

**GS078P**  
**VALIDATION OF THE CAIRNS PREDICTION MODEL FOR**  
**CONVERSION OF LAPAROSCOPIC TO OPEN**  
**CHOLECYSTECTOMY**

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**Purpose:** At present there are limited prediction models that are user friendly and simple to understand when considering conversion from laparoscopic to open cholecystectomy. Recently a prediction model has been developed at Cairns Hospital (QLD), which aims to identify patients who are at greater risk of conversion.

The aim of this study was to externally validate the predictive model developed in Cairns using patients from Townsville Hospital. It is hypothesized that this model is feasible for use in current surgical practice. It was hoped that by early recognition of these at risk patients, will lead to reduced operative times, diminished hospital length of stay and operative complications.

**Methodology:** This study was a retrospective longitudinal study of all patients who underwent a laparoscopic cholecystectomy at The Townsville Hospital during the years 2013 and 2014. Two patient factors (previous upper abdominal surgery, obesity) and three ultrasonography findings (impacted gallstones, gallbladder wall thickness and visible cholelithiasis) were evaluated for each case. The rate of conversion was also documented. This data was then analyzed and incorporated into the pre-developed Cairns predictive model to determine its external validity.

**Results:** In total there were 451 patients who underwent laparoscopic cholecystectomies, seven of whom had conversions to open procedures (1.6%). 400 patients had complete data and could be included in the ROC analysis. Five of the included patients had conversions (1.3%).

**Conclusion:** External validation provides some support for the Cairns prediction model (AUC 0.74,  $p=0.061$ ). We aim to add 2015–2016 data and re-do the analysis.

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