



Service Priorities and Programmes Electronic Presentations

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Enhancing Patient Safety, Staff Wellness and Output for Total Knee Replacement

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Introduction

As AHNH is a designated NTEC Total Joint Centre, we would like to enhance the workflow of Total Knee Replacement (TKR) which comprises 75% of total joint surgeries.

Objectives

By applying the Lean principles to enhance the workflow process for TKR.

Methodology

Time observation record and video-recording were used to chart the preparation work flow of theatre staff to setup TKR. Evaluation was done by value stream mapping. Constraints and wastes were identified and rectified.

Result

The major constraint was the instrument setup time as the standard orthopaedic set had too many instruments resulting in time wasted in unnecessary counting and handling motions of theatre staff.

Instrument trays and supplementary packs were revised with 25% of instruments removed. This not only hastened the handling time but also decreased the reprocessing workload of TSSU. Seven individual disposable drapes were repackaged to one bundle pack. Esmach bandage was trimmed from 400cm to 350cm, thus shortening the rolling time.

The overall benefits were threefold. Firstly, higher output could be achieved as a total 10 minutes were saved from setting up and counting. Secondly, patient safety was enhanced as fewer instruments would render staff relatively more time in instrument integrity checking. Thirdly, as handling instrument trays were strenuous, reduced handling motions could promote staff wellness.

Conclusion

Improving the workflow of TKR setup would lead to higher theatre output and enhancement of patient safety and staff wellness.