EVRMC, Tacloban, the Philippines
May 20, 2009

Infection Control for Pandemic Flu at Tohoku University Hospital
- including the strategies in Sendai city and Miyagi Prefecture -

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Associate Professor, C-MERMAID
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Tohoku University Graduate School of Medicine

Yoichi Hirakata, MD, FJSIM, Ph.D
1. Recent situation of H1N1 swine flu in Japan

2. Infection control against pandemic flu at Tohoku University Hospital

3. Strategies for Infection control against pandemic flu by Sendai City and Miyagi Prefecture
1. Recent situation of H1N1 swine flu in Japan

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H1N1 swine Influenza

- April 26: Japanese Prim Minister established the Emergency Team
- April 27: Emergency Meeting against Pandemic flu at the Government
- April 28: WHO Phase 4
- May 1: WHO Phase 5
Probable cases had been reported in Japan.

The World Health Organization sends out a 'strong signal that a pandemic is imminent'.

Source: WHO, government figures, CDC, news agencies.
New Influenza A (H1N1),
Number of laboratory confirmed cases and deaths as reported to WHO

Status as of 19 May 2009
06:00 GMT

update 33, 19 May 6:00 GMT

40 countries, 9,830 patients, including 79 death

The boundaries and names shown and the designations used on these maps do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

Map produced: 19 May 2009 07:35 GMT
CDC started the report including provable cases from May 14, 2009

May 15, 2009, 11:00 AM ET
4,714 Confirmed and probable Cases in 44 States, including 4 death

*This map indicates geographic spread and does not measure the severity of influenza activity.*
An episode on May 11 (Mon), 2009

Before 9 AM, a call from a teacher to our department “A Tohoku University student got a fever over 39 °C, who had returned from Minnesota on May 3, 2009.

11:22 1st call from Professor Kaku “taking him to Sendai City Hospital since he fulfilled the case definition”

12:04 2nd call from Professor Kaku “he was negative for flu A/B detection kit and was quarantined at home”
The information on patients suspected to have swine flu prior to the first confirmed cases until May 7, 2009

- 15 patients fulfilled the case definition and examined with RT-PCR.

- Some of them were confirmed to have seasonal flu.

- Only 4 patients were screened by medical inspection (a shoreline operation) in the plane at international airports. The others started to complain of flu-like symptoms at several places after they got out the planes.
The first imported cases diagnosed on May 7, 2009

- Three students and an attending teacher of a high school in Osaka Prefecture, who visited the friendship school in Canada and returned by NW 25 from Detroit were diagnosed H1N1 swine flu.

- A student and the teacher screened by medical inspection in the plane at Tokyo Narita International Airport, and were hospitalized.

- Several passengers seated around the two patients were quarantined for 7 days at hotels around the airport.

- Another student complained of flu-like symptoms after he got out the plan and was also hospitalized.
The first imported cases diagnosed on May 7, 2009(2)

- The other student was found to be positive during the quarantine.
- Several passengers seated around the third patient were surveyed and were confirmed to be negative.
- No students in the high school in Canada were positive.
- May 15, 47 of 48 people were freed from quarantine within hotels.
- May 16, One of the student patient with swine flu discharged.
- May 17, Another student and the teacher with swine flu discharged.
- May 19, the other student with swine flu discharged.
The seats of the first three patient on NW25 from Detroit to Tokyo Narita

May 10. 2009 The Asahi Shimbun
The first infections in Japan found on May 16, 2009

- 8 students of two high schools in Kobe City, Hyogo Prefecture found to be positive for swine flu. Several students had been diagnosed as seasonal flu from May 12, 2009.

- 9 high school students in Ibaragi City, Osaka prefecture found to be positive for swine flu. Around 100 students and teachers (high and junior high school) complained of several symptoms.

- No certain travel record, no certain contact with people of returning recently from countries associated with swine flu.

- 17:36 May 17, A total of 28 people was reported as positive.

- 19:07 May 17, A total of 40 people was reported as positive.
The first infections in Japan found on May 16, 2009

- 2:17 May 18, A total of 96 people was reported as positive.

