The Seventh Annual Quality Colloquium

New Challenge

For Patient Safety in Japan

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Nippon Medical School

August 21, 2008
Cambridge, MA
My C.V.

Graduation: Poor post-graduation education in Japan

Resident: General I Surgery, St. Joseph Hospital (Milwaukee, US)

Student: M.P.H Harvard School of Public Health (US)

Educator: Assistant Professor of Gastrointestinal Surgery: Shiga Univ. of Medical Science

Bureaucrat
National Cancer Center: Director of Planning Office
Deputy director of the Elderly Care Div, MHLW
Director of Health ODA, JICA
Vice President, Kyushu Region National Hospitals

from Bureaucrat to Researcher

1975
1980
1985
1990
1995

1995

Researcher:
Director of Health Policy
National Institute of Health Services Management
National Institute of Public Health
Researcher & Educator
Nippon Medical School
Death

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NMS, Japan
Did Research on Patient Safety

Advised Government for Policy

Developed Teaching Program

Japanese bib for the Patient Safety Initiatives
Can You Learn from Japanese Experience?

Yes  a lot
In the case of other industries!

Not  yet
In the case of health industries!
Why Japan is Champion in Quality?

Yes in the case of other industries

Not because factories are excellent

But because Japanese customer is very demanding

Why not in the case of health industries

Because Japanese patient was not very demanding

So hospitals did not need to prepare
Why Changing?

**Trigger**
Medical Accident-Yokohama Medical School
Wrong Patient Surgery!

**Background**
Consumerism-Baby Boomer Becoming Patient
Cost Drive-Rapid Ageing
Standardization-Outcome Orientation

**Policy**
Functional Differentiation-Length of Stay
Shortening

International influence: Pizza Syndrome
Pizza Syndrome

Foreign reputation defines domestic value

Italians did not know pizza is good until Americans told them so

Or

Like a Dr Deming Case

We will learn from you & make it better

Invite Me Again in 10 years!

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PART 2

Trigger
Historical Trend of Number of Accredited Hospitals by JCQHC

- Yokohama Accident
- Additional Payment

Very Slow!
Medical Lawsuits Filed

Counted by the Supreme Court

Articles on Medical Errors

In 5 Major Newspapers
## International Consequence for Patient Safety and Quality Improvement

<table>
<thead>
<tr>
<th>Year</th>
<th>US</th>
<th>UK</th>
<th>Australia</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>Dana Faber Accident</td>
<td></td>
<td>Accident Epidemiological Report</td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>President Council for Quality of Care</td>
<td></td>
<td>Quality Task Force Report</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td></td>
<td>Bristol Royal Infirmary Accident</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td></td>
<td>A First Class Service</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>IQM Report</td>
<td></td>
<td></td>
<td>Yokohama City University Accident</td>
</tr>
<tr>
<td>2000</td>
<td>QuIC Report</td>
<td>An Organization with Memory</td>
<td>Safety First</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td></td>
<td></td>
<td>National Strategic Plan</td>
<td></td>
</tr>
</tbody>
</table>
## History of Patient Safety Activity in Japan

<table>
<thead>
<tr>
<th>Year</th>
<th>Activity</th>
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<tbody>
<tr>
<td>1999</td>
<td>Accident at One Reputable Teaching Hospital</td>
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<tr>
<td>2000</td>
<td>Teaching Hospital Patient Safety System</td>
</tr>
</tbody>
</table>
| 2001 | Division of Patient Safety at Ministry of Health, Labor & Welfare  
National Council for Medical Safety  
Research Funding |
| 2002 | Comprehensive Strategy for Patient Safety |
| 2003 | National Complaint System  
Epidemiological Study on Medical Accident |
| 2004 | National Reporting System  
System for Analysis of Deaths Related to Medical Accident |
National Patient Safety System Development

People

Health Institution

Legal Field
Insurer
Mass Media
Academic
Provider Association
Health Industry
Other Industry

Patient Law
Insurance

Ministry of Law
Ministry of Science & Education
Ministry of Economics & Industry

Insurance Bureau
Policy Bureau
Health Ministry
Pharmaceutical Bureau

Consumer

Stakeholder

Government

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MHLW Council & Committee on Patient Safety

National Council for Medical Safety
Formulation of mid & long term policy & emergency measures
Evaluation & advice on medical safety measures in Japan

May 18, 2001 –

Human Error Div.
Safety of human/organizational factors
Exam of measures of securing of mng’nt system
June 28, 2001 – April 25, 2003

