

Fire Response in Hospitals

Fire and smoke can cause significant amounts of damage in hospitals and result in serious injuries or deaths. Knowing how to respond to a fire and/or smoke condition is essential for the safety of employees, patients, visitors, and others. Building construction codes, automatic fire detection systems, fire suppression systems, and training for staff members are all essential elements that hospitals need to have in place to prevent and respond to fires.

Contributing factors to hospital fires include an aging infrastructure, kitchen facilities, cigarettes, specialized medical equipment, hand sanitizers, gas cylinders and medical oxygen compliance, anesthesia machines, extension cord daisy chains, inadequate fire training, storage of combustible materials, faulty or poorly maintained fire safety systems, and heating equipment.¹ Hospitals should recognize and address these areas in a comprehensive fire response plan or fire safety and evacuation plan that details specific responsibilities and protocols.

The following checklist contains various critical aspects associated with a hospital's fire response, including a written response plan, staff responsibilities and training, fire drills, and extinguishers.

	Yes	No
<i>Fire Response/Fire Safety Plan</i>		
Has your hospital established a comprehensive written fire response plan or fire safety and evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>
Does your hospital ensure that all staff members (including practitioners, support staff, volunteers, students, and contractors) are trained and aware of the procedures contained in that plan?	<input type="checkbox"/>	<input type="checkbox"/>
Does your hospital review and discuss the plan on an annual basis with local fire department representatives and the state department of health?	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No
Fire Response/Fire Safety Plan (continued)		
Does the environment of care or safety committee review the plan on an annual basis?	<input type="checkbox"/>	<input type="checkbox"/>
Does the hospital's chief executive officer approve the plan?	<input type="checkbox"/>	<input type="checkbox"/>
Does the plan define general safety actions, such as staying low to avoid inhaling smoke and products of combustion, feeling closed doors for heat, turning off fans and heating, ventilation, and air-conditioning (HVAC) units, and taking appropriate actions if there is more smoke on the other side of the fire/smoke barrier door(s)?	<input type="checkbox"/>	<input type="checkbox"/>
Does the plan include specific procedures for:		
• People in the immediate area of the fire versus those away from the fire?	<input type="checkbox"/>	<input type="checkbox"/>
• Handling handicapped individuals?	<input type="checkbox"/>	<input type="checkbox"/>
• Interim life safety measures?	<input type="checkbox"/>	<input type="checkbox"/>
• Fire response team members?	<input type="checkbox"/>	<input type="checkbox"/>
• Operating room fire safety?	<input type="checkbox"/>	<input type="checkbox"/>
• Boiler room safety?	<input type="checkbox"/>	<input type="checkbox"/>
• Kitchen fire safety?	<input type="checkbox"/>	<input type="checkbox"/>
• Mechanical room safety?	<input type="checkbox"/>	<input type="checkbox"/>
• Electrical room safety?	<input type="checkbox"/>	<input type="checkbox"/>
• Laboratory fire safety?	<input type="checkbox"/>	<input type="checkbox"/>
• Magnetic resonance imaging (MRI) fire safety?	<input type="checkbox"/>	<input type="checkbox"/>
• Loading/storage area safety?	<input type="checkbox"/>	<input type="checkbox"/>
Does the plan include prohibiting smoking in all areas of the hospital?	<input type="checkbox"/>	<input type="checkbox"/>
Does the plan indicate that sources of ignition should be removed from patients receiving oxygen therapy?	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No
Fire Response/Fire Safety Plan (continued)		
Does the plan describe how to respond to an oxygen-fed fire like a smoking incident that involves oxygen?	<input type="checkbox"/>	<input type="checkbox"/>
Does the plan include removing all items from the corridors?	<input type="checkbox"/>	<input type="checkbox"/>
Does the plan include prewritten approval from the local fire marshal for silencing the fire alarm once the responding agency(ies) deem the situation under control?	<input type="checkbox"/>	<input type="checkbox"/>
Does the plan specify which staff members should meet the responding agency(ies) and where they should meet?	<input type="checkbox"/>	<input type="checkbox"/>
Does the plan identify where patients will be relocated and then evacuated if necessary?	<input type="checkbox"/>	<input type="checkbox"/>
Does the plan identify a predesignated emergency operations center (EOC) and back-up location?	<input type="checkbox"/>	<input type="checkbox"/>
Does the plan identify that the local fire chief or designee is in command and will operate in conjunction with the EOC staff to formulate appropriate actions during the emergency?	<input type="checkbox"/>	<input type="checkbox"/>
Fire Drills		
Does your hospital conduct fire drills to ensure all staff members know what to do in case of fire or smoke condition and primary and secondary exit routes?	<input type="checkbox"/>	<input type="checkbox"/>
Does your hospital conduct fire drills on every shift once each quarter on a rotating basis at least an hour apart?	<input type="checkbox"/>	<input type="checkbox"/>
Do the adjacent floors/smoke compartments clear the corridors as part of the drill?	<input type="checkbox"/>	<input type="checkbox"/>
Are the adjacent floors/smoke compartments observed during the fire drill?	<input type="checkbox"/>	<input type="checkbox"/>
Are operating room, laboratory, and kitchen fire drills conducted annually?	<input type="checkbox"/>	<input type="checkbox"/>
Does the local fire marshal/fire department conduct regularly scheduled tours of the facility and observe fire drills?	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No
Staff Responsibilities and Training		