- May 19, A total of patients increased to 130 people, including children and adults, in addition to high school students

- May 20, 1:00, A total of patients increased to 193 people

- So far, the patients localized in two neighboring prefectures

- A lot of activities were stopped (temporary closing of schools, sports matches, medical congresses, concerts, e.t.c.)
The first infections in Japan
Follow-up information

- Hyogo Prefecture started confirmation test by RT-PCR in addition to National Institute for Infectious Diseases (NIID), Tokyo

- Kobe City has changed to the system of care for patients with swine flu

  All patients have to be hospitalized in the specific hospitals
  ↓
  Stay home (no death, no enough beds)

- The Government will soon stop medical inspection (a shoreline operation) in the plane at international airports.
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Tohoku University Hospital

58 Departments and 1,300 beds
Infection Control at Tohoku University Hospital

1) Committee on Infection Control
Chief: Professor Mitsuo Kaku

Members:
The Head of Hospital
Professor Akira Watanabe (respiratory physician)
The Chief Nurse, e.t.c.

2) Subcommittee on Infection Control
Chief: Professor Akira Watanabe

Members:
Several HCWs belong to each departments (including Drs. Hirakata, and Kunishima), e.t.c.

3) Pandemic Flu
Correspondence Working Group, since August, 2008
Chief: Dr. Yoichi Hirakata

Members:
Several HCWs,
Professor Hitoshi Oshitani,
Drs. Akira Suzuki,
and Taro Kamigaki
3) Pandemic Flu Correspondence Working Group

Chief: Dr. Yoichi Hirakata

4) Flu Consultation Working Group

Chief: Dr. Nara (General Medicine)
Sub-Chiefs: Dr. Hirakata and Dr. Sasaki (ER)

Members:
Several HCWs
Decision of roles of staff
- Professor Kaku’s group, April 28, 2009 -

Meetings of Sendai City, Miyagi Prefecture, and University; Professor Kaku (observers; Drs. Hirakata, Kunishima, and et al)

University Hospital; Dr. Hirakata WPRO; Drs. Kunishima & Hirakata

Public relations (including correspondence to mass communication); Professor Kaku & Dr. Hirakata

Poster, handout, e.t.c.; Drs. Yamada, and Hatta, et al.

Educational Materials; Drs. Yano, Arai, et al.

Lectures (Tohoku University Hospital, Tohoku University, Affiliated hospitals, the Medical Associations, and citizen); all members
<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 2, 2008</td>
<td>1st Pandemic flu working group meeting</td>
</tr>
<tr>
<td></td>
<td>(Lecture by Professor Oshitani)</td>
</tr>
<tr>
<td>December 24, 2008</td>
<td>2nd Pandemic flu working group meeting</td>
</tr>
<tr>
<td></td>
<td>(Lecture by Dr. Taro Kamigaki)</td>
</tr>
<tr>
<td>March 31, 2009</td>
<td>Published the guidelines for pandemic flu</td>
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<tr>
<td>April 28, 2009</td>
<td>Emergency meeting for Infection Control</td>
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<tr>
<td>April 28, 2009</td>
<td>Revised the guidelines for pandemic flu, included swine flu</td>
</tr>
<tr>
<td>April 28, 2009</td>
<td>Called on voluntarily refrain from traveling outside of Japan</td>
</tr>
<tr>
<td>April 30, 2009</td>
<td>3rd Pandemic flu working group meeting</td>
</tr>
<tr>
<td>April 30, 2009</td>
<td>Printed and placed the posters for the patients</td>
</tr>
</tbody>
</table>
3rd Pandemic flu working group April 30, 2009

- Share accurate information by education to both patients and staff (Lecture by Dr. Akira Suzuki)

