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# THE CLINICAL IMPACT OF ROCKALL AND GLASGOW-BLATCHFORD SCORES IN NONVARICEAL UPPER GASTROINTESTINAL BLEEDING

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## INTRODUCTION

Risk stratification in patients with nonvariceal upper gastrointestinal bleeding (NVUGIB) is crucial for proper management. Rockall score (RS, pre-endoscopic and complete) and Glasgow-Blatchford score (GBS) are some of the most used scoring systems.

This study aims to analyze these scores' ability to predict various clinical outcomes and possible cut-off points to identify low and high-risk patients. Secondly, this study intends to evaluate the appropriateness of patients' transfers to our facility, which provides a specialized emergency endoscopy service.

## AIMS AND METHODS

This study was retrospectively conducted at Centro Hospitalar Universitário do Porto (CHUP) and included patients admitted in the emergency department with acute manifestations of NVUGIB between January 2016 and December 2018. Receiver operating characteristic (ROC) curves and corresponding areas under the curve (AUC) were calculated. Transferred and non-transferred patients were also compared.

## RESULTS

Of a total of 420 patients, 23 (5.9%) died, 34 (8.4%) rebled, 217 (51.7%) received blood transfusion, 153 (36.3%) received endoscopic therapy, 22 (5.7%) had surgery and 171 (42.3%) required hospitalization in the Intermediate or Intensive Care Unit (IMCU/ICU). Regarding mortality prediction, both complete RS (AUC 0.756,  $p < 0.001$ ) and pre endoscopic RS (AUC 0.711,  $p = 0.001$ ) showed good performance. In the prediction of rebleeding, only complete RS (AUC 0.735,  $p < 0.001$ ) had discriminative ability. GBS had good performance in the prediction of transfusion (AUC 0.785,  $p < 0.001$ ). No score showed discriminative capability in the prediction of other outcomes. Transferred and non-transferred patients had similar pre-endoscopic RS (3.41 versus 3.34,  $p = 0.692$ ) and GBS (13.29 versus 12.29,  $p = 0.056$ ). Only patients with GBS  $\geq 6$  were transferred to our facility. There were no adverse outcomes recorded in any group when GBS  $\leq 3$ .

## CONCLUSIONS

Complete RS and pre-endoscopic RS are effective at predicting mortality, but only complete RS showed good performance at predicting rebleeding. GBS is better at predicting transfusion. Our study suggests that a transfer can be possibly reconsidered if GBS is 3 or less, although current recommendations only propose outpatient care when GBS is 0 or 1. Patient's transfers were appropriate, considering the high GBS scores and the outcomes of these patients.

