

**Title:** The use of pre-operative checklist for the prevention of surgical errors in Low and Middle Income Countries (LMICs) population

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## **Introduction:**

As surgical volume increases globally and exceeds 313 million surgical procedures annually, mortality due to treatable surgical conditions is still high in lower-income and middle-income countries (LMICs) due to many global health challenges. With the introduction of a pre-operative checklist, a notable improvement in surgical outcome is expected especially in LMICs population. Therefore, the purpose of this study is to evaluate the use of the WHO preoperative surgical checklist in relation to its efficacy for improving patient safety and preventing surgical errors.

## **Methodology:**

A search of articles describing the use of the WHO pre-operative checklist and the outcome of it in LMICs using the PUBMED database was conducted from January 2009 to January 2022. Data on pre-operative checklist measures were recorded in pre-intervention and post-intervention stages with the relative improvement of the surgical outcome. A total of 14 articles out of 548 articles were included for the final review after a screening process based on inclusion and exclusion criteria was done.

## **Result:**

An increase in relative improvement during the post-intervention phase with the usage of the WHO pre-operative checklist has been seen. The surgical checklists were associated with increased detection of potential safety hazards, decreased surgical complications and improved communication among operating staff. The important measure seen was a decline in mortality by 4.3% in those who completed the pre-operative checklist implies how crucial the checklist affects the patient's safety in LMICs.

## **Conclusion:**

The pre-operative checklist is relatively simple and shows a promising strategy to address surgical patient safety. Our study shows that the parameters reviewed contributed significantly to prevent surgical errors in the LMIC population.