- How to break up the jobs

- Keep antigen detection kits

- Keep anti-flu drugs

- Keep antibiotics for secondary bacterial infections

- Establish flu consultation sub-working group
インフルエンザに関するお願い

現在、メキシコ、米国を中心にインフルエンザによるヒト感受症及びヒト-ヒト伝播が報告されています。患者様の皆様の理解とご協力をお願いいたします。

心より、周囲の皆様に感染を防ぐため、次の点を守っていただきたいと思います。

1. 頻繁に手洗い
2. 咳やク rootNodeを避ける
3. 体調不良の場合は医療機関に相談

詳細は、感染症対策本部で発表いたします。ご理解を賜りますようお願い申し上げます。
Important notice about the new influenza

23 countries including Mexico, USA and Canada have officially reported 1893 cases of the new influenza (influenza A[H1N1]) infection. We really appreciate for your cooperation in order to maintain the medical care system for the community.

| Countries which have reported the patients of the new influenza (6 May 2009): Mexico, the United States, Canada, Austria, China, Hong Kong Special Administrative Region, Costa Rica, Colombia, Denmark, El Salvador, France, Germany, Guatemala, Ireland, Israel, Italy Netherlands, New Zealand, Portugal, Republic of Korea, Spain, Sweden, Switzerland and the United Kingdom. |

| If you have cold-like symptoms (fever, cough, sore-throat, etc) and meet at least one of the criteria showing below: (1) who entered Japan in recent 10 days from the endemic area for he new influenza, (1) who met the person who entered Japan from the endemic area for the new influenza and has cold symptoms, (3) who are worried about having gotten the new influenza, please contact the health center of your residential area first, not to come directly to Tohoku University Hospital. |
The guidelines for pandemic flu, against Avian H5N1, Swine flu, and Others based on the Past Pandemics (ver. April 28, 2009)

Introduction
Prior to Pandemic in Japan

I. Avian H5N1

II. Swine flu

Pandemic in Japan

III. Similar to Recent Pandemic (57’, 68’, and 77’)  

IV. Similar to Spanish flu

V. Human to human Infection of H5N1

Contact addresses

Interpretations of Words

What’s PPE? How to use PPE

Diagnosis and procedure clinical samples
Activities at Tohoku University Hospital (2)

May 1, 8, and 12, 2009  Workshops in the hospital
(Drs. Endo, Kanamori, and Ishibashi)

May 9, 2009  Called on forbid in principle from traveling to Mexico, the United States, Canada, the United Kingdom, and Spain, otherwise home quarantine for 7 days after returning to Japan will imposed
Report system of the physical conditions for 7 days after returning to Japan from any countries, using checking sheet

May 13, 2009  1st Flu-consultation sub-working group meeting
May 15, 2009  Distribution of papers for out- and in-patients
May 15, 2009  Secret meeting for Flu-consultation
May 21, 2009  2nd Flu-consultation sub-working group meeting
Update Information on Pandemic Flu & Basic Infection Control

Head, Pandemic Flu Working Group, Tohoku University Hospital
Associate Professor, C-MERMAID
(Department of Clinical Microbiology with Epidemiological Research & Management and Analysis of Infectious Diseases)
Tohoku University Graduate School of Medicine

Yoichi Hirakata, MD, FJSIM, Ph.D
Important Points

- This is not the first pandemic of swine flu (ex; 1976 in the U.S.)
- So far, low virulent
- Flu is weak for heating, acid, alcohol, e.t.c.
- So far no resistant against neuraminidase inhibitors, such as Oseltamivir (Tamiflu™) and Zanamivir (Relenza™), but resistant against Amantadine (Symmetrel™)
Anti-flu drugs

Amantadine (Symmetrel™)
Zanamivir (Relenza™)
Oseltamivir (Tamiflu™)
Important Points (2)

- Keep the current medical systems of each department to see patients as usual
- Keep safety of patients and staff
- Share accurate information in common
- Avoid too much load for specific department or staff
- Correspond to this matter by a big team (whole staff of the hospital)
May 15, 2009 Secret meeting for Flu-consultation

1. Decision of the place to see patients and different movement lines for patients and staff - daytime of weekdays, and night and weekends

2. Establishment of consultation systems - doctors, nurses, antigen-detection test, chest X-ray - daytime of weekdays, and night and weekends

