

Notes:

Electrical & Equipment Safety

1. Electrical & Equipment SafetyScene

1.1 Electrical & Equipment Safety

Electrical and Equipment Safety



This section of the training contains information on the following programs:

- Lockout/Tagout (for Affected and Other Employees)
- Medical Equipment
- Utilities

1 of 13. | You've completed 0% of the lesson.

Notes:

2. Utilities


2.1 Utilities

Utilities

There are a number of utilities in use at a hospital, and any of these may fail.

Your facility may experience electrical failure, flooding/sewer failure, medical gas failure, medical vacuum failure, hi-pressure steam failure, elevator failure or communications failure.

These systems are maintained by the Facility Services department.



2 of 13. | You've completed 0% of the lesson.

Notes:

2.2 Rainbow Chart

Rainbow Chart

Review your facility's Rainbow Chart, or contact your supervisor or EH&S Department to learn what to do in any of these utility failure situations.

Code Blue - Medical Emergency (Adult, Pediatric, Neonatal)
Code Gray - Security Assistance Needed
Code Pink - Infant Abduction
Code Purple - Child Abduction
Code Tri-Red - Internal / External
Code Green - Patient Elopement or High Risk Missing Adult
Code Red - Fire
Code Orange- Hazardous Material Incident
Code Silver - Active Shooter
Code Silver - Active Assailant
Code Yellow - Suspicious Package
Attention - Technology Outage
Attention - Utility Failure

3 of 13. | You've completed 0% of the lesson.

Notes:

2.3 Utilities -Medical Gases/Compressed Gas Cylinders

Utilities -Medical Gases/Compressed Gas Cylinders

If you work in a department with piped medical gases, know what your department's responsibilities are with regard to emergency medical gas shut off.

Know the location of the shut-off valves and the rooms they control. If unsure of your responsibilities, discuss with your supervisor or contact your Engineering department.



4 of 13. | You've completed 0% of the lesson.


2.4 Electricity

Electricity

Click on each button

General Safety Tips

Safety Hazards



Notes:

General Safety Tips (Slide Layer)


Electricity

Click on each button

General Safety Tips

Safety Hazards

- Always disconnect plugs from wall by grasping the plug, not the cord.
- Equipment in patient care areas in a Hospital must have a 3-prong plug and be plugged into a 3-wire receptacle.
- Do not use "cheater" adapters (allow 3-pronged plug to connect to a receptacle with 2 slots) or multiple adapters.
- **Extension cords should be no longer than 10 feet** and used only in **temporary** emergency situations.
- At most facilities, electrical outlets which are connected to the back-up generators are colored RED. **Red outlets are to be used primarily for life support equipment.** At some hospitals, all outlets connect to back up generators. You should know which outlets in your area connect to back up power and your building's emergency procedures in the event of power loss.
- Don't plug microwaves or refrigerators into power strips.



5 of 13. | You've completed 0% of the lesson.

Remove from Service if... (Slide Layer)

Electricity


Click on each button

General Safety Tips

Safety Hazards

Remove from service if:

- There is evidence of overheating.
- Someone has received a shock from the equipment.
- Any wire is frayed, worn, burned, cut, or warm.
- It has been dropped or is physically damaged.
- Switches or knobs are loose or do not turn from one position to another, or do not consistently produce the expected result when operated.
- Liquid has been spilled on it.



5 of 13. | You've completed 0% of the lesson.

3. Medical Equipment

3.1 Medical Equipment - Clinical Technology

Medical Equipment - Clinical Technology

Clinical Technology "ClinTech" is the department responsible for the management of the maintenance of all medical equipment at Kaiser Permanente facilities - regardless of ownership.

Some of the responsibilities of the department include:

- Maintaining current, accurate inventories of all medical equipment
- Monitoring and acting on medical equipment hazard notices and recalls
- Conducting electrical safety testing on medical equipment
- Conducting scheduled preventive maintenance of all medical equipment

At most medical centers, ClinTech does **not** maintain or repair:

- Wheel chairs
- Call lights
- Patient lifts
- Beds
- Patient Mechanical Scales
- Sphygmomanometers
- High Level Disinfection Units (GUS, Steris)
- TVs
- OR Tables

Typically these items will be maintained by the facility's Engineering Department or an outside contractor.

6 of 13. | You've completed 0% of the lesson.

Notes:

3.2 Medical Equipment - Preventive Maintenance (PM) Tags

Medical Equipment - Preventive Maintenance (PM) Tags

Prior to use of medical equipment, staff **must inspect the PM Tag** to ensure that its **preventive maintenance is current** (not expired).

Equipment with outdated PM tags must be immediately reported to your supervisor and/or ClinTech. Remove from service and make it available for the performance of the PM.

Patient equipment should have inspection stickers. Individual pieces of Medical Equipment can be identified by the color-coded Equipment Identification Number (EIN) Sticker, which will look similar to one of these:

KAISER PERMANENTE
PM DUE 12 25
INSPECTED BY
CLINICAL TECHNOLOGY

NON-HOSPITAL OWNED
EQUIPMENT
Electrical Safety Tested

Date: _____ By: _____
Next Inspection Due: _____
Kaiser Permanente: _____

7 of 13. | You've completed 0% of the lesson.

3.3 Malfunctioning Medical Equipment

Malfunctioning Medical Equipment

Perform the following steps if you come across malfunctioning equipment

Click on each button

Tag	Place a tag on the malfunctioning equipment. Describe the exact problem so that the proper repair can be promptly scheduled and performed. Just tagging it with a piece of paper marked "broken" is not enough information for repair.
Remove	Remove the malfunctioning equipment to a location where it will not be used.
Report	Report the issue to ClinTech for repair, being as specific as possible.

Not using the tags or not following the proper procedures could jeopardize patient safety!

8 of 13. | You've completed 0% of the lesson.

Notes:


3.4 Safe Medical Devices Act (SMDA)

Safe Medical Devices Act (SMDA)

Medical Equipment failure or malfunction that causes or contributes to patient injury, illness or death must be reported, as required by the Federal Drug Administration (FDA).

In these instances, a Responsible Reporting Form (RRF) should be completed.

All equipment involved in such an incident must be sequestered by ClinTech for investigation.



9 of 13. | You've completed 0% of the lesson.

4. Lockout - Tagout

4.1 Medical Equipment - Clinical Technology

Lockout/Tagout (LOTO) for Affected and Other Employees

There are machines and equipment in our workplace which require periodic servicing and maintenance.

The purpose of the hazardous energy control program is to prevent unexpected start-up of machines /equipment or uncontrolled release of energy, such as fans and electrical current, that could injure employees.

Qualified authorized employees (e.g. Facility Engineers) use equipment-specific lockout/tagout (LOTO) procedures to prevent unintended activation of equipment while servicing them.

This training is for employees that operate equipment or machines that has been locked or tagged out or other employees that may work in the vicinity of such equipment or machines.



10 of 13. | You've completed 0% of the lesson.

Notes:

4.2 Medical Equipment - Clinical Technology

Hazard Energy Control

Lockouts and Tagouts are the ways maintenance personnel **control hazardous energy** from being released when they are **working on a piece equipment**.

Sources of potentially hazardous energy include:

- Electricity
- Compressed Air
- Oxygen or Other Gases
- Open flame
- Steam Hydraulic Line Forces
- Radiation Sources including x-ray laser light sources from laser surgical machines
- Spring Tension



11 of 13. | You've completed 0% of the lesson.

Notes: