

FIRE EMERGENCY INITIAL RESPONSE AND EVACUATION

INTRODUCTION

According to the National Fire Protection Association, more than 8,000 hospital fires are reported each year. If you're a nurse, these alarming statistics mean one thing: Fire really could break out on your unit. Your patients' lives - and your own - could depend on your response.

Fortunately, you can do something about it. Research shows that healthcare staff trained for fire emergencies respond to them more quickly and effectively, reducing the number of casualties.

FIRE FACTS

Fire is fast.

- When fire breaks out, it may take just three minutes to go from a tiny flame to a raging, all-consuming fire.
- This is due to "flashover". Flashover occurs when the air becomes hot enough to ignite every combustible object in a room.

Fire is hot.

- As frightening as flames are, you may face greater danger from a fire's intense heat that can sear lungs and fuse clothing to skin.
- Heat rises. In a fire, temperatures can vary from 90 degrees F near the floor to a lethal 600 degrees at eye level.

Smoke can kill.

- Fire can fill your workplace with thick, black, blinding smoke.
- Smoke contains toxic gases that can kill within minutes. This is especially hazardous to vulnerable patients.
- Carbon monoxide poisoning causes 75 percent of all fire deaths.
- Smoke rises to the ceiling, forming a dense cloud that slowly descends. Beneath it you can still see - and breathe.

RACE to SAFETY

What you do during the first two to three minutes of a fire is more important than what you do over the next two or three hours. To respond rapidly and effectively, memorize an easy-to-remember formula like "RACE" that tells you how to proceed and in what order.

R - Rescue patients

A - Sound the Alarm

C - Confine the fire

E - Extinguish or Evacuate

Let's look at some of the decisions you will have to make when you put the formula into practice.

R - Rescue patients.

When you discover a fire, rescuing patients in immediate, life-threatening danger is always your top priority. This means you should always stop to investigate any unusual odor at once. If you smell smoke coming from behind a closed door:

- Feel the door with the back of your hand before opening it.
- If it's too hot to touch, don't open it.
- If it's touchable, open it slowly.

If you must enter the scene of the fire to rescue a patient:

- Stay low. Remember that smoke and heat rise to the ceiling. Crawl beneath them.

A - Sound the Alarm.

Sounding the alarm immediately after discovering a fire is also vital. If you must rescue a patient in immediate danger, call out your facility's code word for fire so that other staff members can begin sounding the alarm. Rehearse your facility's alarm procedure with your co-workers:

- Work as a team. One person may pull the fire alarm while another person calls the switchboard to give the precise location of the fire and any other important information.
- Never hand up without asking the party on the other end to repeat your message.

C - Confine the fire.

Hospital units are separated by heavy fire doors. Once the alarm is sounded, they will close automatically to keep the fire from spreading. To help confine the fire within your unit:

- Close all doors, windows and vertical openings like laundry chutes. These are barriers to smoke, heat and flames.
- Stuffing damp towels underneath doors can help keep smoke out.
- Shut off oxygen if you are directed to do so.

E - Extinguish.

If a fire is small and confined to the area where it started, you may want to extinguish it yourself - after patients have been removed from immediate danger, the alarm has been rung and staff members have begun closing doors and windows.

- If the fire is in a trashcan or ashtray, you can smother it with a pillow, towel, rug or other blanket.
- If a patient's clothes are on fire, wrap the patient tightly in a large blanket to extinguish the flames.
- If a piece of equipment catches fire, pull the plug if possible. Shut off oxygen and remove any patient from immediate danger.

Fire Extinguishers

You can also use a fire extinguisher to put out a small fire - if you've been taught how. The types of fire extinguishers found in healthcare facilities correspond to three categories of fires:

<u>Extinguisher</u>	<u>Look for This Label</u>	<u>Use for Fires Involving</u>
Class A	"A" in a green triangle	Ordinary combustibles: Paper, wood, cloth, rubber and many plastics
Class B	"B" in a red square	Flammable liquids: Gasoline, oil, grease
Class C	"C" in a blue circle	Live electrical equipment
Class ABC	"ABC"	Any of the above materials

Once you know the ABC's of fire extinguishers, using them is as easy as P-A-S-S:

P - Pull the pin between the two handles

A - Aim at the base of the fire - if you spray the agent directly into fire, the pressure may spread the burning materials

S - Squeeze handles together

S - Sweep from side to side. Evenly coat entire area of the fire.

More tips:

- Apply extinguishing agent even after the flames are extinguished.
- Never leave an extinguished fire unattended. Stay until the fire department arrives.
- Check which extinguishers are available on your unit. Make sure you can reach the extinguishers and use them.

Evacuate

If a fire can't be extinguished and smoke, fumes or flames threaten patients' safety, you may have to evacuate. If so:

- Move patients horizontally. Get patients out of their rooms, through the next set of fire doors and into a safe area on the same floor.
- If you can't move horizontally because smoke or flames block your way, proceed vertically. Work your way down to a lower level. Don't move patients to a higher floor unless absolutely necessary.
- Never use elevators to escape.
- Evacuate ambulatory patients first to reduce confusion and hallway congestion. Stay calm. Give clear and exact directions.

To move non-ambulatory patients:

- Be prepared to disconnect respirators and other equipment, remove an IV or perhaps even cut a patient down from traction if necessary.
- Use wheelchairs if available. If necessary, you may even push a patient to safety while still in bed, although more than one or two beds could cause a dangerous traffic jam in the hallway.
- Learn and practice a variety of rescue techniques.

