

# Do You Know Quality When You See It?

## A Snapshot of Health Care Quality Concerns That Are Often Compliance Concerns As Well

**A**s a compliance officer, do you know quality — and compliance — when you see it? Poor emphasis on patient safety contributes to quality and compliance concerns. Many very basic concerns are frequently seen but often ignored. These may contribute to infections, injury due to outdated medication use, injury due to improperly stored medications, slips, trips, and falls for patients and staff, illegible or incomplete medical records, failures to communicate with patients and among staff, and other concerns.

This article provides examples and photographic evidence of a variety of health care quality concerns that can be compliance concerns as well. Once again, we encourage compliance officers to “think outside the box” and recognize their unique role and capabilities when it comes to compliance with all types of rules and regulations, and even some issues that just require good common sense. We also encourage compliance officers to invest in a digital camera — and spend some time looking at safety and compliance issues in their own health care facility.

The photos included in this article were obtained during onsite risk assessments conducted by American Healthcare Providers Insurance Services (AHPIS), a professional liability insurance management company with headquarters in Philadelphia, PA.



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### REGULATORY COMPLIANCE AND PATIENT SAFETY IN MEDICATION MANAGEMENT

Arguably, medication management is one of the primary sources of patient injury. It is estimated that 770,000 people per year die or are injured from adverse drug events related to health care organizations.<sup>1</sup> Even with the intense focus on medication safety, many basic problems remain.

## Medication Reconciliation

Conduct a physician or pharmacist-led reconciliation of current and new medications issued at the time of prescription issuance. An excellent methodology for medication reconciliation and documentation is available at no cost from Aurora Health Care, funded through grants from the Agency for Healthcare Research and Quality (AHRQ), U.S. Department of Health and Human Services (HHS). To download a PDF version of the medication/reconciliation list project and tools, visit [patientsafety.org/file\\_depot/0-10000000/20000-30000/24986/folder/65244/medtoolkit.pdf](http://patientsafety.org/file_depot/0-10000000/20000-30000/24986/folder/65244/medtoolkit.pdf).

## Medication Expiration

Institute a process of validating the expiration of any medication (and medical supply) items stored and used. This problem is particularly prevalent in medical practices and outpatient settings but can be found in hospitals as well. Typically, exam, treatment, or procedure rooms maintain small supplies of medication and supply items in each room. These should be recorded on a master list

by room and checked for expiration dates at least monthly. Outdated medications or supplies should be discarded and replaced. The medication/supply list can help prompt recognition of out-dates if the expiration date of items are recorded along with the name of the item and location.

## Valid Expiration Date Labels

Verify that all medication items have valid expiration dates on the medication container. Items with missing or damaged labels should be replaced. (See Figure 1)

## Marking Multi-Use Vials When Opened

Verify that any multi-use vial opened and used has an open date written on the vial with permanent marker. Discard any multi-use vial 30 days after opening, regardless of amount used, or when any concern is raised regarding a failure in aseptic technique or potential contamination. An accepted standard of care in the United States is that all medication and supply items used for patient care will have current expiration dates and will be sterile or uncontaminated.

**Figure 1: Valid Expiration Dates**



Vials of Depo-Medrol at a Pain Management Clinic. Note the vial at the left has had the expiration date scratched off. This concern was identified in a 2008 AHPIS Risk Assessment Service.

## Medication Solutions

Verify that mixed solutions or solutions transferred from original containers are labeled with the exact solution, the expiration date from the original container, and the date first used. It is always advisable to record lot numbers when solutions are transferred in the event of a manufacturer's or Food and Drug Administration (FDA) recall. The solution should be discarded 30 days from initial use. Containers should not be used multiple times.

## Medication Refrigerator Management

Medication refrigerators can be a source of injury if vaccines or other medications are not stored and monitored properly. Refrigerators should always operate at proper storage temperatures of approximately 41 degrees Fahrenheit, or 5 degrees Celsius. Temperature should be

monitored with an internal analog or externally mounted digital thermometer. Temperature should be checked daily and a log maintained of the temperature when checked and the initials of the person checking the temperature.

Food items should never be kept in medication refrigerators. Refrigerators should be defrosted regularly and kept clean. Medication items in refrigerators should be checked for expiration dates monthly. The freezer area should include a monitoring device that alerts staff if power has been off to the unit long enough to raise internal temperature to a level that would affect stored medications. (See Figure 2)

**INFECTION CONTROL IN THE MEDICAL PRACTICE**

Infections are a leading source of patient injury. According to the Centers for Disease Control (CDC), health care-associated infections account for 1.7 million infections per year and over 99,000 patient deaths annually. CDC lists four major types of infections related to health care:

Urinary Tract Infections .....	32% or 544,000 infections/year
Surgical Site Infections .....	22% or 374,000 infections/year
Pneumonia/Lung Infections.....	15% or 255,000 infections/year
Bloodstream Infections .....	14% or 238,000 infections/year <sup>2</sup>

CDC issues infection control guidelines for a variety of health care providers and settings, which are available at [www.cdc.gov/ncidod/dhqp/guidelines.html](http://www.cdc.gov/ncidod/dhqp/guidelines.html). The following basic infection control patient safety practices are recommended.

**Hand Hygiene**

A variety of infections can be transmitted to patients through hand contact and through contact with instruments or supplies handled by health care workers. Standard precautions should be observed by all health care workers with all patients, regardless of contact or knowledge of patient infection status. These include hand washing before and after patient contact/immediate care area contact with soap and water or alcohol-based sanitizer.

