**Central Fabrication of Raise Sole Shoe Modification Defect Reduction Project**

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**Keywords:**
Central Fabrication
Shoe modification
Raise sole
Defect reduction
Six sigma
Prosthetic and Orthotic

**Introduction**

Patients with leg length discrepancy needs shoe modification service (adding raise soles to shoes), provided by Prosthetics & Orthotics Department (P&O Dept.), to regain balanced bipedal standing and walking. The fabrication process of shoe modification among NTEC is centralized at P&O Dept., PWH. There was 13.7% re-work due to shoe modification errors in the dimension. By adopting Six Sigma methodologies, the fabrication errors and the induced re-worked rate were reduced.

**Objectives**

To reduce the wrong dimension rate to be under 7% by the end of Jan, 2015

**Methodology**

This continue quality improvement (CQI) project utilize various Six Sigma technics to define (D) the problem, measure (M) the error, analyst (A) the root cause, improve (I) the process and introduce control (C) in the long run. After the whole DMAIC steps, new Poka Yoki method and checklist were launched in improve the shoe modification dimension accuracy.

**Result**

The wrong dimension rate was reduced to 0% after new method was introduced. Accuracy of shoe modification dimension was much improved after this project, with the effective and structured framework of Six sigma as a guidance.