3. Decision of the equipments, such as air cleaner, pulse oxy-meter, non-contact thermometer

4. Settlement of the questionnaire sheet for physical condition, for patients after traveling, and contact to travelers (in Japanese and in English)

5. If in-patients got swine flu?

6. If pandemic occur in Sendai City?
Standard Precautions

• **Hand hygiene**
  – Before and after contact with each patient
  – After removing gloves or other PPE

• **PPE**
  – Based on risk assessment to avoid contact with blood, body fluids, excretions, secretions
  – Gloves (plus face-shields, masks or gowns if splashes are anticipated) for any contact with blood, moist body substances (except sweat), mucous membranes or non-intact skin

• **Respiratory hygiene and cough etiquette**
Hand Hygiene - Hand Washing
Children younger than 5 years in households that received plain soap and handwashing promotion had a 50% lower incidence of pneumonia than controls (95% CI –65% to –34%). Also compared with controls, children younger than 15 years in households with plain soap had a 53% lower incidence of diarrhoea (–65% to –41%) and a 34% lower incidence of impetigo (–52% to –16%).
Subjects and Methods

Subjects: The family with at least 2 kids under 15-year-old, and under 5 year-old at least one of them.

Materials: 1) common hand soap: 300 families
           2) hand soap containing antibiotic: 300 families
           3) non (control): 306 families

Hand washing: After washroom, before cooking, before eating, before giving foods to smaller kids (help for kids under 5-year-old by elder family members)

Observation: One year
Effect of Hand washing for Prevention of;

Decrease of upper respiratory infections

No difference between common soap and soap containing antibiotic

*Luby SP. Lacnet 366:225-33, 2005*
Effect of Hand washing for Prevention of; Decrease of pneumonia among kids under 5-year-old

No difference between common soap and soap containing antibiotic

*Luby SP.* *Lacnet* 366:225-33, 2005
Effect of Hand washing for Prevention of;

Control  Pneumonia  Diarrhoea  Impetigo

Luby SP. Lacnet 366:225-33, 2005
Hygienic handwashing

- a liquid soap and running water
  - visibly dirty
  - contaminated with blood, other body fluids
- an alcohol-based hand rub
  - not visibly dirty
  - when you can not use running water
A lot of bacteria on the surface of hands - normal flora and transit bacteria -

Culture media for Hands

Microorganisms could be spread by the Hands of the HCWs
Hand Hygiene Prevents Respiratory Infections

Among Navy recruits
- Handwashing program implemented at a Navy training center.
- 45% reduction in outpatient visits for respiratory illness.
- Frequent hand washers had fewer respiratory illnesses.

Among students in residence halls
AJIC 2003;31:364-70
- College dorms were randomized to having alcohol hand rubs in various locations vs. not.
- Hand rub groups had:
  - 15%-40% reduction in respiratory illnesses
  - 43% fewer sick days
## Effect of Hand Washing

<table>
<thead>
<tr>
<th>Method</th>
<th>Reduction Rate of Microorganism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soap and water</td>
<td>15sec: $1/4 \sim 1/13$</td>
</tr>
<tr>
<td></td>
<td>30sec: $1/60 \sim 1/600$</td>
</tr>
<tr>
<td>Alcohol</td>
<td>30sec: $1/3000$</td>
</tr>
<tr>
<td></td>
<td>1min: $1/10,000 \sim 30,000$</td>
</tr>
</tbody>
</table>

Use of Alcohol is more effective for reduction of microorganism. Wash hand by flowing water when there invisible dirt.
Important Points in Hand Hygiene

- Alcohol does not work enough if your hands are sweaty, and/or dirty.

- While you are wearing gloves, your hand becomes sweaty, and bacteria will grow.

