

2014

*Educational Sessions; Blood Purification Systems*

# *Clinical Engineers: Japan*

*-The Importance of clinical engineers in hospitals-*

*Jun yoshioka*

Japan association for clinical engineers (JACE)  
International Exchange Committee





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# Clinical Engineers

## Clinical engineers (CEs)

Established in 1987

## Education

University (4yrs) or academy (3yrs)

Master course (2yrs), Doctor course (3yrs)

## National license

Need to pass a national examination





# Clinical Engineers

The number of Clinical engineers (CEs)

35,000

Work place

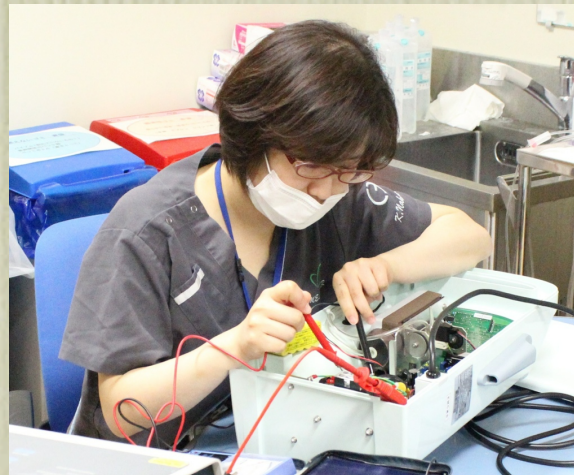
Operating room, Dialysis room,  
Cardiac catheterization room,  
Hyperbaric oxygenation room,  
ICU, HCU, NICU, Emergency room,  
and the hospital ward.





# Business Operations

- *Extracorporeal circulation*
- *Blood purification*
- *Hyperbaric oxygenation*
- *Maintenance*
- *Education*





# Safety management

- Earlier

The equipment was simple and rugged, so did not break down easily.

- Present day

Modern critical care medical equipment has numerous CPU boards and sensors, and more failure points.

