

**0553 DEVELOPMENT OF A STANDARDISED EVALUATION GRID FOR TRAUMA CENTER ACCREDITATION PROCESS**

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Regionalised and integrated trauma systems are effective in reducing mortality. Following initial designation of 59 trauma centres in the province of Quebec, Canada, each centre was evaluated in situ twice over a period of 10 years by an external panel of experts according to American College of Surgeons criteria.

**Problem** Reports do not reflect a systematic approach as they are focusing on major strengths and flaws. This hinders their usefulness in measuring performance.

**Objective** Test the reliability and validity of a standardised evaluation grid.

**Methods** A retrospective review of 115 accreditation reports (three were missing) on 59 designated trauma centres was

performed. A systematic grid containing 84 elements grouped under three themes (commitment, program and procedures) was applied to all reports by a single reviewer to calculate performance scores. Two analyses were performed: (1) a random sample of 12 reports was duplicated to measure intra-rater agreement, and (2) content validity was assessed by comparing median scores of the 115 reports by accreditation results (accreditation positive, revisit required and designation postponement).

**Results** The scoring system demonstrated excellent intra-rater agreement as 76 of the 84 elements showed strong or close to perfect agreement (weighted  $\kappa > 0.60$ ). Median scores decreased significantly when a revisit was requested or postponement of accreditation occurred (Spearman's  $\rho = -0.71$ ,  $p < 0.0001$ ).

**Conclusion** A more systematic approach is required for trauma centre accreditation site visits. An evaluation grid may help by providing a more reliable and valid assessment of their performance.