- When you remove the gloves, your hands may be contaminated.
CLEAN HANDS SAVE LIVES
Protect patients, protect yourself

Influenza
Staphylococcus
Candida
RSV
Klebsiella
Pseudomonas
Enterococcus

Alcohol-rub or wash before and after EVERY contact.

www.cdc.gov/handhygiene
Hand Hygiene Technique with alcohol-based rub
3 Major Modes of Human-to-Human Transmission

- Airborne
- Droplet
- Contact

source of infection
susceptible host
Isolation Precautions in HC

• **Standard Precautions**
  - Routine precautions to be applied in all situations for all patients

• **Additional Precautions**
  - For specific patients/diseases
    - Contact Precautions
    - Droplet Precautions
    - Airborne Precautions
Transission Based Precautions

Influenza

- Droplet Precautions
- Contact Precautions
- Standard Precautions
Contact Transmission

- The most important and frequent mode of transmission of nosocomial infections:
  - Direct–contact
  - Indirect-contact (including flu)

- Direct-contact Transmission involves a direct body surface-to-body surface contact

Infected or colonized person $\rightarrow$ Physical Transfer Of organisms $\rightarrow$ Susceptible host
Droplet infection vs. Airborne infection

Airborne infection
- TB
- Measles
- Chickenpox

Diameter 5μm ≥
Falling Velocity 0.06-1.5cm/sec

Droplet infection

Water

Diameter 5μm ≤
Falling Velocity 30-80cm/sec

(Phote: William Harris: Natural history of pulmonary tuberculosis)
Droplet Transmission

- Droplets are generated from the source (person) during:
  - Coughing
  - Sneezing
  - Talking
  - Certain procedures (eg. Suctioning and Bronchoscopy)

Droplet Transmission

- Influenza
- Mycoplasma pneumonia
- Mumps
- Rubella
- Meningococcus
Types of Mask

• Surgical mask
  – Reduce wearer’s exposure risk
  – Product against pathogen from wearer

• N95 respirator
  – Filtering particle and to reduce wearer’s exposure risk
How to wear a Surgical mask?

1. Bend the nasal bar
2. Put the chin into the mask
Recommendation to use masks for HCWs

Therefore, the use of surgical masks is considered beneficial and is recommended for all health-care workers who will work within 3 feet of patients who are considered potentially infectious with pandemic influenza. (WHO)
Respiratory Hygiene/Cough Etiquette

• Educate persons with respiratory infection to:
  – Cover their cough
  – Dispose of used tissues in waste containers
  – Use a mask when coughing if available
  – Perform hand hygiene after contact with respiratory secretions
  – Distance oneself from others, at least 3 feet away
Important Notice to All Patients

Please tell staff immediately if you have flu symptoms.

1. Cover your cough and sneeze
   - Use a tissue to cover your mouth and nose when you cough or sneeze.
   - Drop your used tissue in a waste basket.
   - You may be asked to wear a mask if you are coughing or sneezing.

2. Clean your hands
   - Wash your hands with soap and warm water or clean with gels or wipes with alcohol.
   - Cleaning your hands often keeps you from spreading germs.

CDC’s new guideline for Healthcare Associated Infection
Evidence based infection control


Effectiveness of precautions against droplets and contact in prevention of nosocomial transmission of severe acute respiratory syndrome (SARS).

<table>
<thead>
<tr>
<th>Protective measures</th>
<th>Infected Staff (n=13)</th>
<th>Non-infected staff (n=241)</th>
<th>p*</th>
<th>Odds ratio (95% CI)†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masks§</td>
<td>2 (15%)</td>
<td>169 (70%)</td>
<td>0.0001</td>
<td>13 (3–60)</td>
</tr>
<tr>
<td>Paper mask</td>
<td>2</td>
<td>26</td>
<td>0.511</td>
<td></td>
</tr>
<tr>
<td>Surgical mask</td>
<td>0</td>
<td>51</td>
<td>0.007</td>
<td></td>
</tr>
<tr>
<td>N95</td>
<td>0</td>
<td>92</td>
<td>0.0004</td>
<td></td>
</tr>
<tr>
<td>Gloves</td>
<td>4 (31%)</td>
<td>117 (48%)</td>
<td>0.364</td>
<td>2 (0.6–7)</td>
</tr>
<tr>
<td>Gowns</td>
<td>0 (0%)</td>
<td>83 (34%)</td>
<td>0.006</td>
<td>NC</td>
</tr>
<tr>
<td>Hand-washing</td>
<td>10 (77%)</td>
<td>227 (94%)</td>
<td>0.047</td>
<td>5 (1–19)</td>
</tr>
<tr>
<td>All measures</td>
<td>0 (0%)</td>
<td>69 (29%)</td>
<td>0.022</td>
<td>NC</td>
</tr>
</tbody>
</table>

