

# Methodology to reduce cancellations of scheduled surgeries

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## Abstract

**Purpose** - This study presents an integrated methodology to support the logistics management in health facilities in waste reduction and elimination, by providing simple and low cost solutions to minimize the cancellation of scheduled surgeries. The methodology is applied in a Portuguese public hospital. This approach promotes and improves the quality of services to patients.

**Design/methodology/approach** - The methodology is a problem-solving process which could be applied to manage the flows of services (and materials), and associated information, from the point of origin to the point of care. This approach integrates several stages such as definition, measurement, analysis, improvement and control (DMAIC), and uses the quality and management tools required to obtain efficient and effective solutions to patients.

**Findings** - The enhanced methodology contributes to an understanding the origins of the difficulties and waste. For the case study, the cancellation rate ranges from 19% and 21% in 2011 and 2012, respectively, and increases to 29% in 2013, although, this year the operating room performed the highest number of operations. The most critical root causes of cancellations are related to the changing patient's state of health, delays in previous surgeries, scheduling of emergency operations, refusal to undergo surgery and other causes.

**Originality/value** - One of the main contributions of this paper is to apply the DMAIC based approach to study the cancellations of scheduled surgeries in a given Portuguese public hospital, which is an issue rarely addressed in the literature.

**Keywords:** Quality, Surgery, Logistics, Improvement