Country Report

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Historical changes in mortality rate in Japan by major causes of death, 1947-2018 (per hundred thousand)

- Cancers
- Cardiac diseases
- Cerebrovascular diseases
- Pneumonia
- Tuberculosis
- Old age
- Suicide
- Hepatic Disease

5-year relative survival rate in cancers by organ in 2006-2008

https://ganjoho.jp/reg_stat/statistics/dl/index.html#survival
Cancer Precision Medicine Project (1/2)

Find cancer

Know the cancer's personality

Select drugs based on the cancer's unique property

Find the best drug to treat

Provide immunotherapy

- Introduce TCR T-cell therapy
- Cloning of the cancer-specific CTR
- Neoantigen vaccine

The key for practical application is to develop artificial intelligence
Extracting useful information from an enormous amount of information
Providing the latest medical information to patients, physicians and health professionals
Building a patient-friendly and interactive informed consent system

* From the JMA Seminar lecture by Prof. Yusuke Nakamura (Sept 18, 2018)
Cancer Precision Medicine Project (2/2)

Find cancer cells

Find the best drug to treat

Provide immunotherapy

Find cancer

Know the cancer's personality

Select drugs based on the cancer's unique property

Introduce TCR T-cell therapy

Cloning of the cancer-specific CTR

Neoantigen vaccine

None of the above

The key for practical application is to develop artificial intelligence
Extracting useful information from an enormous amount of information
Providing the latest medical information to patients, physicians and health professionals
Building a patient-friendly and interactive informed consent system

* From the JMA Seminar lecture by Prof. Yusuke Nakamura (Sept 18, 2018)
Tasuku Honjo, M.D.
Professor, Graduate School of Medicine and Faculty of Medicine Kyoto University
The Nobel Prize in Physiology or Medicine 2018

Prize motivation: "for their discovery of cancer therapy by inhibition of negative immune regulation."
1. The effectiveness of immunotherapy, mainly PD-1 inhibitors, will improve.

2. Immunity can basically cure all cancer.

3. Though it may never disappear completely, a carcinoma may not grow further. Cancer will be a chronic disease that can be controlled.

* From the special lecture by Dr. Honjo at the 71st JMA Anniversary Ceremony & Medical Congress (Nov. 1, 2018)
Cancer Treatment Regional Core Centers (Core Hospitals)

Regional Childhood Cancer Core Centers

Main Institution for childhood cancer

Regional Cancer Treatment Core Centers

Advisory board

National Cancer Center

National Center for Child Health and Development

Prefectural Cancer Treatment Core Centers

Area-Specific Cancer Treatment Core Centers

Cancer Treatment Core Centers: 392 hospitals
Regional Cancer Centers: 36 hospitals
(As of Apr 1, 2019)

Purpose of installation:
➢ To be adolescents, and able to provide high-quality cancer treatment anywhere in the country.
➢ To be able to provide holistic high-quality cancer treatment and support for small children, adolescents, and young adults

Offers various training
Holds a meeting for the Prefectural Cancer Treatment Core Center Liaison Council, etc.
Building a Regional Network

Establishing a community system that supports cancer patients
1. Cancer research
2. Human resource development
3. Cancer education & outreach

Regional palliative care coordinators

Health insurance pharmacies
Governments
Local medical associations
Home nursing stations
Local medical institutions
Healthcare organizations
Cancer Treatment Core Centers
National Cancer Center
Home
Patient/family
School education
Patient groups

Consultation Support
Support for the balance between treatment and daily life
Cancer Consultation & Support Centers
What are heavy ion radiotherapy and proton radiotherapy?

- Both treat cancer using advanced medical technology as defined by Minister of Health, Labour and Welfare (aka. “advanced medicine”)

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<th>Technical overview</th>
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| **Heavy ion radiotherapy** | A treatment method in which a heavy ion (carbon ion) beam irradiates a lesion from outside the body | • Pulmonary/mediastinal tumor  
• Gastrointestinal tumor  
• Hepatic/biliary/pancreatic tumor  
• Urological tumor  
• Mammary gland & gynecological tumors  
• Metastatic tumor  
(Only when radical treatment is feasible) |
| **Proton radiotherapy**   | A treatment method in which a particle (proton) beam, a type of radiation, irradiates a lesion to treat malignant tumor | • Head/neck tumor (incl. brain tumor)  
• Pulmonary/mediastinal tumor  
• Gastrointestinal tumor  
• Hepatic/biliary/pancreatic tumor  
• Urological tumor  
• Mammary gland & gynecological tumors  
• Metastatic tumor  
(Only when radical treatment is feasible) |

* From Overview of Different Technology in Advanced Medicine by Ministry of Health, Labour and Welfare
Medical institutions that provide advanced medicine (heavy ion and/or proton)

(As of June 1, 2019)

- **Heavy ion**: 6 medical institutions
- **Proton**: 17 medical institutions

**Heavy ion**
- Hyogo Ion Beam Medical Center
- University Hospital, Kyoto Prefectural University of Medicine
- Aizawa Hospital
- SAGA Heavy Ion Medical Accelerator in Tosu
- Osaka Heavy Ion Therapy Center
- Osaka Proton Therapy Clinic

**Proton**
- QST Hospital (Former NIRS Hospital)
- National Cancer Center Hospital East
- Kanagawa Cancer Center
- Shizuoka Cancer Center
- Sapporo Teishinkai Hospital
- Narita Memorial Proton Center
- Kouseikai Takai Hospital
- Nagoya City West Medical Center
- Osaka Proton Therapy Clinic

*From The List of Medical Institutions That Offer Advanced Medicine (MHLW)*
Health Professional Meeting (H20) 2019  (1/4)
-Road to Universal Health Coverage-
June 13th & 14th, 2019
Hilton Tokyo Odaiba, Tokyo
Health Professional Meeting (H20) 2019 (2/4)
-Road to Universal Health Coverage-
June 13th & 14th, 2019
Health Professional Meeting (H20) 2019  (3/4)
-Road to Universal Health Coverage-
June 13th & 14th, 2019
Hilton Tokyo Odaiba, Tokyo
Memorandum of Tokyo on Universal Health Coverage and the Medical Profession

- UHC is a tool to overcome inequities in the health systems themselves.
- UHC is for people, but also by people.
- The WMA encourages physicians and their associations in all parts of this world to play a profound role in the advocacy for and the realization of UHC.
- We welcome the recent attention that G20 Finance Ministers give to the development of UHC as a contribution “to human capital development, sustainable and inclusive growth and development, and prevention, detection and response to health emergencies, such as pandemics and anti-microbial resistance, in developing countries.”
- We express our expectation to the G20 Summit that this inspires the way to improved and sustainable investments in health care system not only in G20 countries but also and most importantly in other economies, which still invest insufficiently in their health care systems, irrespective of the reasons for such shortfalls.

https://www.mof.go.jp/english/international_policy/convention/g20/communique.htm
https://www.mof.go.jp/english/international_policy/convention/g20/annex8_1.pdf
Thank you for your attention.