



WHO Safety Surgical Checklist implementation evaluation in public hospitals in the Brazilian Federal District



Heiko T. Santana^{a,*}, Marise R. de Freitas^b,
Edmundo M. Ferraz^c, Maria S.N. Evangelista^d

^a General Management of Health Services, National Health Surveillance Agency – ANVISA, Brasilia, Brazil

^b Federal University of Rio Grande do Norte, Natal, Brazil

^c Federal University of Pernambuco, Recife, Brazil

^d University of Brasilia, Brasilia, Brazil

Received 5 October 2015; received in revised form 14 November 2015; accepted 19 December 2015

KEYWORDS

Surgical checklist;
Adverse events;
Patient safety;
Surgical team;
Infection control

Summary The World Health Organization (WHO) created the WHO Surgical Safety Checklist to prevent adverse events in operating rooms. The aim of this study was to analyze WHO checklist implementation in three operating rooms of public hospitals in the Brazilian Federal District. A prospective cross-sectional study was performed with pre- (Period I) and post (Period II)-checklist intervention evaluations. A total of 1141 patients and 1052 patients were studied in Periods I and II for a total of 2193 patients. Period I took place from December 2012 to March 2013, and Period II took place from April 2013 to August 2014. Regarding the pre-operative items, most surgeries were classified as clean-contaminated in both phases, and team attire improved from 19.2% to 71.0% in Period II. Regarding checklist adherence in Period II, “Patient identification” significantly improved in the stage “Before induction of anesthesia”. “Allergy verification”, “Airway obstruction verification”, and “Risk of blood loss assessment” had low adherence in all three hospitals. The items in the stage “Before surgical incision” showed greater than 90.0% adherence with the exception of “Anticipated critical events: Anesthesia team review” (86.7%) and “Essential imaging display” (80.0%). Low adherence was noted in “Instrument counts” and “Equipment problems” in the stage “Before patient leaves operating room”. Complications and deaths were low in both periods. Despite the variability in checklist item compliance in the surveyed hospitals, WHO checklist implementation

* Corresponding author at: National Health Surveillance Agency (ANVISA), SIA, Trecho 5, Área Especial 57, Brasilia, DF, Brazil. Tel.: +55 6134625866; fax: +55 06134626995.

E-mail address: heiko.santana@anvisa.gov.br (H.T. Santana).

as an intervention tool showed good adherence to the majority of the items on the list. Nevertheless, motivation to use the instrument by the surgical team with the intent of improving surgical patient safety continues to be crucial.

© 2016 Published by Elsevier Limited on behalf of King Saud Bin Abdulaziz University for Health Sciences.

Introduction

Errors and surgical adverse events (AEs) require the development of effective preventive measures that promote patient safety. Data from 56 countries showed that 234 million major surgeries were performed every year [1], resulting in seven million postoperative complications (50.0% of which could be avoided) and one million deaths [1,2]. In developed countries, complications in major surgical practices range from 3.0% to 16.0% with a mortality rate that ranges from 0.4% to 0.8% (compared to 5.0% to 10.0% in developing countries) [2].

In the United States, one AE is estimated to occur in every 50,000 to 100,000 surgical procedures, which results in 1500–2500 incidents/year [2–4]. More than 70.0% of the 126 AE cases in the United States were wrong-site surgery, 13.0% were the wrong patient, and 11.0% involved the wrong procedure [2]. In Brazil, few studies have assessed the magnitude of surgical AEs. Mendes et al. [5] reported an incidence of 7.6% (84 of 1103 patients) for AEs in three public hospitals in Rio de Janeiro, of which 66.7% were preventable.

Given the scale of the surgical AE problem, the WHO created the Surgical Safety Checklist with possible adaptation for local services [2]. Analyses of the use of the WHO checklist (i.e., Haynes et al.'s [6] multicenter study conducted with 7688 patients) showed a reduction in major complications from 11.0% to 7.0%, representing a 36.0% drop ($p < 0.001$), and a 47.0% decrease in mortality (from 1.0% to 0.8%; $p = 0.03$). Askarian et al. [7] observed a reduction in AEs from 22.9% to 10.0% in a teaching hospital in Iran. In Norway in 2014, a reduction in complications from 19.9% to 11.5% ($p < 0.001$) and a reduction in deaths from 1.9% to 0.2% ($p = 0.020$) were reported out of 2212 surgical procedures that did not use the checklist and 2263 cases that adopted that tool in one of the two hospitals studied [8].

In Brazil, an observational and cross-sectional study performed in 2012 in two hospitals in the

state of Rio Grande do Norte by Freitas et al. [9] reviewed the implementation of the WHO checklist in 375 surgeries and found that 61.0% used the checklist; however, only 4.0% of the checklists were filled out completely. According to the authors, adherence to the tool needs to be improved to raise awareness among surgeons about the importance of its use.

Since 2009, Ferraz [10] has stressed the need to enhance surgical safety. In 2013, the Brazilian Ministry of Health (MoH) created the National Patient Safety Program to reinforce the importance of surgical safety [11,12].

A pilot study on the implementation of the WHO checklist was developed in public hospitals in the Federal District to map strategies for adoption by other health facilities in Brazil. This study analyzed the results of the implementation of the checklist in three public hospitals in the Brazilian Federal District.

Material and methods

Study design

This study is a prospective cross-sectional study comprising a pre- and post-intervention evaluation of the WHO checklist. The inclusion criteria were: elective surgeries and patients at least 18 years of age. The following surgeries were excluded: outpatient, pediatric and cardiac surgeries (due to the seriousness of the patient's condition and/or the stress of the team/patient, especially in surgeries with cardiopulmonary bypasses), surgical emergencies, and surgeries with implants and prostheses (due to the need for lengthy post-operative follow up, which would make data collection related to the occurrence of infection more difficult). The same inclusion and exclusion criteria were applied to the pre- and post-intervention phases.

Download English Version:

<https://daneshyari.com/en/article/3405800>

Download Persian Version:

<https://daneshyari.com/article/3405800>

[Daneshyari.com](https://daneshyari.com)