



International Academy for Quality

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First World Quality Forum

“Quality for Future of the World”

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**Quality Management Approach to
Healthcare
– Its Meaning and Significance –**

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Growing interest in healthcare quality and safety

- “Curing Health Care”
 - Report of NDP (National Demonstration Project) in 1987-1988 in USA
- Two medical accidents in 1999 in Japan
 - Patient mix-up
 - Incorrect medication
- Social demand for healthcare safety
 - Medical Safety Office in MHLW (Minister of Health, Labor and Welfare)
 - Variety of efforts in hospitals
- Application of quality management
 - Specific features of healthcare
 - Healthcare as a socio-technology

Effectiveness of quality approach

- Significance of quality in management
- Customer-oriented
- Quality of work
- Concept of management
- PDCA cycle
- Fact-based management
- Process control
- Placing a high value on people
- Improvement participated by all
- Problem-solving

Quality Management Approach

- What does it mean?
 - Many people say “it will be effective to apply quality management into healthcare processes”
 - But, what does “quality management approach to healthcare” mean?
- What kind of approach can be regarded as “quality management approach”?
 - What kind of considerations are needed for the quality management approach?
 - What are essences of the approach?

Excellent Work System

- Technology
 - A reproducible **methodology necessary to achieve an objective**
 - To deliver a desired result, inherent (or product-specific) technology needs to be made available
- Management
 - A methodology to continually and efficiently achieve an objective by **utilizing the inherent technologies**
 - Even if it is known what to be done technically, it is quite difficult to do what supposed to be done to achieve an objective.
- People
 - Those who work by using the **established technology and management method**
 - People must be equipped with capability (knowledge and skill) and motivation
- Organizational culture
 - **Climate and values** of an organization which support technology and management and influence **people's way of thinking and doing**

Technology and Management

- To achieve quality of product and services
 - **Inherent technology**, or product/service-specific technology
 - **Management systems** to utilize the inherent technology as a whole organization
- Management technology
 - “Inherent technology” and “Management technology”
 - Management technology: **Technology** (or methodology) to make use of inherent technology
- Typical management technology
 - **Procedures**, manuals, instructions, **guidelines**, templates, worksheets
 - **Specify and recommend** the measures necessary to achieve an objective
 - **Support** effective application of **proper inherent technology** by **well organized representation of technical contents**

Which is more important, “technology” or “management”?

Inherent Technology

- In the other sectors than manufacturing.....
 - **Not necessarily easy** to apply quality management
 - A brilliant success in the manufacturing is because, for example, they **correctly identify potential technical causes** of defects when they worked to reduce defects.
 - The **level of any management system** cannot exceed the level inherent technology which is embedded in the management system
- Visualization, Structuration and Standardization of Technology
 - Management technology like quality management worked effectively in the manufacturing sector because inherent technologies were **established** fairly well
 - The level of **visualization, structuration and systematization** of the inherent technology is essential as well as the technical contents of inherent technology

Quality Management System

- Quality management
 - The best approach to understand the **significance of management technology** and apply it into the management of an organization
- Quality Management System
 - **Q**: quality
 - Customer focus: for customers
 - **Objective-oriented**: for what, why
 - **M**: management
 - Management: **methodology to make the best use of technology**
 - Principles of management: PDCA, standardization, process control, fact, improvement, cause analysis, people
 - **S**: system
 - **Systematization**
 - System design to achieve an objective
 - Roles of each department, function and personnel

Healthcare as a Socio-Technology

- Socio-technology
 - Collective efforts of all healthcare players are essential
 - Healthcare is a **socio-technology**
Socio-technology: A technology (a reproducible methodology to achieve an objective) to be owned by **whole society**
- Reflection of the **level of the society**
 - **Safety** of aircraft, traffic, factory and nuclear power plant, **environment** and energy management, **information** and knowledge infrastructure, and social **security** such as crime control
- Healthcare as a socio-technology
 - Healthcare quality and safety management **technology** as a socio-technology
 - Concept, methodology and implementation of the **framework** of healthcare as socio-technology

Forms of Socio-Technology

- Shared knowledge
 - **Principles**: Common recognition about healthcare quality and safety principles
 - **Basic model** of BOK: Common recognition about basic structural model of body of knowledge (BOK)
- Knowledge infrastructure
 - Establishment of **BOK**: Development of BOK (technology and management); Consensus building among experts
 - **Availability** of knowledge: Infrastructure to disseminate and promote knowledge; Consulting; Opportunity for networking
 - **Acquisition** of new knowledge: Method to acquire new or advanced technical achievements; Upgrading knowledge contents
- Implementation
 - Implementation and application of BOK contents **in healthcare organizations**
 - Improvement of the **application level** in healthcare organizations