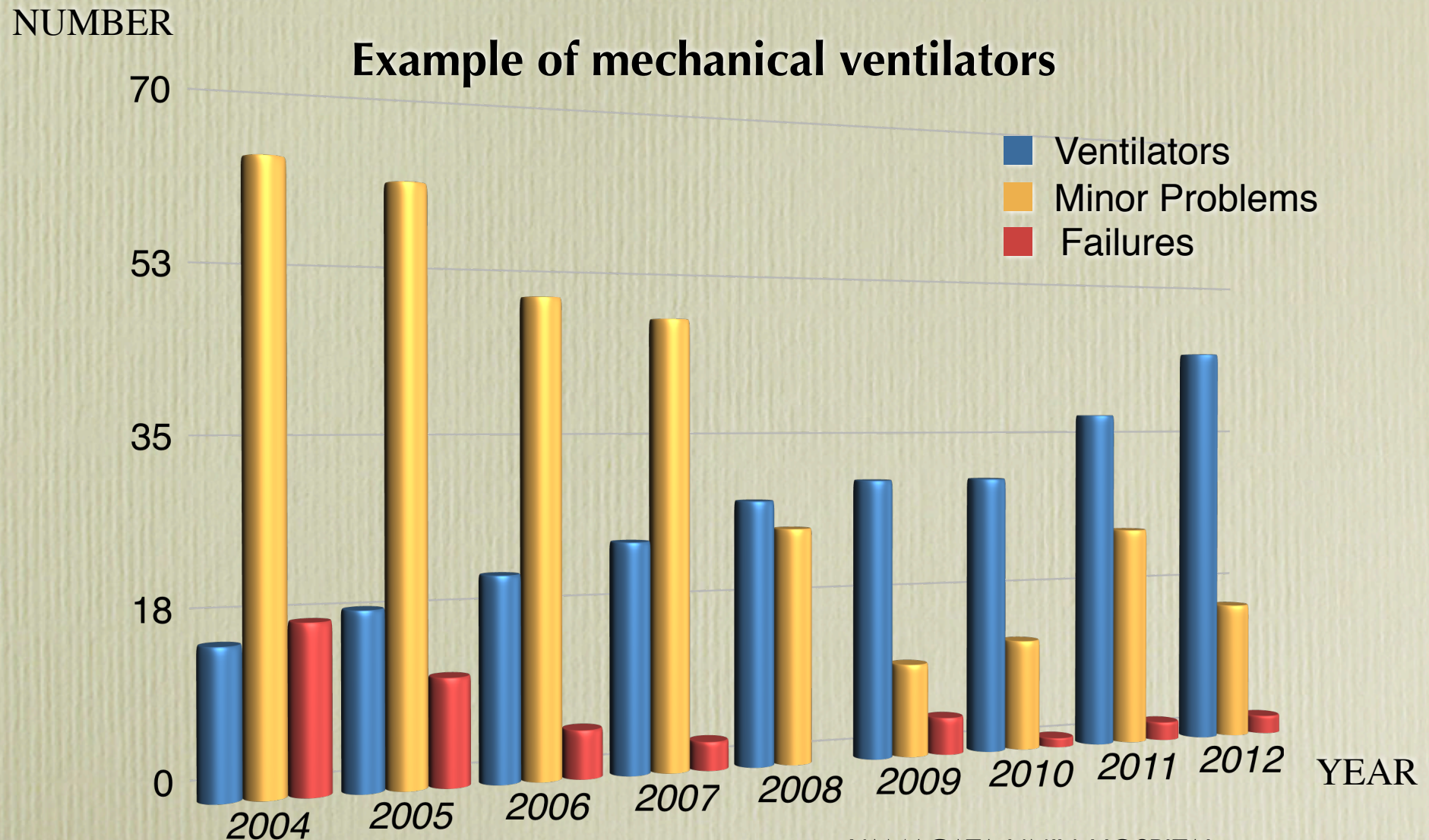
- Key CE services

Increased special maintenance of medical equipment by CE is necessary.





# The benefits of having Clinical Engineers



YAMAGATA UNIV. HOSPITAL

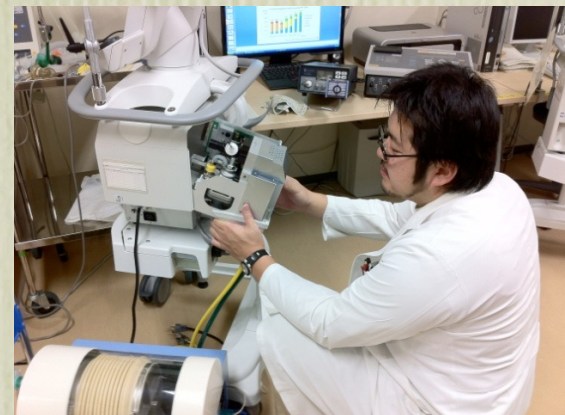
*Jun Yoshioka et al. Journal of Intensive Care. 2014*



# *Clinical engineers*

- are an essential profession for the safe operation of medical equipment.*
- have decreased medical equipment failure which exposes patients to potentially harmful risks*

## Conclusion





# International Exchange Committee

- Closer communication with other industrialized

The International Exchange Committee wants to support clinical engineers who want to spread their wings around the world, and is determined to further promote such cooperation.

Volunteers Program and Senior Volunteers Program of JICA, Japan International Cooperation Agency.





# International Exchange Committee

- Closer communication with other industrialized nations and information collection through positive participation in international conventions.
- Technological cooperation in the areas of clinical engineering and blood purification, transfer of clinical engineer systems to and exchange with China.
- Dissemination of clinical engineering mind-set and development of internationally-minded people through participating in JOCV, Japan Overseas Cooperation Volunteers Program and Senior Volunteers Program of JICA, Japan International Cooperation Agency.







Japan Association for Clinical Engineers

International Committee

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