



## ABS037

## THE APPLICATION OF LEAN SIX SIGMA TO PROVIDE HIGH QUALITY, RELIABLE HEALTH CARE

**Ahmed Fuwad<sup>\*1</sup>**,  
Rajeswari Ramasamy<sup>2</sup>,  
Amal Sebastian<sup>1</sup>,  
Muhammed Ashique<sup>1</sup>,  
Ren Joy Mathew<sup>1</sup>,  
Ujwal Teja Yalla<sup>1</sup>

<sup>1</sup>PharmD Research  
Students

<sup>2</sup>Associate Professor,  
Department of Pharmacy  
Practice,  
Krupanidhi College of  
Pharmacy,  
Bengaluru.

Healthcare industry has been operating on its own way ignoring emerging factors such as competition, patient safety, sky rocketing health care cost, liability malpractice and insurance cost.

However, as these factors became more prevalent and competition within the industry intensified, many hospitals have been becoming increasingly aware of the critical needs of controlling the operating costs and meet and even exceeds the expectations of patient care quality.

This paper presents a model of Lean Six Sigma(LSS) to prove crucial in improving patient care, reducing costs, and ensuring sustainability by providing high-quality, reliability and care in patients. Six Sigma in healthcare simply means “a measure of quality that strives for perfection through a disciplined, data-driven approach and methodology for eliminating errors in patient health outcome”.

Lean and Six Sigma are typically combined in health care because they address two related, but separate, issues. Lean's concentration on cost reduction and efficiency is a perfect complement to Six Sigma's pursuit of accuracy and precision.

Methodology involves five step problem solving approach known as DMAIC:(Define, Measure, Analyze, Improve and Control). Organisation team for a six sigma process are divided into different belts based on their knowledge and experience.(Yellow, green, black, master black and champ).Benefits includes increased patient satisfaction and care, Increased prescription accuracy, Reduced waiting time and variation, Increased physician satisfaction, Reduced cost and savings, Fewer medication errors. A Lean Six Sigma project was carried out by a mid-sized hospital to change the policies and practices for minimizing following Medication Errors like route, patient related ,drug related, frequency, dose, omission.

The project team combined lean methods and Six Sigma techniques in the error reduction process. The results shows reduction in the medication errors from the month of February to June.

The DMAIC methodology, a consistent and standardized way of problem solving as used in Six Sigma method was applied throughout the organization. Through this method healthcare organizations can improve patient outcomes, and at the same time can remain competitive by cutting costs, better time management, reducing medication errors and improving quality.

**Keywords: Six Sigma, Healthcare, Medication Errors**