Forms of Socio-Technology

| For quality/safety Form of socio-technology | | Inherent technology (clinical expertise) | Management (healthcare quality management) |
|--|---|--|---|
| Shared knowledge | Principles Basic models | Basic model of clinical process | Healthcare quality and safety principles Quality management principles |
| Knowl- edge infra- structure | BOK structure Knowledge contents | Structural model of clinical knowledge Clinical operation flow | Healthcare QMS model Safety management system model Work process model Introduction/promotion model |
| | Accessibility Availability | Distribution of contents Software application | Internet, Publication, Training, Study meeting, Consulting |
| | Knowledge acquisition | Visualization of new technical achievements Analysis | Visualization of new knowledge Analysis Transformation to knowledge |
| Imple- mentation | Applications | Application in hospitals Application in region Regional alliance Feedback for improvement of clinical contents | Application in hospitals Application at region or nation Feedback for improvement of healthcare management model |

Shared knowledge

- Principles for Healthcare Quality and Safety
 - Principle 1: Patient focus
 - Shift from focus on healthcare **providers' values** to **patient-centered** healthcare
 - Principle 2: Human factor
 - Understand **people's weakness** and support them rather than **blame** them
 - Principle 3: System-oriented
 - Shift from dedication and repentance of **individual** to **system-oriented** assurance and improvement
 - Principle 4: Participation of all people
 - Shift from total reliance on **specialists** to **all people** participation
 - Principle 5: Analysis of failure
 - Shift from looking for whom to **blame** to **learning** lessons for future improvement
- Healthcare process
 - Patient condition **adaptive** intervention process

Knowledge infrastructure

- Body of Knowledge
 - Knowledge on **clinical processes**
 - Structured visualization of clinical expertise, clinical technologies and clinical skills in a way appropriate for healthcare
 - Knowledge on healthcare **QMS**
 - Excellent system models, standard work procedures and know-how about organizational management to assure healthcare quality and safety
- Accessibility to Knowledge
 - Availability of BOK
 - Infrastructure, mechanism and opportunity **to disseminate, promote and exchange** the knowledge
 - **Standardization**
- Knowledge Acquisition
 - Method to **acquire and improve** knowledge about healthcare quality and safety
 - **Consensus building** process
 - A scheme for managing BOK

Implementation

- Structured Clinical Knowledge
 - Apply standardized clinical knowledge
 - Improve clinical knowledge contents
- Healthcare Quality Management System
 - Develop **comprehensive** healthcare quality management system
 - Implement safety management system
- Improvement of Work System
 - Develop a mechanism to **improve healthcare work system**
 - New essential knowledge

Who will realize it?

- In mid 1980s
 - In a quality symposium held in China as a panelist
 - “Why is quality good in Japan?”
“Because Japanese purchasers are **highly aware of quality**”
 - “What should we do to raise quality awareness among the public?”
“You should inform the public that **good-quality goods are available**”
- Who is responsible?
 - It is **customers** who build a quality-focus society
 - It is **society and citizens** that build safe society
 - All reforms are initiated by **public opinion**
- How are opinion leaders, who stimulate and nurture public opinion, developed?
 - Establish “**Healthcare Quality and Safety Science**” to foster right values and public opinions supporting good-quality and safe society
 - Knowledge base for healthcare quality and safety will be shared in society, in which people acquiring right knowledge will be gradually organized. Eventually **sea change** will take place.

Healthcare Quality and Safety Science

- 1. Fundamental Concepts** (Thought, philosophy and views on healthcare quality and safety)
 - **Healthcare quality and safety**
 - **Management**, system, process, organizational culture
 - **Human factors**, social psychology, cognitive psychology, human engineering
 - **Features** of healthcare (Affecting living body, individuality and variety of patients, high specialty, etc.)
 - Healthcare quality and safety as a “**socio-technology**”
 - **Guiding principles** to address healthcare quality and safety

Healthcare Quality and Safety Science

2. **Fundamental Knowledge** (Knowledge and technology concerning healthcare quality and safety)
 - Structural models for **clinical knowledge and technology** (and examples of structured clinical knowledge contents)
 - System models for **healthcare quality management system** (and examples of system models depending on features of several types of healthcare organizations)
 - System model for **healthcare safety management system** (and its examples)
 - Social structure model for **healthcare social system** (and its examples)

Healthcare Quality and Safety Science

- 3. Methodologies, tools and techniques** (Methodologies, tools and techniques applicable to healthcare quality and safety)
 - **Quality management** tools and techniques, **Industrial engineering** tools and techniques
 - **System engineering** tools and techniques, **Information science** tools and techniques
- 4. Promotion and operation** (Promotion and operation methods to be applied in healthcare organization and healthcare social system)
 - Methodologies to promote and operate healthcare quality and safety in **healthcare organizations**
 - Methodologies to promote and operate healthcare quality and safety in **healthcare social system**
 - Methodologies to establish, maintain, apply and improve **BOK** (Body of Knowledge) of “**Healthcare quality and safety science**”

Healthcare Quality and Safety Science

5. Others

- Management in variety of areas (regional comprehensive care, home care and visiting nurse, elderly care and welfare, pharmacy,)
- Various kinds of control/management (infection control, medication control, pressure sore/ulcer control,)
- Case studies
- Terminologies and glossaries

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Thank you for your attention