MERCURY CLEANING

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The Kingdom of Thailand lies in Southeast Asia, with Laos and Cambodia to its east, the Gulf of Thailand and Malaysia to its south, and the Andaman Sea and Myanmar to its west.
Bangkok

- Bangkok, officially known as Krung Thep, is the capital and largest city of Thailand.
- Bangkok is divided into 50 districts. There were 6,355,144 registered residents in the city.
- Bangkok is considered to be one of the world's top tourist hotspots such as Grand Palace, Wat Arun, Wat Phra Kaew.
Grand Palace
Sriraj Hospital Faculty of Medicine
Mahidol University

Area 13.2 Acres
75 Buildings
• 12,074 staffs consist of:-
  – 1,200 Physicians
  – 7,783 Nurses
  – 1,974 Practical nurses
  – 1,117 Back offices
Siriraj Hospital

- Total number of patients bed are 2600
- Normal Bed 1800
- Special Bed 800
- 107 Wards
- 15 ICU
Mercury Sphygmomanometer in ward and clinic of Siriraj Hospital > 1300 units
Mercury Sphygmomanometer part
Mercury Sphygmomanometer

• After a certain time of use, humidity in the air causes oxide with mercury inside the glass tube and mercury reservoir

• Need preventive maintenance and calibration
Show the mercury with oxide and dirt
The accessories for Mercury cleaning

• 1.5 Liters Plastic bottle
• Jug for mercury reservoir
• Steam rice
• Cutter for cut the plastic bottle
• Motor drill with 1.0 mm drill
Plastic bottle
Cut the bottle
To drill the plastic cover
To lay down the plastic bottle on the jug
Put the steam rice in the plastic bottle and press it
Take the dirty mercury
Put the dirty mercury in the plastic bottle that fill with steam rice
Show the mercury flow down to the jug
• Mercury after passed the steam rice
Show the steam rice worked as filter
To clear up the steam rice

Put the dirty steam rice on the plastic plate in the laminar flow Hood for drying the dirty steam rice
Separated the mercury from the steam rice.

Take the mercury cleaning later.
Thrown away the dirty steam rice in the container for toxic and sent to be destroyed by the company.
Safety

• Man
  1. We have the specific dress, rubber grove and mercury filter mask.
  2. Medical checkup is examined for every 6 months.
Safety dress for man
1. The operation is done in the hood with air circulation device at the height of 20 m.
2. The whole waste such as the steam rice is thrown away in the container for toxic and sent to be destroyed by the company.
Show the hood with air circulation device at the height of 20 m.
Show the air filter

- Air Heppa filter
• 3. Assessment and evaluation by Department of Preventive and Social Medicine Faculty of Medicine Siriraj Hospital Mahidol University
Outcome 1

- Save the money to purchase the new mercury.
- In Bangkok
  - 1 Kg. of Hg. = 110 USD
  - 1 Kg. of Hg. = 60 mL.
Can put in the 8 sphygmomanometer.
Outcome 2

1300 sphygmomanometer we must purchase 162.5 Kg. of Hg.

\[ 162.5 \times 110 \text{ USD} = 17,875 \text{ USD / yr} \]

Siriraj Hospital save the money
17,875 USD / yr
Outcome 3

• To have the new innovation
Thank you