

APPLICATION OF JAPANESE CONCEPTS TO QUALITY/RISK MANAGEMENT IN HEALTHCARE SECTOR

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ABSTRACT

Given that healthcare sector is changing rapidly, specifically over the decade or so—in terms of quality, product liability, and regulatory considerations from institutional forces the world over. This research examines the applicability of various Japanese production concepts to the healthcare sector in general and the potential value offered by such concepts specifically to effectively address quality/risk aspects in healthcare industry. We provide an overview of Japanese concepts including muda, mura, muri, joushiki, jinmyaku, etc., and discuss the value proposition they potentially offer to healthcare industry practitioners.

Keywords: Japanese concepts, healthcare, quality management, risk management, value proposition.

INTRODUCTION

Given that healthcare sector is changing rapidly, specifically over the decade or so—in terms of quality, product liability, and regulatory considerations from institutional forces the world over. These considerations pose considerable risks to industry players. Although there are some examples of the use of quality risk management in the healthcare industry today, they are limited and do not represent the full contributions that risk management has to offer. In addition, the importance of quality systems has been recognized in the healthcare industry, and it is becoming evident that quality risk management is a valuable component of an effective quality system.

HEALTHCARE RISK MANAGEMENT

Healthcare risk management is a systematic process for the assessment, control, communication and review of risks to the quality of the care (based on EU Guidelines to Good Manufacturing Practice Medicinal Products for Human and Veterinary Use across the product lifecycle [1]). An adapted model for healthcare risk management is outlined in the diagram (Figure 1).

Three primary principles of healthcare risk management in healthcare sector are:

- The evaluation of the risk to quality care should be based on scientific knowledge and ultimately link to the patient protection;
- The level of effort, formality, and documentation of the risk management process should be commensurate with the level of risk; and
- The practice of risk management should be commensurate with the regulatory environment (that is, institutional forces) as well as normative practices of the location.

Activities related to healthcare risk management are usually, undertaken by interdisciplinary teams. When teams are formed, they should include experts from the appropriate disciplines (especially internal

stakeholders) in addition to individuals who are knowledgeable about the healthcare risk management process. Decision makers in healthcare sector should:

- take stock of the external environment to ascertain opportunities and threats that change the nature of risk and its management,
- take responsibility for coordinating healthcare risk management across various functions and departments of their organization, and
- ensure that a healthcare risk management process is defined, deployed, and reviewed and that internal capabilities do exist and adequate resources are available [2].

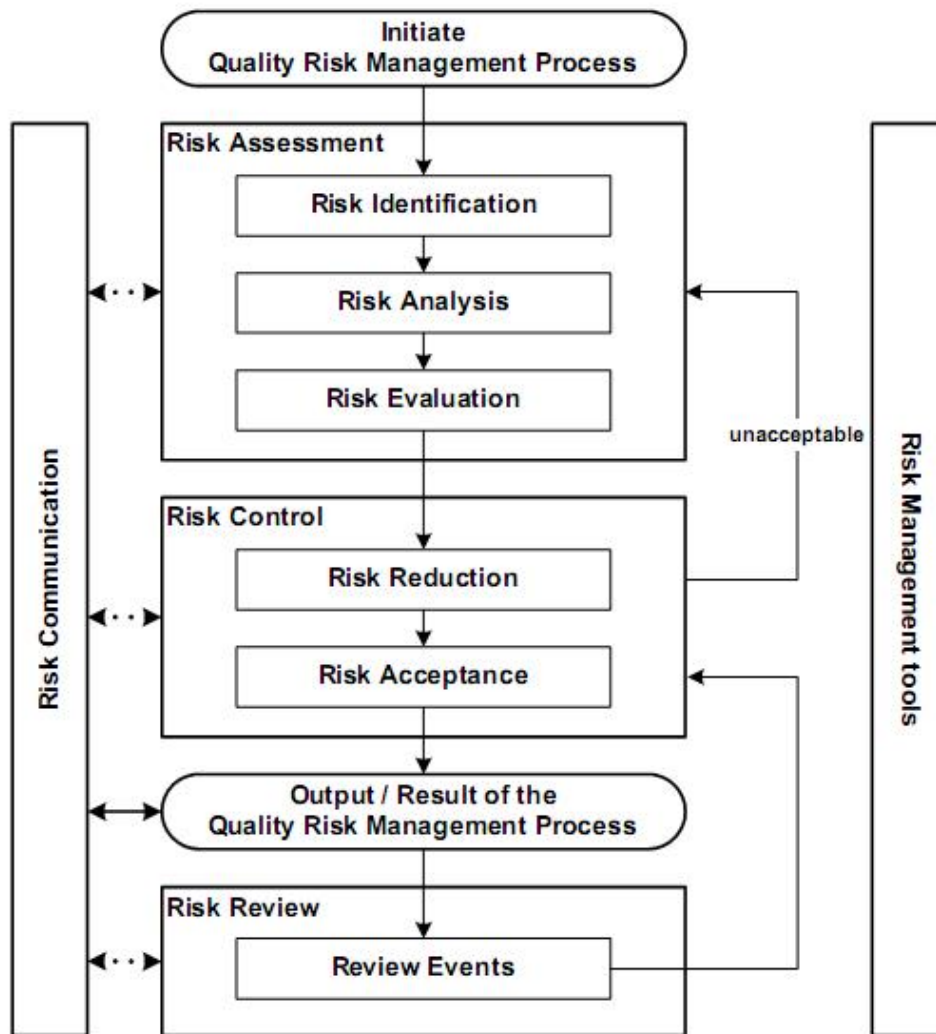


Figure 1: Overview of a typical risk management process in healthcare [1].

