Proposal on how to reduce the rate of missing instruments by using Lean Six Sigma improvement process .

## Introduction

Health care is a vital component of modern society, presenting an enormous display of social, political, technological and economic challenges. Despite these challenges health care professionals strive to deliver the highest quality care possible. The ability to provide impeccable preventative care consistently is of great importance to achieving the goal of reducing the overall cost of health care for patients and providers alike. In order for a surgeon to have the best chance of performing a successful operation, he or she requires a proper set of sterile instruments. The Central Sterile Supply Department (CSSD) is responsible for this chain of tasks referred to as instrument reprocessing. It is a complex process driven by the needs of the operating rooms they support. Therefore, hospitals all over the world are working to improve their CSSDs to ensure safety and effectiveness.

## Rational for the study

The researcher will study the causes of the missing instruments that occur in the CSSD of this hospital while utilizing an A-3 problem solving approach. Lean process improvement and a 5S methodology to drive change were implemented and the researcher will study the factors that influence the implementation. Lean Six sigma is a method of increasing process efficiency by reducing non-value-added time. 5S is a Lean tool that increases efficiency and is characterized in the five steps of Sort, Set in Order, Standardize, Shine and Sustain. A3 is a problem solving process that can use Lean methods to bring improvements in the CSSD.

## Procedure.

The researcher will observe the workflow to identified why and how these instruments get lost.

Does the end-user count the instruments perioperative?

Does the end-user report missing instruments immediately?

Does the CSSD technicians count instruments in the packing and assembly room?

The researcher also plan to have a questioners for the operating room staff and CSSD staff about their understanding to reduce the missing rate of instruments.

## Conclusion

Proper instrument management requires good collaboration to help teams in the OR and CSSD to protect the health facilities surgical instruments to increase patient safety and decrease the enormous amount of missing instruments.