Pharmaceuticals & Medical Devices Div.
Exam of security mng’nt measures relevant to physical factors
August 8, 2001 – June 10, 2003

Div. of Handling of Medical Accident Info
Exam of measures of handling of info on medical accident
July 29, 2002 – April 15, 2003

Study Group on “Near Miss” Cases
Analysis of “Hiyari-hatto” cases
Exam of measures for improvement
October 2001 – September 29, 2003

Study Group on Range of Reporting Accidents
Exam of range of reporting medical accidents
July 29 2003 -
<table>
<thead>
<tr>
<th>April 2000 University Hospital</th>
<th>October 2002 All hosp &amp; clinics with beds</th>
<th>April 2003 University Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guidelines</td>
<td>Guidelines</td>
<td>⇒ Goal</td>
</tr>
<tr>
<td>Committees</td>
<td>Committees</td>
<td>⇒ Organization</td>
</tr>
<tr>
<td>Training</td>
<td>Training</td>
<td>⇒ Awareness</td>
</tr>
<tr>
<td>Report</td>
<td>Report</td>
<td>2004.10 Patient counseling system</td>
</tr>
</tbody>
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*THasegawa NMS, Japan*
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<td>Revision of Comprehensive Strategy for Patient Safety 2002</td>
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</table>
Hospital Ranking & Benchmarking

Accident Triggered the Interest in Quality
3 Main Focus of New Strategy 2005

1 Quality & Safety
2 Preventive Measures based on Analysis of Reported Cases
3 Patient Participation

Current 2 Hot Issue Discussed 2008

1 Third Party Investigation of Fatal Cases Related to Medical Accident
2 Nonfault Compensation for Birth Injury
Historical Consequences

- Risk Management
  - Many Law suits
- Safety Management
- Quality Management
  - Good Tradition

US

Japan

- Risk Management
  - Not Well Established
- Quality Management
  - Emerging

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PART 3
Background
Average Length of Stay 1960-2006

- Mainly Nursing Home
- Physician Owned Hospital
- Acute Care Hospital
- Mainly Public Hospital

JAPAN by ownership

OECD country

OECD & Japanese Gov Statistic

Convergence
Change in Expectation to Hospital

20 years ago & now Shifted

various tests
intense treatment
additional treatment
recovery towards self-care

Nursing need

diagnosis

outpatient testing
therapy
hosp. labs, op. rms.
therapy (contd.)
outpatient care
recovery

rehab. facilities, long-term care facilities, home care, hotels

US 4-5 days
Europe

US

Japan

C. Hasegawa
NMS, Japan
Surpassing Germany and Italy in 2002 to top the world

Japan is now the frontrunner!!

OECD HEALTH DATA 2000

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NMS.Japan

Australia
Austria
Belgium
Canada
Czech Republic
Denmark
Finland
France
Germany
Greece
Hungary
Iceland
Ireland
Italy
Japan
Korea
Luxembourg

World Highest in 2004

USA
Population Estimation by age
1884-2150

Toward Super Aged Society

Present

Total

Peak

Over 50
Over 60
Over 65
Over 75
Over 85
Over 90

0 2000 4000 6000 8000 10000 12000 14000
1880 1900 1920 1940 1960 1980 2000 2020 2040 2060 2080 2100

万
PART 4
Past
By Dr Minami
Structure of Edo Society
Root of Japanese Modern Hospitals
Established in 1722

Koishikawa Hospital
The Model of Akahige's Hospital

Kazuo Minami "Social Structure of Edo", Hanawa Shobo.
The Koishikawa Hospital and the Edo Era

Rise and Establishment of the Edo Era

Fall of the Edo Era

No of Beds

140

120

100

80

60

40

20

0

1600 1650 1700 1750 1800 1850 1900

Edo Government

Genroku Period

Kyoho Reform

Rule of Tanuma Okitsugu

Kansei Reform

“Rule of Ogosho’s”

Tempo Reform

1722

Bad Reputation

1820-30

Kazuo Minami “Social Structure of Edo”, Hanawa Shobo.
Annual Treatment Outcomes at the Koishigawa Hospital

Hospital Mortality Study
140 years before Nightingale

Kazuo Minami “Social Structure of Edo”, Hanawa Shobo.
Treatment Outcomes by Each Physicians

% Cured 1832 & 1833

160 years ago!!