Possible steps for deploy a healthcare risk management process might include the following:

Risk Communication

Risk communication is the sharing of information about risk and risk management between the decision makers and others in healthcare sector. It is done throughout the risk assessment, risk control, and risk review stages.

Risk Assessment

The risk assessment stage involves of the identification of hazards and the analysis and evaluation of risks associated with exposure to those hazards in healthcare sector. This stage includes, risk identification, risk analysis, and risk evaluation substages. As an aid to clearly defining the risk(s) for risk assessment purposes, three fundamental questions are often helpful [3]:

- What might go wrong?
- What is the likelihood (probability) it will go wrong?
- What are the consequences (severity)?

Risk Control

Risk control stage involves decision making in healthcare sector to reduce and/or accept risks. The purpose of risk control is to reduce the risk to an acceptable level. Decision makers in healthcare sector might use different processes, including benefit-cost analysis, for understanding the optimal level of risk control. This stage includes risk reduction and risk acceptance substages. It should focus on the following questions [4]:

- Is the risk above an acceptable level?
- What can be done to reduce or eliminate risks?
- What is the appropriate balance among benefits, risks and resources?
- Are new risks introduced as a result of the identified risks being controlled?

Risk Review

Risk management stage should be an ongoing part of the quality management process in healthcare sector. The output/results of the risk management process should be reviewed to take into account new knowledge and experience.

APPLICATION OF JAPANESE CONCEPTS TO RISK MANAGEMENT

Japanese concepts offer potential value to the healthcare sector, specifically in effectively addressing quality/risk aspects in healthcare industry.

Muda, Mura, and Muri

To begin with there are the three production concepts—Muda, Mura, and Muri—that need to be proactively managed in the healthcare sector. Muda translates as “waste” or “unnecessary work.” The other two are related to Muda: Mura is usually translated as “inconsistency” and Muri is usually translated as “overburden.”

Wasteful spending in the healthcare system has been calculated at up to \$1.2 trillion of the \$2.2 trillion spent in the United States, more than half of all health spending [5]. Defensive medicine, such as redundant, inappropriate or unnecessary tests and procedures, was identified as the biggest area of excess, followed by inefficient healthcare administration and the cost of care necessitated by conditions such as obesity, which can be considered preventable by lifestyle changes.

A recent report classified health system inefficiencies into three “wastebaskets” that drive up costs [6]:

- Behavioral, where individual behaviors are shown to lead to health problems, and have potential opportunities for earlier, non-medical interventions.
- Clinical, where medical care itself is considered inappropriate, entailing overuse, misuse or under-use of particular interventions, missed opportunities for earlier interventions, and overt errors leading to quality problems for the patient, plus cost and rework.
- Operational, where administrative or other business processes appear to add costs without creating value.

One of the things frequently cited by healthcare practitioners is how their workload is wildly variant and unpredictable [7]. Two big drivers for high day-to-day variation of demand on the system are:

- Patients can show up at any time. This is especially true in Emergency Services, where, by definition, demand is uncontrolled.
- Each individual case is potentially unique, or at the least, any one of them could go from routine to non-routine at any time.

Looking at the sources of stability, vs. causes or sources of instability, most care-delivery flow operations can usually find something to leverage. These concepts is applicable to the risk assessment and risk control areas.

Joushiki

Another trait that healthcare practitioners across US seem to be using less of is joushiki or common shared consciousness (or behavior/knowledge that should be obvious). The potential value of having a common learning platform and open standards/source [8] for best practices in error proofing in healthcare to the masses is too vast that remain undercapitalized without such a mindset. This concept is applicable to the risk communication, risk assessment, and risk review areas.

Jinmyaku

In healthcare sector, it becomes important to separate the routine from the non-routine and the normal from abnormal [9]. This can be done by realistically capturing the “voice of the stakeholders,” which can be done via jinmyaku or personal connections. This can be achieved by creating population maps, stakeholder maps, environmental maps, interventional maps, and tracking maps. This concept is applicable to the risk communication, risk assessment, and risk review areas.

CONCLUSIONS

From a socio-technical point of view a quality risk management system is an association, a network of humans and artifacts, formed with a purpose to reduce risk and improve the quality of healthcare service delivery by internal reflexivity of medical professionals in health care companies and (a valid) external accountability to patients or society. Japanese concept offer plausible value propositions to healthcare industry practitioners in the way they make decisions to manage such quality risk management situations.

REFERENCES

A full set of references are available upon request from Arvinder Loomba, San Jose State University.