Background and Aims
Rebound pain occurs after 50% of ambulatory surgeries with regional anaesthesia. (1) To assist with risk stratification, we aimed to develop a model to predict severe rebound pain after foot and ankle surgery involving single-shot popliteal sciatic nerve blockade.

Methods
After ethics approval, we performed a retrospective cohort study at St. Paul’s Hospital, a tertiary care centre in Vancouver, Canada. Patients undergoing lower limb surgery with popliteal sciatic nerve blockade from January 2016 to November 2019 were included. Exclusion criteria were uncontrolled pain in recovery room, perineural catheters, and loss-to-follow-up. We developed and internally validated a multivariable logistic regression model for severe rebound pain, defined as transition from well-controlled pain in recovery room (numerical rating scale [NRS] ≤ 3) to severe pain (NRS ≥ 7) within 48 hours. (1) A priori predictors were age, sex, surgery type, planned admission, local anaesthetic type, dexamethasone use, and intraoperative anaesthesia type. Model performance was evaluated using area under the receiver operating characteristic curve (AUROC), Nagelkerke’s R², scaled Brier score, and calibration slope.

Results
The cohort included 1365 patients (50 [16] years). Primary outcome was collected in 1311 (96%) patients, with severe rebound pain in 652 (50%). Internal validation revealed poor model performance, with AUROC 0.632 (95% CI 0.602, 0.661; Bootstrap optimism 0.021), Nagelkerke’s R² 0.063, and scaled Brier score 0.047 (Table 1). Calibration slope was 0.832 (95% CI 0.623, 1.041; Figure 1).

Conclusions
A model developed using routinely collected clinical data has poor predictive performance for rebound pain. Prospective studies involving other patient-related predictors are needed.

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BILATERAL ULTRASOUND-GUIDED ERECTOR SPINAE PLANE BLOCK FOR POSTOPERATIVE ANALGESIA IN THORACIC COMBAT TRAUMA

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Background and Aims
Thoracic Combat Trauma causes severe postoperative pain. The primary objective of this study was to compare the effect of ultrasound (US)-guided erector spinae plane (ESP) block on 24-hour postoperative cumulative opioid requirements with standard (opioid-based) analgesia.

Methods
22 patients with Thoracic Combat Trauma scheduled under general anesthesia were randomly assigned to the following (and they are): 10 patient control group-no preoperative ESP block, or 12 patient ESP block group-preoperative bilateral US-guided ESP block. Both groups received standard general anesthesia during surgery. Postoperative pain score, number of patients requiring rescue analgesia, and total morphine consumption during the first 24 postoperative hours were recorded.

Results
Postoperative morphine consumption was significantly lower in patients in the ESP group compared with those in the control group (1.9 ± 1.3 vs. 7.1 ± 2.2 mg, respectively; P < 0.001). All patients in the control group required supplemental morphine compared with only 3 (25%) in the ESP block group (P = 0.003). Pain scores immediately after surgery (P = 0.001) and at 6 hours after surgery (P = 0.020) were lower in the ESP block group compared with the control group. Patient satisfaction scores were more favorable in the block group (P < 0.0001).

Conclusions
US-guided ESP block reduces postoperative opioid requirement and improves patient satisfaction compared with standard analgesia in Thoracic Combat Trauma patients.