Doctors’ Efforts Toward Appropriate Medical Waste Management

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About JMA

• Japan Medical Association (JMA)
• Founded in 1916
• National voice of Japanese physicians
• 165,000 members (about 60% of all licensed physicians in Japan)
• Mission
  – to play leadership for citizens
  – to promote the highest standards of medical ethics and education
Why should doctors take care of Medical Wastes?
Medical wastes cause diseases, and Doctors should prevent them.
Threats of Medical Waste

• Threats to Health
  – 4 needlestick accidents per 100 beds in a year
  – Infectious rate by needlestick accidents
    • HBV  10 ~ 35%
    • HCV   2 ~ 5%
    • HIV   0.2 ~ 0.5%

• Threats to Environment
  Cause environmental pollution
Responsibility of Waste Generators

Responsibility from the beginning (generation) to the end (final disposal)

If waste are illegally disposed by others such as contracted waste disposal companies ·····

We may still have responsibility to recover them.
Doctors’ Activities

• I. Waste management in the hospital
  1. Identification
  2. Segregation
  3. Container
  4. Bio-hazard Mark
  5. Medical Waste Supervisors

• II. Waste management out of the hospital
  6. Slips used for Waste Management
  7. Visiting Waste Treatment Facility
1. Identification

[Step 1] Appearance
1) Blood, blood serum, blood plasma and body fluid (including semen)
2) Pathologic waste (organs, tissues, skins, etc.)
3) Waste used in tests and examinations related to pathogenic microbes
4) Sharps with blood, etc.

[Step 2] Place
Waste generated after the use of;
1) Medical treatment, examination, etc.
2) In beds for infectious diseases
3) Operation
4) Emergency Room
5) ICU (Intensive Care Units)
6) Laboratories

[Step 3] Infectious Disease
Waste generated after the medical treatment and examination for the infectious disease

Infectious wastes

Non-infectious wastes
2. Segregation

- Sharps

- Plastics (compatible)

- Glass bottles
Segregation (Laboratory Wastes)
3. Containers

- For Sharps (Needles, surgical knife)
  - Made of metal or plastics
  - Made of anti-penetrating containers

- For Solid
  - Double-Use of plastics bag

- For Liquid and Sledge
  - Made by anti-leak container (Keep out liquid)
4. Bio-hazard Mark

Used for containers with special color to distinguish types of wastes easily

- **Red**: for Liquid or Sludge waste
- **Orange**: for Solid waste
- **Yellow**: for Sharps waste
5. Medical Waste Supervisor

• Each Facility should appoint the supervisor

• Responsibilities include;
  – Managing medical wastes in the facility
  – Improving awareness among staffs
  – Developing “Waste Management Plans”

• Qualification
  Degrees in medicine, pharmacy, public health, hygieiology or veterinary science
  (Medical Doctors, Dental Doctors, Pharmacists, Veterinarians, Health Nurses, Midwives, Nurses, Clinical/Health Laboratory Technologists and Dental Hygienists)
II. Waste management out of the hospital

Removal → Treatment → Transportation
6. Slips for Waste Management

- Waste Generator
- Transporter
- Waste Treatment Facility
  - As Disposer
  - As Generator
- Transporter
- Final Disposal Site

Send the Copy containing the final disposal specification

Specify the final disposal in the copy
7. Visiting Facilities
JMA’s Activities

8. Promotion for appropriate treatment (ex. seminars)
9. Selection of most appropriate disposal company
10. Social Contribution against Illegal Dumping
11. Technology Development such as IC Chips
8. Seminars
9. Coordination between hospitals & waste disposal companies

- Local Medical Associations should play a key role
- Build Networks for small clinics
10. Technology Development such as IC Chips.
Waste Injection Cylinder Covered by soil
11. Social Contribution against illegal dumping

Local Government

Industries

JMA

Fund

National Government

Illegal Dumping

Treatment
Take Home Messages

• Medical waste causes **serious adverse effects** to human health and environment

• History shows that medical waste **increases** in accordance with industrialization

• Appropriate treatment system is **essential**

• Doctors can and should play a **key role**
Thank you!