

models are good prognostic tools for predicting the post-operative 30-day mortality in COVID-19 patients. qSOFA, a simple, clinical, objective tool, also has an prognostic value.

## ABSTRACT NO.: ABS3159

### Utility of prognostic scores in prediction of mortality after emergency surgery in COVID-19 patients – A prospective observational cohort study

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**Background and Aims:** Pre-operative prognostic scoring in emergency surgeries is important for informed consent and optimum resource allocation. The accuracy of pre-operative prognostic scores in patients with coronavirus disease (COVID-19) has not been studied. This study aimed to evaluate prognostic scoring tools in COVID-19 patients.

**Methods:** A prospective, observational cohort study was conducted in adults with confirmed COVID-19 infection within 7 weeks before or 1 week after emergency surgery. (1) Demographic data, prognostic risk scores [American Association of Anaesthesiologists Physical Classification (ASA), sequential organ failure assessment (SOFA), quick SOFA (qSOFA), Physiologic and Operative Severity Score for enUmeration of Mortality and Morbidity (POSSUM), and Portsmouth POSSUM (P-POSSUM) scores], and surgical and anaesthetic factors were noted along with morbidity and 30-day mortality. The correlation of prognostic scores and mortality was evaluated using univariate Cox proportional hazards regression, receiver operating characteristic curves (ROCs), Youden's index, and the Hosmer–Lemeshow goodness-of-fit model.

**Results:** Sixty-seven COVID-19 patients underwent emergency surgery during the study period. The overall mortality was 19%, with the highest in gastro-intestinal/general surgery and sinus surgery. Positive qSOFA and ASA 3E/4E were associated with 9.03 and 12.7 times higher mortality risk, respectively. Each unit increase of SOFA-, POSSUM-, and P-POSSUM-predicted mortality scores led to 50%, 7%, and 6% higher mortality. SOFA, POSSUM, and P-POSSUM area under the curve–ROC curves showed good discrimination between survivors and non-survivors (AUC 0.8829, 0.85, and 0.86, respectively).

**Conclusion:** The overall mortality was comparable to the published literature. (2) SOFA, POSSUM, and P-POSSUM

## References

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