SO&D 15: Exploring the performance of the Amb Score in selecting appropriate patients for ambulatory emergency care units in a large city tertiary referral centre


Aim

Ambulatory emergency care units facilitate admissions avoidance(1). Their optimum functioning relies on appropriate selection of patients. The Amb score(2) is a single-centre validated tool designed to aid and standardise identification of suitable patients.

We aim to:

• Determining whether our current patient selection model(consultant “pull”) meets the published Amb criteria.
• Analyse individual elements of the Amb score and their relevance in a large city teaching hospital.

Methods

Retrospective data from 126 unique patient attendances to Acute Assessment Unit at St Thomas’ Hospital was obtained via consecutive convenience sampling, including predictor variables from the Amb Score (Table 1), with published cut-points.

A multivariate logistic regression model to predict outcome of discharge within 12 hours was produced. Area under the Receiver Operator Characteristic Curve(AUC) from predicted probabilities and model diagnostics were performed using SPSSSTM V22 .

Results

Within our cohort, 20.6% scored between the recommended 4-5 (Sensitivity 94.7%, Specificity 15.4% in our dataset), 82.5% ≥5 and 3.17% scored ≤4.

Prevalence of Amb score variables by discharge status are displayed in table 1. Only “IV treatment not anticipated by referring doctor” is significant on bivariate analysis and multivariate logistic regression of all predictor variables (Odds Ratios 10.163, 95%CI 2.432-42.478).

Diagnostic performance of the Amb score as a whole (Table 2) produced a 99.1% sensitivity and 7.7% specificity. AUC suggests overall predictive power is moderate (0.774; 95%CI 0.676-0.872) for this setting. The optimum cut-point for our cohort was 6 (sensitivity 77% and specificity 76.9%).

Conclusion

The sensitivity of the amb score would suggest it an appropriate rule out test however specificity was lower than published.

Differences may be accounted for by our current selection process, our smaller dataset and contextual factors(published data was from a rural Welsh hospital where case-mix, access to transport and availability of community services differs). Local calibration and validation is important

References
