A Novel Hospital Capacity Versus Clinical Justification Triage Score (CCTS) for Prioritization of Spinal Surgeries in the “New Normal State" of the COVID-19 Pandemic

G Liu, JH Tan, HWD Hey, LL Lau, J Thambiah, N Kumar, J Tan, J Ruiz, HK Wong

Introduction: During the Coronavirus disease 2019 outbreak, while healthcare systems and hospitals are diverting their resources to combat the pandemic, patients who require spinal surgeries continue to accumulate. The aim of this study is to describe a novel hospital capacity versus clinical justification triage score (CCTS) to prioritize patients who requires surgery during the “new normal state” of the COVID-19 pandemic.

Methodology: A consensus study using the Delphi technique was carried out among clinicians from the Orthopaedic Surgery, Neurosurgery and Anaesthesia departments. 3 rounds of consensus were carried out via survey and Webinar discussions.

Results: A 50-points score system consisting of 4 domains with 4 subdomains and 49 differentiating subdomain was formed. The CCTS were categorised into the hospital capacity domain, patient factors domain, disease severity domain and surgery complexity domain. A score between 30 and 50 points indicated that the surgery is of high priority, and the proposed operation should proceed without delay. A score of less than 20 indicates that the surgery is not urgent but of an elective nature with high hospital resource utilization, and the proposed operation should be postponed. A score between 20 and 29 indicates that the surgery falls within a grey area where further discussion should be undertaken to make a joint justification for approval of surgery.

Conclusion: This study is a proof of concept for the novel CCTS scoring system to prioritize surgeries to meet the rapidly changing demands of COVID-19 pandemic. It offers a simple and objective method to stratify patients who require surgery and allows these complex and difficult decisions to be unbiased and made transparently among surgeons and hospital administrators.