Rescue Techniques

You and an assistant can swing-carry a patient to safety this way:

Rescuer One:

- Slide an arm around the patient's neck and grasp the patient's far shoulder. With your free hand, grasp the upper part of the patient's other arm. Step toward the foot of the bed to bring the patient to a sitting position.

Rescuer Two:

- Grasp the patient's ankles, bringing his legs over the edge of the bed so they bend at the knees.

Both Rescuers:

- Take one of the patient's wrists and pull it down over your shoulder, while supporting the patient's body.
- With your arm closest to the patient, reach across the patient's back, placing your hand on your partner's shoulder.
- Reach under the patient's knees to grasp your partner's hand.
- Staying close to the patient, stand and remove the patient from the bed. Carry him/her to a safe area.
- At the safe area, drop on your knee closest to the patient, lean against the patient and rest the patient's buttocks on the floor. Next, lower the patient's torso and head to the floor.
- Always be careful to protect the patient's head.

To move a non-ambulatory patient by yourself:

- Spread a blanket on the floor beside the bed, with one-third under the bed and about eight inches extending beyond the patient's head.
- Grasp the patient's ankles and move his legs until they drop over the edge of the bed at the knee.
- Slowly pull the patient by his shoulders to a sitting position.
- From behind, encircle the patient with your arms under his armpits, and clasp your hands together over his chest.
- Slide the patient slowly to the edge of the bed and gently lower him to the blanket. If the bed is high, slide him down one of your legs.
- Wrap the blanket around the patient and grasp above his head with both hands. Do not let his head snap back. Pull him to safety.

If you must evacuate the patient down a stairway:

- Drag the patient headfirst to the stairway.
- Position yourself several steps lower than the patient, so that his lower body inclines upward.
- Place your arms under the patient's arms and clasp your hands over the patient's chest.
- Back down stairs slowly, maintaining close contact with the patient and keeping one leg against the patient's back.

Rescue Techniques

To evacuate infants or small children:

- Place as many children as possible in one crib
- Pull the crib to a safe area.

Or use this blanket drag method to drag up to eight infants at a time:

- Place a blanket or sheet on the floor.
- Put two infants in each bassinet. Pad with diapers or small blankets.
- Place the bassinet in the middle of the blanket
- Fold the blanket over one end, fold the corners in, then roll the sides in, to form a pocket.
- Grasp the folded blanket corners and pull the infants to safety.

Two trained persons can rescue a patient who has a lower body cast, provided the patient can be placed in a sitting position. This technique can be used in constricted spaces where single-file movement is necessary.

Rescuer One:

- You handle the upper body. Grasp the patient by his/her shoulders and pull him/her to a sitting position.

Rescuer Two:

- You handle the lower body. Take the patient's ankles and move his/her legs until one leg just clears the bed. If moved further, it will be difficult for your partner to get a hold on the patient.

Rescuer One:

- Maintain the patient in a sitting position and get behind the patient. Place your arms around the patient beneath his armpits and lock them in front.

Rescuer Two:

- Back in between the patient's legs, far enough to grasp just above ankles.

Both Rescuers:

- On signal, slide the patient to the edge of the bed, staying close to the patient. Rescuer One should hug the patient's back to her chest and keep her shoulders about even with the patient's.
- On signal, carry the patient to safety, walking forward. Rescuer Two should keep his/her arms straight down, thumbs up.
- At the safe area, Rescuer Two stoops and lowers the patient's legs, until his/her buttocks rest on the floor, while Rescuer One slide the patient down his/her body and legs and lowers the patient to his back.

Special Challenges

Sometimes even ambulatory patients present special evacuation challenges. For example, children, psychiatric patients and elderly patients may behave irrationally by ignoring the fire, becoming transfixed by it, resisting rescue efforts or even hiding under beds or in closets.

To evacuate challenging patients:

- Give directions firmly and calmly. Escort patients one-on-one to a safe area.
- If staffing is short, more stable ambulatory patients may help escort challenging patients, as long as they are under the general supervision of a staff member.
- Blind patients should be told to get close to the floor and keep in physical contact with a leader.
- Deaf patients should be directed by gestures and also escorted from the area.

Additional Tips When Evacuating Patients

- At the safe area, group and account for all patients and visitors.
- Never leave a group of patients unattended.
- Bring the patient card file. It contains essential information you may need later.
- Know which valves shut off oxygen or other gases, but never turn them off unless you are specifically directed to do so.
- Have a system for tagging the rooms already evacuated to avoid unnecessary backtracking.
- Direct firefighters to the fire and to any patients still on the unit.

React to the Unexpected

Stop, Drop and Roll

If you should catch on fire:

- **STOP** - WHERE YOU ARE
- **DROP**- TO THE FLOOR
- **ROLL** - AROUND ON THE FLOOR

This will smother flames, possibly saving your life. Just remember to STOP, DROP AND ROLL.

Cover Up

If a patient or co-worker catches on fire, smother the flames by grabbing a blanket or rug and wrapping them up in it. That could save them from serious burns or even death.

SUMMARY

Fire preparedness is an ongoing process. Go back to your unit and note the location of fire alarms and smoke detectors, evacuation routes and safe areas. Rehearse fire emergencies with your staff. Practice using a fire extinguisher. Evaluate and re-evaluate.

Think through all the possibilities now. That way you will be ready for action - when there is no time to think.