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A Simple Predictor of Post-operative Complications after Open Surgical Adhesiolysis for Small Bowel Obstruction

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ABSTRACT

Background: Small bowel obstruction is common and often requires surgical management. Simple preoperative models are lacking to predict post-operative complications after surgical management of adhesive small bowel obstruction.

Methods: We retrospectively analyzed data from 15,036 patients who underwent open lysis of adhesions for small bowel obstruction from 2005 to 2013 using the American College of Surgeons (ACS) National Surgical Quality Improvement Program (NSQIP) database. Predictors of post-operative complications were identified using logistic regression. Predictive models were compared using areas under the receiver operating characteristic curves (AUROC).

Results: A three-parameter model was constructed, termed FAS: Functional status, American Society of Anesthesiologists (ASA) classification, and prior Sepsis. FAS predicted post-operative complications with odds ratio (OR) 1.11, 95% CI (1.10, 1.12), P < 0.001 and AUROC of 0.69, 95% CI (0.67, 0.70).

Conclusions: FAS predicts post-operative complications after open lysis of adhesions using three readily available clinical parameters.