NC=not calculable. *Two-tailed. †Odds ratio of staff with specific protection not getting infected. §"Yes" and "most of the time" were grouped together. ¶Total cases 254 by forward stepwise (Waldesian) logistic regression using 0.05 as entry probability and 0.10 as removal probability. Forward and backward stepwise regression result in same model with mask in the model (p=0.011). Comparing proportion of infected over non-infected staff, with those without mask (11 infected and 72 non-infected).

Table 2: Protective measures reported by infected and non-infected staff

Droplet precautions is effective for Healthcare setting
Evidence based infection control

In health-care settings, studies evaluating measures to reduce the spread of respiratory viruses suggest that the use of masks could reduce the transmission of influenza. Advice on the use of masks in health-care settings is accompanied by information on additional measures that may have impact on its effectiveness, such as training on correct use, regular supplies and proper disposal facilities. In the community, however, the benefits of wearing masks has not been established, especially in open areas, as opposed to enclosed spaces while in close contact with a person with influenza-like symptoms.

Prepared health professionals and the public for a flu pandemic has been the subject of much research worldwide, and governments and public health departments have published various recommendations over the past five years. One aspect of the clinical management of respiratory viruses—namely barrier methods to reduce transmission—is assessed in the accompanying systematic review by Jefferson and colleagues. This review found that handwashing and wearing, masks, gowns, and gloves were effective individually in preventing the spread of severe acute respiratory syndrome, and even more effective when combined (odds ratio 0.09, 95% confidence interval 0.02 to 0.35; number needed to treat (NNT)=3, 2.66 to 4.97). The incremental effect of adding virucidal or antiseptics to normal handwashing to reduce respiratory disease was uncertain.

Because pandemic flu is such a potentially catastrophic event, governments worldwide should have commissioned such a review many years ago and not have left it to the academic community to take the lead. The academic community needs to educate governments that expert advice is not necessarily the best advice. Guidelines should be based on rigorous systematic reviews and need to be continuously updated.

Government and international websites such as the World Health Organization website on the status of pandemic flu (www.who.int/csr/disease/avian_influenza/phase/en/index.html) are of some help in keeping health professionals up to date with the latest information. However, regularly updated evidence based guidelines containing levels of recommendation and, where possible, measures of effectiveness such as NNT would be very much more helpful to front line clinicians. Guidelines also highlight where the strength of the evidence is weak and more research is needed. We have an annually updated guideline on the management of hypertension, and it reflects badly on the consistency of knowledge translation that one is not available for influenza.

The messages distributed by governments about how to reduce the spread of respiratory viruses have not been shown to be wrong, although some are not supported by evidence. Jefferson and colleagues’ review will allow the effectiveness of the interventions
Demonstration & Practice

1. How to wear surgical mask properly?

2. How to clean your hands up with alcohol-based hand rub?

3. How to remove your gloves?
1. Recent situation of H1N1 swine flu in Japan

2. Infection control against pandemic flu at Tohoku University Hospital

3. Strategies for Infection control against pandemic flu by Sendai City and Miyagi Prefecture
Topics of Tohoku University, Sendai City, and Miyagi Prefecture on H1N1 swine flu

April 28, 2009  1st Sendai Medical Network

April 30, 2009  Review of the Plan by Miyagi Prefecture for Pandemic flu

May 9, 2009    Called on voluntarily refrain from traveling outside of Japan

May 1, 2009    Establishment of Risk Management Office for Pandemic Flu of Tohoku University, and 1st meeting
Topics of Tohoku University, Sendai City, and Miyagi Prefecture on H1N1 swine flu (2)

