RPTs: CMS, TJC, and the Eclipse of Clinical Engineering

2015 ECRI Institute Top 10
- Alarm hazards
- Data integrity
- IV line mix-up
- Inadequate reprocessing
- Ventilator disconnections

2015 ECRI Institute Top 10
- Patient-handling devices
- Radiation “dose creep”
- Robotic surgery
- Cybersecurity
- Recall & alert management

RPT    Relocatable Power Tap
CMS    Centers for Medicare and Medicaid Services
TJC    The Joint Commission

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NESC Spring/Summer 2015 Meeting
New London CT (June 23, 2015)
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Details</th>
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**June 2014** Based on its interpretation of the codes and standards it enforces, CMS bans the use of RPTs for medical equipment in patient care areas. TJC follows suit.

**July 2014** HTM community says “WTF?”

**September 2014** CMS throws in the towel and authorizes a “categorical waiver.”

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**Patient Bed Location (2012 NFPA 99)**

The location of a patient sleeping bed, or the bed or procedure table of a critical care area.

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**Patient Care Room (2012 NFPA 99)**

Any room of a health care facility wherein patients are intended to be examined or treated.

- Critical care room
- General care room
- Basic care room
- Support room

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**Critical Care Room (2012 NFPA 99)**

Room in which the failure of equipment or a system is likely to cause major injury or death of patients or caregivers.
Critical Care Room (Annex 2012 NFPA 99)
These rooms are typically where patients are intended to be subjected to invasive procedures and connected to line-operated patient-care-related appliances.

Critical Care Room (Annex Examples 2012 NFPA 99)
Special care patient rooms used for critical care, intensive care, and special care treatment rooms such as angiography laboratories, cardiac catheterization laboratories, delivery rooms, operating rooms, post-anesthesia care units, trauma rooms, and other similar rooms.

Patient-Care-Related Electrical Equipment
Electrical equipment appliance that is intended to be used for diagnostic, therapeutic, or monitoring purposes in a patient care vicinity.

Patient Care Vicinity (2012 NFPA 99)
A space, within a location intended for the examination and treatment of patients, extending 1.8 m (6 ft) beyond the normal location of the bed, chair, table, treadmill, or other device that supports the patient during examination and treatment and extending vertically to 2.3 m (7 ft 6 in) above the floor.
**CMS (September 2014 Memorandum)**

**Patient bed locations** in new health care facilities, or in existing facilities that undergo renovation or a change in occupancy, shall be provided with a minimum number of receptacles as required by 6.3.2.2.6.2 (2012 NFPA 99).

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**CMS (September 2014 Memorandum)**

Power strips may be used in a **patient care vicinity** to power rack-, table-, pedestal-, or cart-mounted **patient care-related electrical equipment assemblies**, provided all of the following conditions are met, as required by 10.2.3.6 (2012 NFPA 99).

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**CMS (September 2014 Memorandum; from 2012 NFPA 99)**

- Receptacles are permanently mounted to the equipment assembly.

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**CMS (September 2014 Memorandum; from 2012 NFPA 99)**

- The sum of the ampacity of all appliances connected to the receptacles shall not exceed 75 percent of the ampacity of the flexible cord supplying the receptacles.
CMS (September 2014 Memorandum; from 2012 NFPA 99)
- The ampacity of the flexible cord is suitable in accordance with the current edition of NFPA 70, National Electrical Code.

CMS (September 2014 Memorandum; from 2012 NFPA 99)
- The electrical and mechanical integrity of the assembly is regularly verified and documented through an ongoing maintenance program.

CMS (September 2014 Memorandum; from 2012 NFPA 99)
- Means are employed to ensure that additional devices or non-medical equipment cannot be connected to the multiple outlet extension cord after leakage currents have been verified as safe.

... deleted in 2015 NFPA 99

CMS (September 2014 Memorandum)
Power strips may not be used in a patient care vicinity to power non-patient care-related electrical equipment (e.g., personal electronics).
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**CMS (September 2014 Memorandum)**

Power strips may be used outside of the patient care vicinity for both patient care-related electrical equipment and non-patient-care-related electrical equipment.

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**CMS (September 2014 Memorandum)**

Power strips providing power to rack-, table-, pedestal-, or cart-mounted patient care-related electrical equipment assemblies are not required to be an integral component of manufacturer tested equipment. Power strips may be permanently attached to mounted equipment assemblies by personnel who are qualified ...

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**CMS (September 2014 Memorandum)**

Power strips providing power to patient care-related electrical equipment must be Special-Purpose Relocatable Power Taps (SPRPT) listed as UL 1363A or UL 60601-1.

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**CMS (September 2014 Memorandum)**

Power strips providing power to non-patient-care-related electrical equipment must be Relocatable Power Taps (RPT) listed as UL 1363.
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**CMS** *(September 2014 Memorandum)*

Formally elect to use the waiver and document their election decision.

**Summary**

- Next time, install enough receptacles
- Patient-care-related equipment: SPRPTs (UL 1363A) must be used
- Other equipment in patient care areas: RPTs (UL 1363) may be used

**Recommendations**

- Inventory and inspect SPRPTs that are permanently mounted to assemblies
- Inspect SPRPTs, RPTs, extension cords, and adapters (3-to-2-prong not allowed)

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<table>
<thead>
<tr>
<th>Type</th>
<th>PC Vicinity</th>
<th>PC Room</th>
<th>Non-PC Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPRPT (UL 1363A)</td>
<td>Patient care equipment only</td>
<td>Allowed</td>
<td>Allowed</td>
</tr>
<tr>
<td>RPT (UL 1363)</td>
<td>Not allowed</td>
<td>Allowed</td>
<td>Allowed</td>
</tr>
<tr>
<td>Power Strip (basic listing)</td>
<td>Not allowed</td>
<td>Not allowed</td>
<td>Allowed</td>
</tr>
</tbody>
</table>

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