J Pharm Innov (2013) 8:205–211
DOI 10.1007/s12247-013-9159-9

RESEARCH ARTICLE

Quality KPIs in Pharmaceutical and Food Industry

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Published online: 16 August 2013

Abstract
Purpose This study aims to investigate what type of quality key performance indicators (KPIs) companies use and how they utilize the results of these KPIs.
Methods This e-mail survey is aimed at the personnel in the pharmaceutical and the food industries of Finland responsible for quality.
Results Quality KPIs were similar for both the pharmaceutical and food industries with some differences existing in their usage and reporting. In the pharmaceutical industry, the most common quality KPI was rejected batches followed by the number of complaints, product defects, and deviations. The number of complaints was the most common quality KPI for the food industry. The next most common KPIs were the loss during process and the number of deviations. Respondents in both the pharmaceutical and food industries thought that it is important to follow the indicators that describe the quality of a product and operation. Food companies shared their KPIs and their results with their partners and relevant authorities more often than did pharmaceutical companies.
Conclusions The results of this study showed that the food industry was slightly more advanced than the pharmaceutical industry in the utilization of the quality indicators. However, statistical significant differences exist between the pharmaceutical and food industries with regard to one quality indicator, namely, rejected batches on the one hand and in the opinion of respondents on how well quality indicators will help direct operations in the right direction on the other.

Keywords Quality KPI · Quality indicator · Pharmaceutical industry · Food industry · Lean practices

In this study we investigated less published quality indicators in pharmaceutical and food industry. Food industry has been chosen to get important benchmarking data from other area of industry.

Electronic supplementary material The online version of this article (doi:10.1007/s12247-013-9159-9) contains supplementary material, which is available to authorized users.

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Abbreviations

KPI	Key performance indicator
OPEX	Operational excellence
TQM	Total quality maintenance
QM	Quality management
CAPA	Corrective and preventive action
DMAIC	Define-Measure-Analyze-Improve-Control

Introduction

Price pressure and stiff competition are driving the pharmaceutical industry towards higher quality and continuous improvement as a means of sustaining competiveness. ICH guideline Q10 highlights the importance of continuous improvement and states that process performance and product quality system should provide the tools for the measurement and analysis of parameters [1]. There is also pressure on the pharmaceutical industry to transfer from time consuming end-product testing