

*Postoperative adverse events inconsistently improved by the World Health Organization Surgical Safety Checklist; a systematic literature review of 25 studies (a different conference compared to the one above)*

Background: The World Health Organization Surgical Safety Checklist (SSC) has been widely implemented in an effort to decrease surgical adverse events.

Method: This systematic literature review examined the effects of the SSC on postoperative outcomes. The review included 25 studies: two randomised controlled trials, 13 prospective and ten retrospective cohort trials. A metaanalysis was not conducted as combining observational studies of heterogeneous quality may be highly biased.

Results: The quality of the studies was largely suboptimal; only four studies had a concurrent control group, many studies were underpowered to examine specific postoperative outcomes and teamwork-training initiatives were often combined with the implementation of the checklist, confounding the results. The effects of the checklist were largely inconsistent. Postoperative complications were examined in 20 studies; complication rates significantly decreased in ten and increased in one. Eighteen studies examined postoperative mortality. Rates significantly decreased in four and increased in one. Postoperative mortality rates were not significantly decreased in any studies in developed nations, whereas they were significantly decreased in 75 % of studies conducted in developing nations.

Conclusions: The checklist may be associated with a decrease in surgical adverse events and this effect seems to be greater in developing nations. With the observed incongruence between specific postoperative outcomes and the overall poor study designs, it is possible that many of the positive changes associated with the use of the checklist were due to temporal changes, confounding factors and publication bias.