Kazuo Minami “Social Structure of Edo”, Hanawa Shobo.
<table>
<thead>
<tr>
<th>Status</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete Cure</td>
<td>21</td>
</tr>
<tr>
<td>Returned Home</td>
<td>7</td>
</tr>
<tr>
<td>No Follow-up</td>
<td>1</td>
</tr>
<tr>
<td>Death</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>37</strong></td>
</tr>
</tbody>
</table>

**Internal Medicine**
Dr. Inoue Gentan

**Ratio of Complete Cure out of Treated Patients**
a little more than 0.774

Source: “Records at the Hospital” (Yojojo Kakitome), First Day of December 1831 to the Last Day of November 1832.
Where this spirit has gone?
Prof. Iizuka
Faculty of Engineering, Univ. of Tokyo

Why is Japan in Recession? Productivity has not adapted to the New (Third) Industrial Structure

The Services Sector and the Healthcare Industry needs the “Toyota Way”

Customer Orientation
Standardization of Operations
The Big Paradigm Sift of Hospital Management

From Hospital Administration

```
"collapse of healthcare"
collapse of hospitals
```

To Strategic Management

```
"Toyota Way"
```

World of "Maestro"
PART 4

Future
Leadership Infrastructure Techniques and Cases

Step by Step Approach Required
2 leaders

Dr Naruo Uehara

National Demonstration Program 2000-2004

Dr Shuhei Iida

TQM Movement with industry
IT Big Bang in 2011

- Electric Claim of...
- Outcome Information Released
- Disease Management Maturated
- D P C (Japanese eC-R G)
- Expanded
- P 4 P ?
- One Patient One Life One Chart ?

Almost Sametime

Infrastructures Will be Established
Saiseikai Kumamoto Hospital

TQM Center

Clinical Pathway
Infection Control
Nutrition Support Team
Bed sore Control
Risk Management

Nerima General Hospital
Iizuka Hospital
etc
KYT
Kikenn Yochi Training
Danger Detection Training
Used for Industrial Hygiene
Safety Consciousness Development
Group Approach Problem Solving
Case Approach
QC for Safety Version
Basic & Steady STEPS from 5S to TQM

Building Positive Mind Set

Leadership Kaizen

5S

Organize Hospitals Work Environment Improvement

1.5yrs

Productivity Improvement

Reduce Waste Good Resource Usage

1.5yrs

Quality & Safety Improvement

Fit to Expectation By Patient, Employee & Standard

Integration

Total Quality Management

1.5yrs

1.5yrs

1.5yrs

RCA FMEA

Six Sigma

Benchmarking

BPR

TPM

POKAYOKE

JIT

Building Positive Mind Set

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Mapping out the roles of Risk Management and Patient Safety

Could be Conflict

Hospital Risk Management

Clinical Risk Management

Safety Management

Support
Clinical Risk Management

1. Evidence-based Medicine
2. Communication
3. Mediation
4. Teamwork
5. Legal Knowledge
Our Future is
Your Future
That is Our Future
Talk to you in/for 10 years
Table 1.2  Mortality Per Cent. in the Principal Hospitals of England: 1861

<table>
<thead>
<tr>
<th>In 106 Principal Hospitals of England</th>
<th>Number of Special Inmates on the 8th April, 1861</th>
<th>Average Number of Inmates in each Hospital</th>
<th>Number of Deaths registered in the Year 1861</th>
<th>Mortality per Cent. on Inmates</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 London Hospitals</td>
<td>4214</td>
<td>176</td>
<td>3828</td>
<td>89.84</td>
</tr>
<tr>
<td>12 Hospitals in Large Towns</td>
<td>1870</td>
<td>156</td>
<td>1555</td>
<td>83.16</td>
</tr>
<tr>
<td>25 County and Important Provincial Hospitals</td>
<td>2248</td>
<td>90</td>
<td>886</td>
<td>39.41</td>
</tr>
<tr>
<td>30 Other Hospitals</td>
<td>1135</td>
<td>38</td>
<td>457</td>
<td>40.23</td>
</tr>
<tr>
<td>13 Naval and Military Hospitals</td>
<td>3000</td>
<td>231</td>
<td>470</td>
<td>15.67</td>
</tr>
<tr>
<td>1 Royal Sea Bathing Infirmary (Margate)</td>
<td>133</td>
<td>133</td>
<td>17</td>
<td>12.78</td>
</tr>
<tr>
<td>1 Dane Hill Metropolitan Infirmary (Margate)</td>
<td>108</td>
<td>108</td>
<td>14</td>
<td>12.96</td>
</tr>
</tbody>
</table>

Source: Nightingale 1863.

[Image of Florence Nightingale]