

## A checklist for surgical safety to reduce morbidity and mortality in a global population

N.Ruggiero Perrino\*\*, R.Lionetti\*, M.D'Ambra\*, S. Dilillo \*,

D.Schiavone\*\*\*, M.Triassi\*\*, Ferulano G.P.\*

Dpt.Patologia Sistemica, Università "Federico II", Napoli\* .

\*\*Dpt.Sienze Mediche Preventive Sez. Igiene Università "Federico II", Napoli

\*\*\*Direzione Sanitaria AOU Policlinico Federico II

### ABSTRACT

#### Background:

The surgery has become an integral part of comprehensive health care with an estimated 234 million surgeries performed each year. The surgical complications are common and often preventable. We hypothesized that a program to implement a Safety Checklist for Surgery (Surgical Safety Checklist) and consists of 19 items designed to improve team communication and coherence / consistency of the assistance would reduce complications and deaths associated with surgery.

#### Methods:

Between June 2010 and September 2010 the Surgical Unit of the dpt. of Systemic Pathology participated to the program of the WHO (World Health Organization) "safe surgery saves lives" . We have collected preliminary data on prospective clinical trials and the outcomes of 100 patients aged  $\geq 16$  years enrolled consecutively who underwent surgery with the exception of cardiac surgery. Then we collected data from 100 patients enrolled consecutively after the introduction of checklists for surgical safety. The primary end point studied was the rate of complications, including death during hospitalization within the first 30 days for surgery.

#### Results:

The mortality rate was 1.5% before the introduction of the checklist and was reduced to 0% after the introduction

Complications rose up 11% of patients before the introduction of the checklist and 0% after the introduction

#### Conclusion:

The introduction of the checklist was associated with a concomitant reduction in mortality and complications among patients  $\geq 16$  years of age undergoing surgery (except heart surgery).