May 1, Survey of travelers of students and staff of Tohoku University

May 7, Lecture for Ph.D course of the Department of Pharmaceutical Department (Dr. Yoichi Hirakata)

May 9, Strong call on voluntarily refrain from traveling outside of Japan & Report system of the physical conditions for 10 days after returning to Japan from any countries, using checking sheet

May 13, 2nd Sendai Medical Network

May 18, Lecture for the Department of Medicine (Professor Hitoshi Ohitani)
Miyagi Cardiovascular & Respiratory Center (8 in 50 TB wards in the detached bldg.)

Osaki Citizen Hospital (6)

Kesennuma City Hospital (4)

Miyagi Prefecture

Yamagata Prefecture

Ishinomaki Red Cross Hospital (4)

Sendai City Hospital (8)

Sendai Airport

Katsuta General Hospital (4)

Fukushima Prefecture

Only 26 beds in Miyagi Prefecture with a population of 2,335,562

Of 26, 8 beds in Sendai City with a prefecture of 1,031,964
Lectures at Main Affiliated Hospitals

May 11, Miyagi Cardiovascular & Respiratory Center (Dr. Hirakata)

May 15, Minami Tohoku Hospital (Dr. Ishibashi)

May 20 & 25, Ishinomaki Red Cross Hospital (Dr. Yamada)
50th Annual Meeting of SIENTAS, NEUROLOGICA JAPONICA will be held in Sendai City between 20 and 22 May, 2009

A total of 4,000 people, including several oversea guests were invited, would gather to the meeting. The President Professor Itoyama, Department Neurology, Tohoku University is worrying about swine flu.
We have suggested:

1) Through the web and by email, ask the participants to bring their own surgical masks
2) Prepare back-up 3,400 surgical masks
3) Announce by posters and handouts for asking masks and call ward
4) Prepare alcohol-based hand rub, and make the hand hygiene corner
5) Utilize the questionnaire sheet for physical condition, traveling, and contact to travelers (Japanese and English)
6) Receptionist may have higher risk than others, so they should wear masks.
Patients visited Sendai City Hospital as suspected to have swine flu up to May 17, 2009

- 7 suspected patients visited.

- Of 7, 2 were positive for flu A by antigen detection kit but were finally diagnosed as seasonal flu.
Attract and notable Sendai System for Pandemic Flu

Image by the Government

Image by Sendai city
Topics of Tohoku University (3)

May 19, Stop the call on voluntarily refrain from traveling outside of Japan and home quarantine

Just build up the continuous system for monitoring the physical conditions of students and staff
Principle of Infection Control

- Do not get infections
- Do not transmit

Cough etiquette – Mask – Hand hygiene – Drugs/vaccine

Combine common infection control techniques!
site. Let your Web site visitors know how to stop the spread of H1N1 Flu (swine flu) to get more information about H1N1 Flu (swine flu). To add the button, copy the image and paste it into your Web page.

Copy this code for this "Cover it!" button (300x250):

www.cdc.gov/h1n1flu

Copy this code for this "Cover it!" button (300x250):

www.cdc.gov/h1n1flu
Take Home Message

- Do not be afraid. Be cool!

- Share the accurate and updated information.

- If you have cold/flu-like symptoms, keep cough etiquette and wear surgical mask.

- Master basic infection control techniques.

- Do those routinely and usually.
Tohoku Infectious Diseases Crisis Control Network

Web: http://tohoku-icnet.ac/
Demonstration by Dr. Hatta & Practice

1. How to wear surgical mask properly?

2. How to clean your hands up with alcohol-based hand rub?

3. How to remove your gloves?
Infection Control Round
at EVRCM on May 19, 2009

- No poster for cough etiquette

- No poster for hand hygiene

- No standardization of alcohol rub
  (ethanol & isopropanol, several
  concentrations, too low [40%] ethanol)

- No enough water supply
Hand Hygiene Technique with alcohol-based rub