THE USE OF PRE-OPERATIVE CHECKLIST FOR THE PREVENTION OF SURGICAL ERRORS IN LOW- AND MIDDLE-INCOME COUNTRIES (LMIC) POPULATION



Shaamalan, Nur Fazlynn, Siti Sarah, Nur Syahirah, Arshvin, Jaysukh, Arunachalam, Rehan, Nasha Ellysa, Devandrn MAHSA
Faculty of Medicine, Bioscience & Nursing, MAHSA University, Malaysia

INTRODUCTION

- As surgical volume increases globally and exceeds 313 million surgical procedures annually, the 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 outcomes is expected especially in the LMIC population.

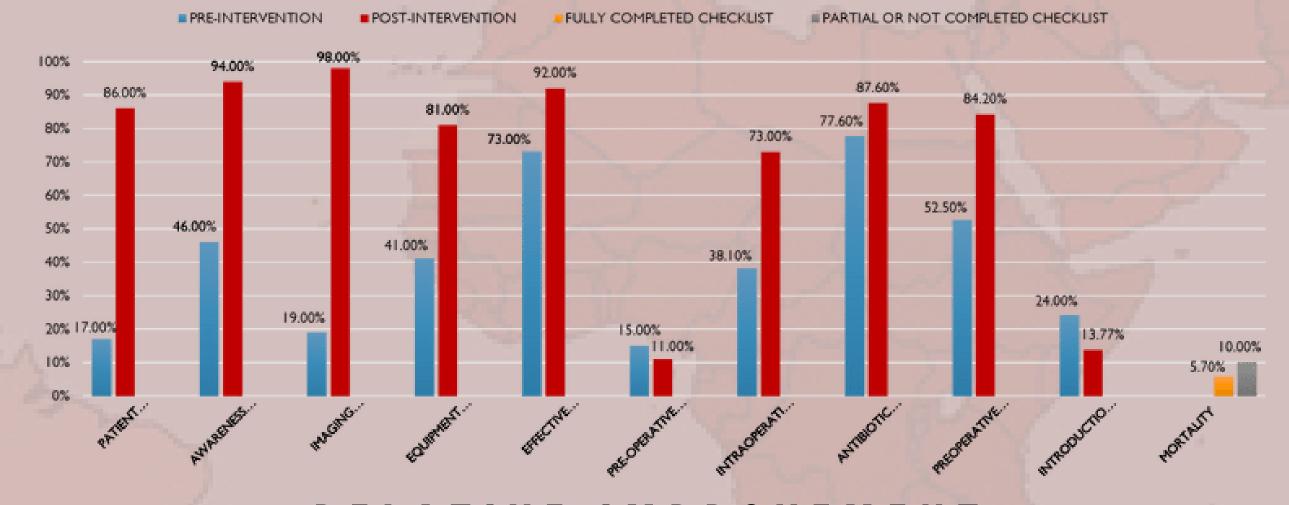
METHODOLOGY

- A literature search on the use of the WHO pre-operative checklist and the outcome of it in LMICs using the PUBMED database was conducted.
- A search strategy has been created using medical headings such as "pre-operative checklist", "lower-and-middle-income countries", "surgical" and "pre-operative".
- A total of 14 articles out of 548 articles were included for the final full-text review after a screening process based on inclusion and exclusion criteria was done.
- Data on the surgical outcome at the preintervention and post-intervention phase with the usage of the WHO pre-operative checklist were recorded.

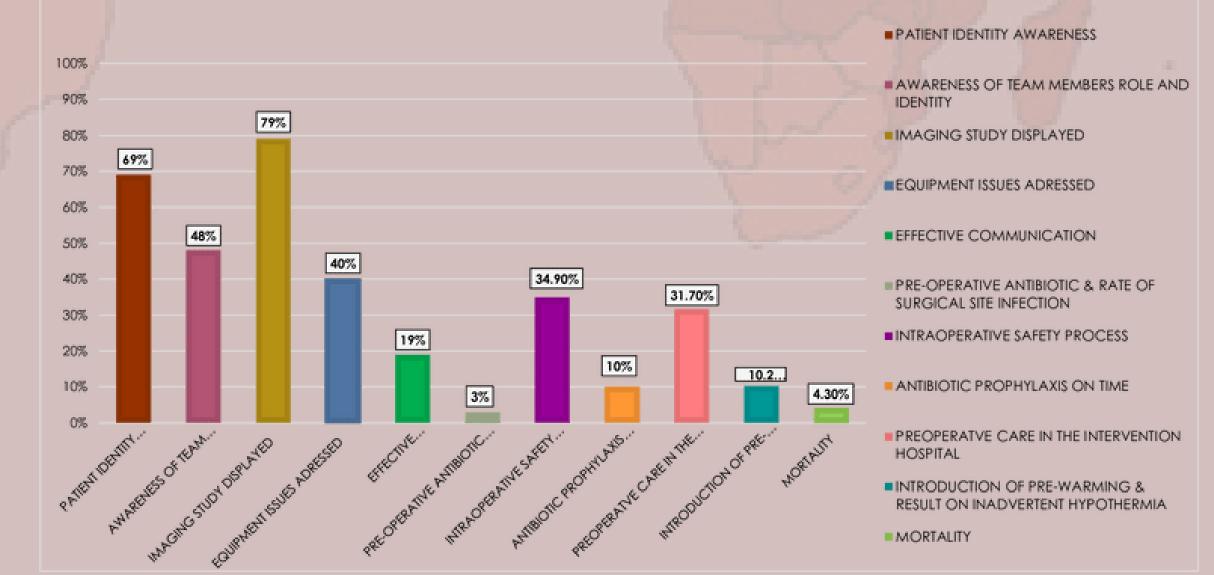
ABSTRACT

Implementation of the WHO pre-operative checklist is to prevent surgical errors. However, a very minimal study has been done in LMICs to assess the outcome of the checklist usage. Our study analyzes the surgical outcome of it and the result shows a significant improvement in preventing surgical errors.

PRE AND POST INTERVENTION



RELATIVE IMPROVEMENT



RESULT

- An increase in relative improvement during the post-intervention phase with the usage of the WHO preoperative 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.

CONCLUSION

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

REFERENCES

- Haynes, A. B. et al. A surgical safety checklist to reduce morbidity and mortality in a global population. N. Engl. J. Med. 360, 491-499 (2009).
- Pugel, A. E., Simianu, V. V, Flum, D. R. & Patchen Dellinger, E. Use of the surgical safety checklist to improve communication and reduce complications. J. Infect. Public Health 8, 219-225 (2015).