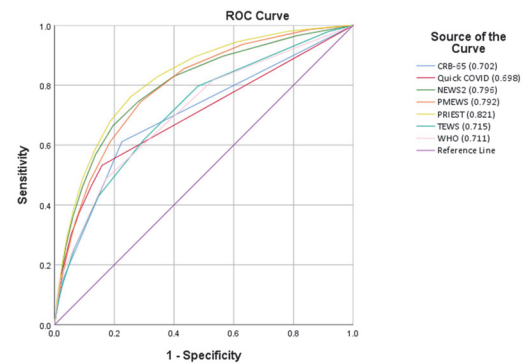
This provides context for policy makers and researchers developing interventions to reduce hospitalisations or use adjusted rates of hospitalisations as a care home quality indicator.

provision mean that emergency health care systems may still be at risk of being overwhelmed during periods of increased COVID-19 infection. Risk stratification tools proposed to allow rapid triage of need for admission in ED settings have almost exclusively been developed and validated in high-income settings during early waves of the pandemic.

Our study aimed to estimate the accuracy of risk-stratification tools recommended to predict severe illness in adults with suspected COVID-19 infection in the Western Cape of South Africa.

Method and Design An observational cohort study using routinely electronically collected clinical information in all state-run hospitals in the Western Cape between 27th August 2020 and 11th March 2022 was conducted to assess performance of the PRIEST tool, NEWS2, the WHO algorithm, CRB-65, TEWS, Quick Covid Severity Index and PMEWS in patients with suspected COVID-19. The primary outcome was death, respiratory support or ICU admission.

Results and Conclusion Of the 446,084 patients, 15,397 patients (3.45%, 95% CI:34% to 35.1%) experienced the primary outcome. Figure 1 presents the ROC curves for the triage tools for the total study period and figure 2 for the



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PROGNOSTIC ACCURACY OF TRIAGE TOOLS FOR ADULTS WITH SUSPECTED COVID-19 IN A MIDDLE-INCOME SETTING

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10.1136/emered-2022-RCM2.26

Aims, Objectives and Background Uneven vaccination in low- and middle-income settings and less resilient health care

Abstract 1482 Figure 1 Performance of tools predicting composite primary outcome for total study period

Abstract 1482 Table 1 Triage tool diagnostic accuracy statistics (95% CI) for predicting any adverse outcome (entire study period)

Tool	N*	C-statistic	Threshold	N (%) above threshold	Sensitivity	Specificity	PPV	NPV
CRB-65	432,584	0.70 (0.70, 0.71)	>0	102,964 (23.8%)	0.61 (0.61, 0.61)	0.78 (0.77, 0.78)	0.09 (0.09, 0.09)	0.98 (0.98, 0.98)
NEWS2	433,101	0.80 (0.79, 0.80)	>1	178835 (41.3%)	0.83 (0.83, 0.83)	0.6 (0.6,0.6)	0.07 (0.07–0.07)	0.99 (0.99, 0.99)
PMEWS	438,810	0.79 (0.79, 0.79)	>2	199,386 (45.4%)	0.85 (0.85, 0.85)	0.56 (0.56, 0.56)	0.06 (0.06, 0.07)	0.99 (0.99,0.99)
PRIEST	438,880	0.82 (0.82, 0.82)	>4	158,893 (36.2%)	0.83 (0.83, 0.83)	0.65 (0.65,0.66)	0.08 (0.08, 0.08)	0.99 (0.99, 0.99)
WHO	437,850	0.71 (0.71, 0.72)	>0	235,775 (53.8%)	0.82 (0.81, 0.82)	0.47 (0.47, 0.47)	0.05 (0.05, 0.05)	0.99 (0.99, 0.99)
TEWS	432,612	0.72 (0.71, 0.72)	>2	134,097 (31%)	0.62 (0.62, 0.62)	0.70 (0.70, 0.70)	0.07 (0.07, 0.07)	0.98 (0.98, 0.98)
Quick COVID	446,088	0.70 (0.69, 0.70)	>3	35,145 (7.9%)	0.33 (0.33, 0.33)	0.93 (0.93, 0.93)	0.14 (0.14, 0.14)	0.98 (0.98, 0.98)

*Patients with <3 parameters were excluded from analysis when estimating performance