

# HOW TO ASSESS POSTOPERATIVE MORBIDITY IN HIGH-RISK PATIENTS AFTER MAJOR ABDOMINAL SURGERY: THE CLAVIEN-DINDO CLASSIFICATION OR THE COMPREHENSIVE COMPLICATION INDEX?

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Argomento: Altro

## *Background*

An accurate and reproducible method for the evaluation of postoperative morbidity is essential for a valid assessment of the outcomes of surgery. However, reporting of complications is still insufficient to meet this objective. The Clavien-Dindo classification of complications (CDC) is a validated system which reports only the most severe complication. The Comprehensive Complication Index (CCI) is a novel scale designed to capture the overall burden of complications. The aim of our study was to validate and compare the CDC and the CCI in the setting of high-risk surgical patients in whom multiple complications are common.

## *Methods*

A prospective, observational study analyzed 206 high-risk adult patients undergoing major abdominal surgery. Each postoperative complication was recorded until discharge or readmission within 30 days. The severity of complications was graded with the CDC, and the CCI was calculated subsequently. Correlations of the CDC and the CCI with hospitalization indicators and functional activity on discharge were assessed and compared.

## *Results*

A total of 424 complications occurred in 125 (60.7%) patients. The median CCI for the cohort was 20.9 [0-44.9]. CD grade II was the most frequent among patients with complications (62/125; 49.6%). The CCI and the CDC have shown a strong correlation ( $r=0.969$ ,  $p<0.01$ ). Both scales strongly correlated with the parameters of hospitalization, but the CCI showed a stronger correlation to the intensive care unit length of stay (ICU LOS; 0.670 vs 0.628,  $p<0.001$ ), postoperative LOS (0.652 vs 0.630,  $p=0.041$ ), and prolonged ICU LOS (0.604 vs 0.555,  $p<0.001$ ). The median CCI and the highest CD grade were significantly different respective to the functional activity on discharge ( $p<0.001$ ).

## *Conclusions*

The CDC and the CCI are the effective methods for reporting of complications after major abdominal surgery. The CCI is a more accurate scale for use in high-risk patients and correlates better with

the postoperative LOS.