

Interpretative Responsibility in Oncologic Imaging: Preserving the Core Value of Diagnostic Radiology

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Disclosure of Conflict of Interest

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**Title: Interpretative Responsibility in Oncologic Imaging:
Preserving the Core Value of Diagnostic Radiology**

Presenter: Yoko Satoh

The presenter declares no conflicts of interest related to this presentation.



1. The Japanese Healthcare System

1. Universal health insurance

Most medical services are covered by **public health insurance** in Japan.

2. Free Access

- **No gatekeeper** system
 - **Directly visit** any clinic or hospital of the patients' choice
- ※Additional fees may apply at large hospitals.

Age- and Income-Based Co-payment



Patients pay 10–30% medical costs, depending on **age** and **income**.

Additional Assistance



Reducing out-of-pocket medical expenses for **certain children and low-income persons**

Monthly Ceiling

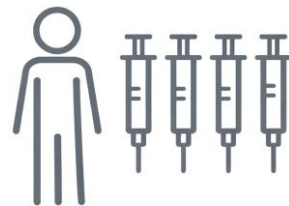


- **Monthly ceiling** for out-of-pocket costs based on age and income
- Overpayments **will be refunded** at a later date

2. Current issues for Both Patients and Radiologist

From the patient's perspective

- Long waiting times
- Short consultation time
- Limited explanation
- Repeated examinations across hospitals



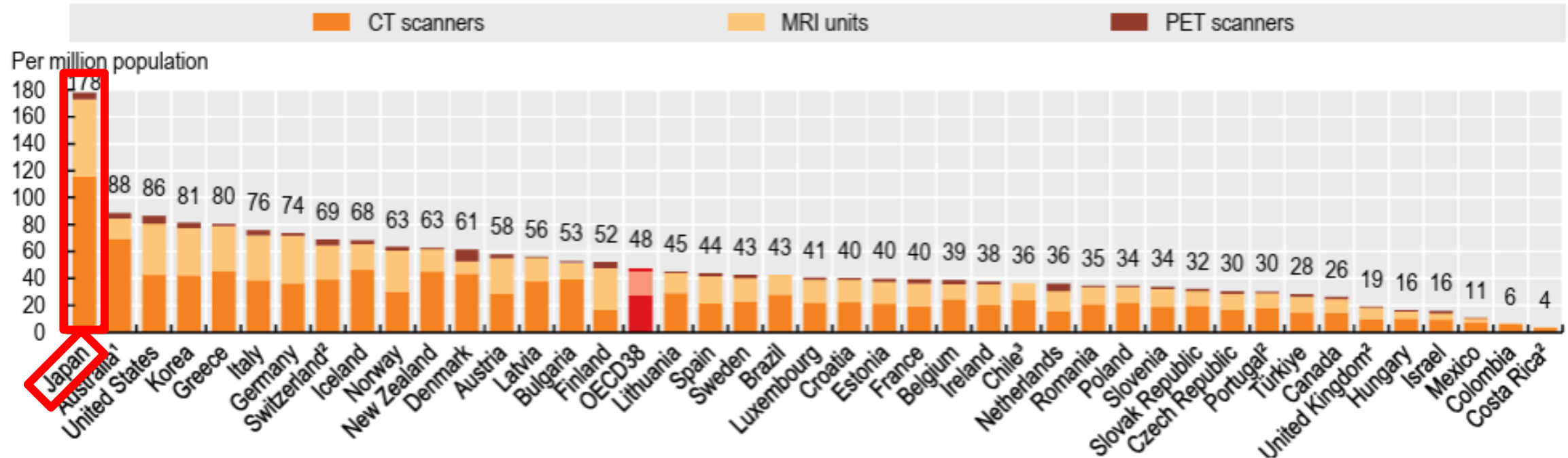
From the radiologist's perspective

- Increasing number of imaging examinations
- Decreasing time per case
- **Heavy workload for radiologists**



3. Structural Imbalance in Medical Imaging

Figure 5.23. CT scanners, MRI units and PET scanners, 2021 (or nearest year)



1. Data include equipment eligible for public reimbursement only. 2. Data exclude equipment outside hospital (only for MRI units in Switzerland). 3. Data refer to 2017 only.
Source: OECD Health Statistics 2023.

