

SAFETY ALERT



Sharing Lessons Learned

Unexpected Shutdown of Mechanical Ventilator

Several incidents reported the sudden shutdown of ICU Mechanical Ventilators, while connected to patients in different areas in the Hospital.

Assessment:

Investigators communicated with Manufacturers and End-Users, including family members who attended those events, to summarize the potential reasons for the sudden shutdown:

- Δ Manufacturing Defect.
- Δ Electromagnetic interference through Radio-Frequency devices, such as mobile phones.



(fig.1) Mechanical Ventilator Machine



(fig.2) Ambo Bag



(fig.3)

Recommendations:

In case of sudden mechanical ventilators shutdown, consider the following to minimize any risks which could lead to serious patient harm:

1. Patient's room must have adequate monitoring system that can alert the healthcare team (Example: High audible alarm, Central station, etc...).
2. Proper clinical management (Example: Manual Ambo Bag, back-up Ventilator Machine, etc.).
3. Immediate reporting of malfunction to Clinical Engineering and through QIS, in case of sudden shutdown of Mechanical Ventilators while connected to a patient.
4. Avoid using cellular phones near operating Ventilators, as per [IPP # NCIPP-8949](#).
5. Educate patients and family members on how to react if they encounter sudden Mechanical Ventilator shutdown.