Does your hospital conduct fire safety training for all staff members (including practitioners, support staff, volunteers, students, and contractors)?	<input type="checkbox"/>	<input type="checkbox"/>
Do staff members recognize the need for immediate action in case of a smoke condition or fire to preserve the safety of people in the facility?	<input type="checkbox"/>	<input type="checkbox"/>
Do staff members know what they should do to ensure patients remain safe in case of a fire?	<input type="checkbox"/>	<input type="checkbox"/>
Do staff members know how to move patients quickly and safely?	<input type="checkbox"/>	<input type="checkbox"/>
Are staff members trained to move patients in the immediate area of the fire or smoke condition horizontally into the next smoke compartment? (Note: Vertical movement of patients downward away from the fire or smoke condition via the fire stairwell is possible but very labor intensive and typically involves four people per evacuation device.)	<input type="checkbox"/>	<input type="checkbox"/>
Are staff members trained not to use elevators during a fire emergency unless the incident commander deems it safe to do so?	<input type="checkbox"/>	<input type="checkbox"/>
Have staff members been trained to use Med Sleds or similar patient evacuation devices?	<input type="checkbox"/>	<input type="checkbox"/>
Do staff members close doors and windows and shut off portable fans, vents, hoods, and HVAC units in the immediate area of the fire or smoke condition?	<input type="checkbox"/>	<input type="checkbox"/>
Are staff members taught to place wet towels around door openings, chute openings, and elevator doors to limit smoke and heat travel (especially on upper floors above the fire or smoke condition) if needed?	<input type="checkbox"/>	<input type="checkbox"/>
Do staff members understand the terms RACE (Rescue, Alarm, Confine/Contain, Extinguish/Evacuate) and PASS (Pull the pin, Aim at the base of the fire, Squeeze the handles, Sweep back and forth at the base of the fire)?	<input type="checkbox"/>	<input type="checkbox"/>
Are staff members extremely cautious in areas where fires could be more likely to occur, especially kitchens, laboratories, dining facilities, and laundry rooms?	<input type="checkbox"/>	<input type="checkbox"/>
Do staff members know where the nearest fire alarm pull stations are located in the hospital and how to activate them?	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No
	Yes	No
Staff Responsibilities and Training (continued)		
Do staff members know what to do if the fire alarm system does not work?	<input type="checkbox"/>	<input type="checkbox"/>
If a fire or smoke condition exists, are staff members trained to call the switchboard or 911 to report where the fire is located (building, floor, unit), what is burning, and whether any patients are being evacuated or are trapped (critical information for the fire department)?	<input type="checkbox"/>	<input type="checkbox"/>
Do hospital switchboard operators receive training on announcing on the overhead paging systems a “Code Red” or “Code Fire” and the location of the emergency?	<input type="checkbox"/>	<input type="checkbox"/>
Do hospital switchboard operators know to repeat the “Code Red” or “Code Fire” three times or follow the facility’s policy for announcing an emergency?	<input type="checkbox"/>	<input type="checkbox"/>
If any appliance, tool, or piece of medical equipment generates sparks, smoke, or produces unusual odors, do staff members follow the RACE protocol and unplug the piece of equipment if possible?	<input type="checkbox"/>	<input type="checkbox"/>
Do staff members follow the RACE and PASS protocols if a small fire occurs?	<input type="checkbox"/>	<input type="checkbox"/>
Once the condition is mitigated, do staff members notify risk management and ensure the piece of equipment is tagged and replaced?	<input type="checkbox"/>	<input type="checkbox"/>
If any appliance, tool, or medical equipment results in a patient or staff injury or burn, do staff members sequester the device and follow organizational protocol?	<input type="checkbox"/>	<input type="checkbox"/>
Extinguishers		
Are all staff members trained on how to operate fire extinguishers at orientation and during annual training?	<input type="checkbox"/>	<input type="checkbox"/>
Are staff members taught to use a fire extinguisher only if it is a small fire and to maintain their back to the exit?	<input type="checkbox"/>	<input type="checkbox"/>
Does the fire response/fire safety plan address these types of extinguishers: pressurized water, carbon dioxide, multipurpose dry chemical, MRI safe extinguishers, and wet chemical?	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No
Extinguishers (continued)		
Does the fire response/fire safety plan address classifications of fire, including Class A, Class B, Class C, Class D, and Class K?	<input type="checkbox"/>	<input type="checkbox"/>
When training staff members on using extinguishers, is the PASS protocol included?	<input type="checkbox"/>	<input type="checkbox"/>

Resources

For more guidance on this topic, see MedPro's [Checklist: Fire Response in Hospitals: Infrastructure Aspects](#). Other helpful resources include the National Fire Protection Association's [Codes and Standards](#) (Applicable Standards 10, 99, 101, 80, 10, 25, 72, 14, 15, 70E) and the U.S. Department of Labor's [Hospitals eTool](#).

Endnote

¹ Javed, B. (2023, July 8). Fires in hospitals: Different causes and control measures. *HSE Blog*. Retrieved from www.hseblog.com/different-causes-of-hospital-fires/

This document does not constitute legal or medical advice and should not be construed as rules or establishing a standard of care. Because the facts applicable to your situation may vary, or the laws applicable in your jurisdiction may differ, please contact your attorney or other professional advisors if you have any questions related to your legal or medical obligations or rights, state or federal laws, contract interpretation, or other legal questions.

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