StatLink  <https://stat.link/xv92kr>

3. Structural Imbalance in Medical Imaging

	Japan		OECD or globe	
	Number ¹⁾	Scan price ²⁾	Number ¹⁾	Scan price ²⁾
CT ³⁾	116	60-70	28	250-1,200
MRI ³⁾	57	160-180	17	400-2,600
PET ⁴⁾	4-5	1,000	2	1,500-6,000
Radiologist ⁵⁾	5		9	
Workload ⁶⁾	6,130		1,440	

- A large number of CT and MRI scanners
- **Relatively low** scan prices



Increasing the number of imaging

1) Owned number Per 1 million people, 2) US dollars, 3) CT, MRI: no contrast media, chest and abdomen, 4) PET: ¹⁸F-FDG PET/CT, 5) Per 100,000 population
6) The workload of a radiologist : CT/MR examinations/year

OECD 2023, MHLW 2024, Lexa FJ. J Am Coll Radiol 2014

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Increasing the number of imaging

Increased risk of reduced quality in diagnostic imaging

1) Owned number Per 1 million people, 2) US dollars, 3) CT, MRI: no contrast media, chest and abdomen, 4) PET: ¹⁸F-FDG PET/CT, 5) Per 100,000 population
6) The workload of a radiologist : CT/MR examinations/year

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4. Why is Imaging Quality at Risk?

Radiologist



Limited time
for each case

Report



Making **comprehensive interpretation** more difficult

Patients and physicians



Only the report is visible

Report quality may decline unnoticed over time.

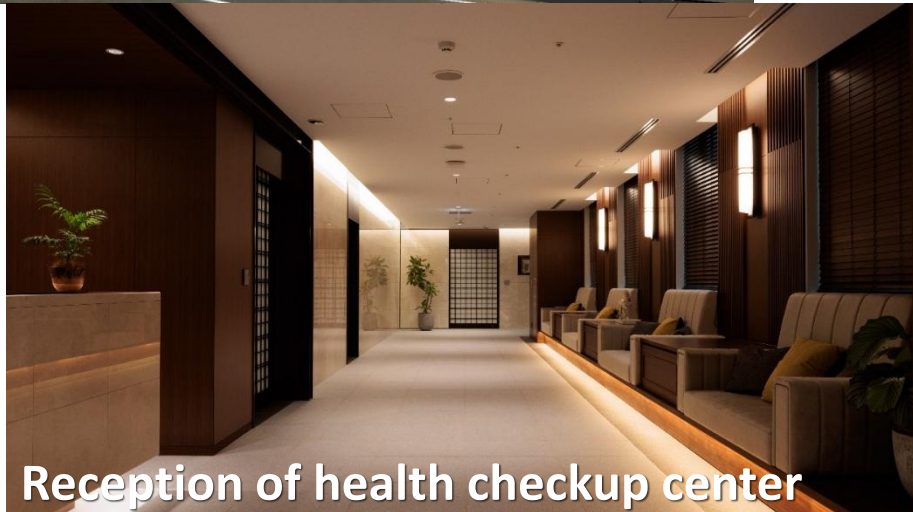


5. A Different Approach



- Fujita Medical Innovation Center located next to **Haneda Airport**
- Adoption of a self-pay model
- Focus on consultation-centered care

**Allow more time for
each patient and examination**



Reception of health checkup center



Private guest room



8. Communication-Centered Imaging

- Private consultation



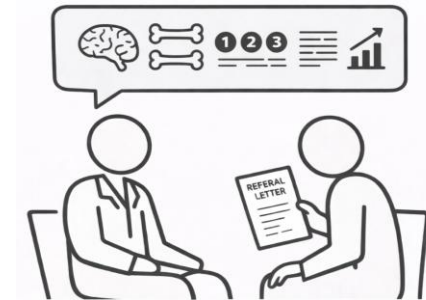
- Direct explanation



- Integration with not only multi-modal imaging but also clinical information

- Clinically meaningful reporting

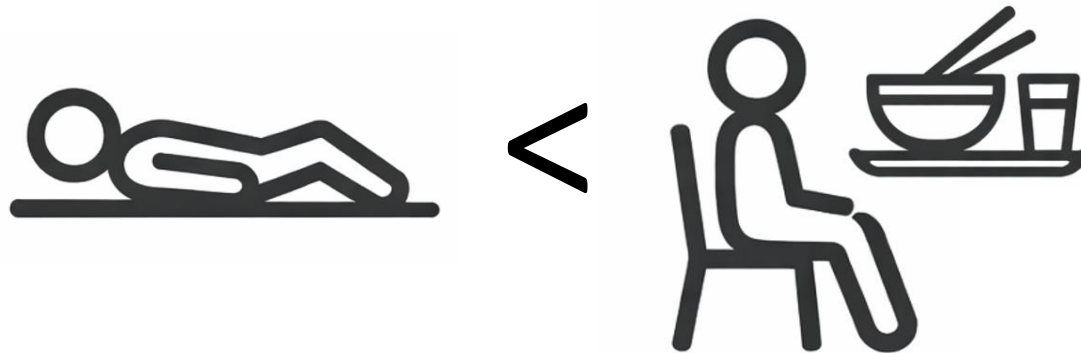
- **Communication**
- **Clinical decision-making**



We do not sell images. We design diagnostic imaging.

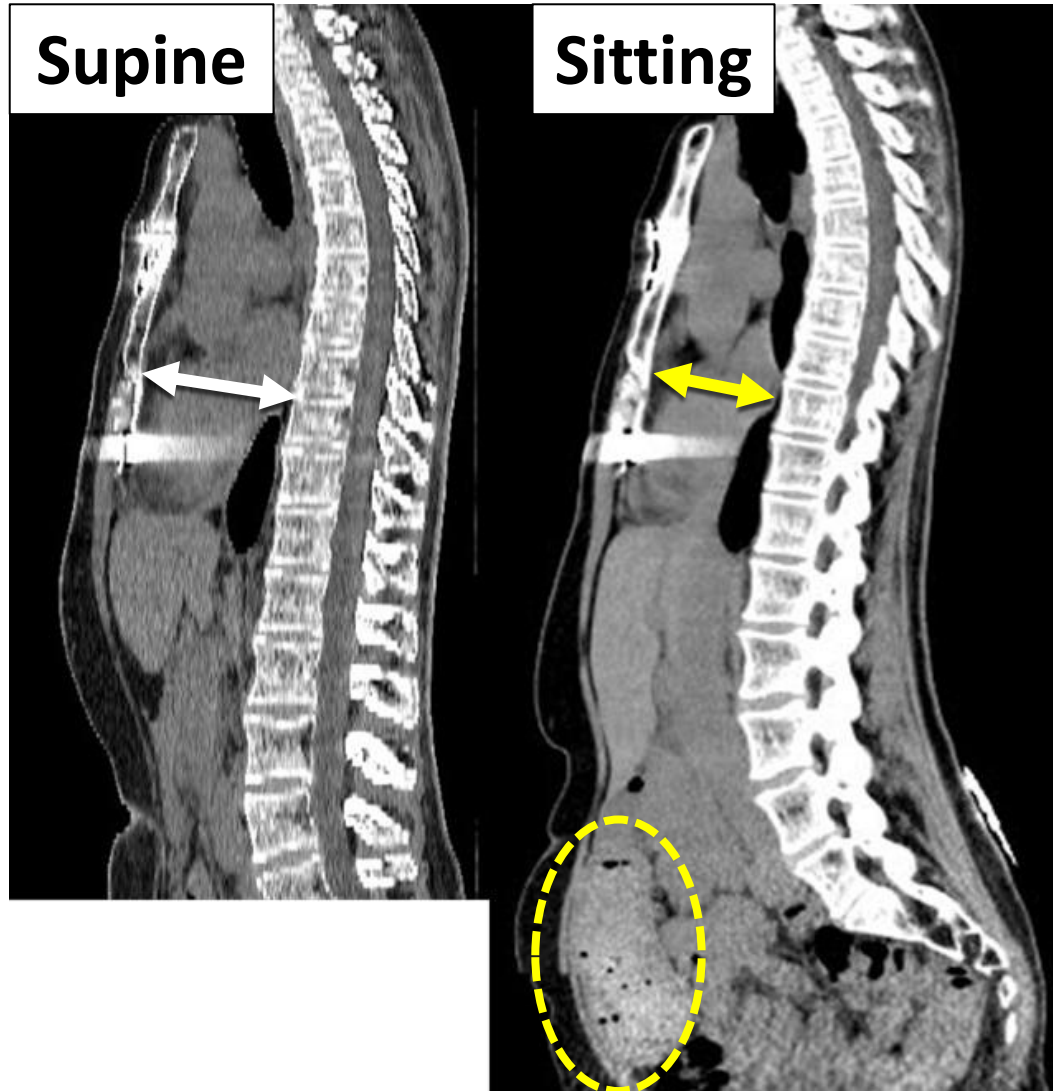
9. A Case of Responsibility-Based Imaging

- 52-year-old woman with postoperative *pectus excavatum*
- Dyspnea and abdominal distension worsened **after meals in the sitting position**
- Routine supine CT was insufficient to explain the symptoms
- Imaging performed in the **symptom-provoking position** using an **Upright CT** scanner.



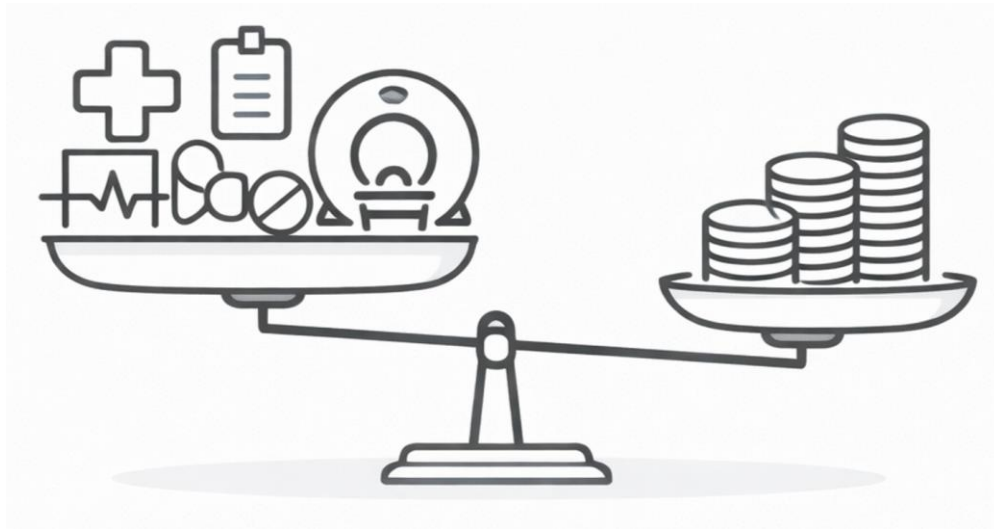
Upright CT (Canon)

9. A Case of Responsibility-Based Imaging



- **Key findings (compared with supine CT)**
 - ✓ Reduced sternum–vertebral distance
 - ✓ Marked gastric descent after meals
- **Outcome**
 - ✓ **Symptoms clearly explained by upright CT**

10. The Trade-off Behind High-Value Medical Care



- Clinical resources per patient increase
- As ***a trade-off***, patient's out-of-pocket costs **significantly exceed** the standard price covered by insurance

The question is how to integrate this model with Japan's current healthcare system.



12. Summary

- A new institutional approach to diagnostic imaging
- Preserving and improving the quality of diagnostic imaging

Thank you for your attention.

We welcome international colleagues to visit
and exchange perspectives.

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