The use of personal protective equipment (PPE) is required by the Occupational Safety and Health Administration (OSHA) whenever contact with body fluids may occur. Hand washing with soap and water or the use of alcohol-based sanitizing gels is required before and after patient or patient care area contact. CDC provides an interactive, Internet-based training program on hand sanitation for use by physicians and staff members. This free course is

**Figure 2: Medication Refrigerator Management**



This refrigerator should be defrosted and temp checks instituted.

Sample temperature log.

Refrigerator monitoring practices identified during a 2008 AHPIS Risk Assessment Service.

available at [www.cdc.gov/handhygiene/training/interactiveEducation](http://www.cdc.gov/handhygiene/training/interactiveEducation).

### Instrument Cleaning and Sanitation

The following broad guidelines should be followed with regard to instrument cleaning and sanitation. Some of these steps are incorporated in large-scale sterilization units in hospital operating suite or ambulatory surgical center (ASC) settings.

- When cleaning instruments, soak them in a covered container and ensure solutions completely cover instruments.
- When sterilizing instruments, place them in sealed sterilization bags with marker tape, or sealed containers with lids, as appropriate to the autoclave and instrument exposure.
- When storing instruments, leave them in sterile bags until use.
- Conduct a bio-equipment check of autoclave equipment regularly to ensure appropriate pressure and steam formation occurs in the equipment. Observe for rust and contaminant buildup inside the unit, and for door seal leaks. Repair or replace autoclave equipment as needed.

### OSHA CFR 29: The Bloodborne Pathogens Standard

Medical practices are required to meet requirements of the revised Bloodborne Pathogens

and Needlestick Prevention Standard, effective April 18, 2001, and 29 C.F.R. §1910.1930, as amended by HR 5178, January 24, 2000. OSHA provides an excellent learning e-tool for staff use and reference to specific parts of CFR 29, the Bloodborne Pathogens Standard. Visit the e-tool at [www.osha.gov/SLTC/etools/hospital/hazards/bbp/bbp.html#I](http://www.osha.gov/SLTC/etools/hospital/hazards/bbp/bbp.html#I).

The following broad guidelines should be followed with regard to biohazardous waste:

- Do not store biohazardous waste in areas used for patient contact or where patient contact materials or supplies are stored or sorted. Avoid staff work areas.
- Secure biohazardous waste in a separate, locked area accessible only to staff.
- Biohazardous waste containers should include a lid.
- Use red bags to keep contaminants from contacting the liner of nondisposable biohazardous waste containers. (See Figure 3)

### Sharps Container Placement

Sharps containers are designed to receive used sharps, which also are defined as biohazardous waste. The following basic guidelines should be followed with regard to sharps containers:

- Sharps containers should be easily accessible to staff members and easy to access.
- Sharps containers should be placed in each exam room or procedure room so

**Figure 3: Biohazard Waste**



Biohazardous waste closet door left open.

Biohazardous waste in open container.

Waste management practices identified in 2008 AHPIS Risk Assessment Service.

staff does not have to travel hallways with open sharps.

- Sharps containers should be placed in a secure holder that does not allow slippage during use.
- Sharps containers should be placed away from patient treatment areas or materials such as countertops, exam tables, exam gloves, and supplies.

Although the risk of cross contamination is small, there is the potential for opportunistic infection in the management of bio-hazardous sharps.

### Plants in Exam Rooms: Potential for Opportunistic Infection

Plants should be avoided in health care settings, especially in exam or treatment rooms. Although the risk of cross contamination is small, plant soil is known to carry mycobacterium of various types (m. avium and m. intracellulare are known as the m. avium complex and belong to the same genus as m. tuberculosis, which causes TB. M. fortuitum has been commonly involved in surgical site infections. These and other mycobacterium are commonly found in soil samples, including potted plant soils).<sup>3</sup>

In most health care settings, live plants are precluded from exam and treatment areas, and contact with plants or soil is avoided by health care workers for infection control reasons.<sup>4</sup>

### Damaged Cushions

Damaged exam table cushions may be a hazard to patient skin integrity as well as a harbor for bacteria. Compromised patients, particularly those who are aged or ill, may suffer skin tears on the rough edges of torn exam table cushions. In areas where post surgical wound care occurs, any exposure to body fluids may further contaminate open cushions and create a hazard of opportunistic infection. In any case, a torn or open cushion is impossible to properly sanitize and must be repaired or replaced. (See Figure 4.)

### Emergency Equipment and Crash Carts

Crash carts or boxes may be mandated by state regulation for certain types of medical practices. They should be carefully maintained and fully stocked or equipped to deal with emergencies (adult and pediatric). The crash cart should have a seal that can be easily broken but which indicates the cart has been used and should be checked and re-stocked. The cart should include oxygen, a defibrillator (may be the AED type), airway tubes and breathing masks for various sized adult and pediatric patients, and a stock of medications that may be needed in cases of cardiac arrest or shock.

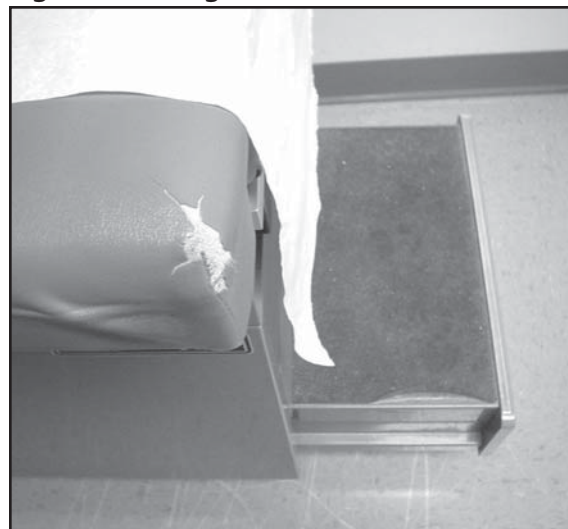
Crash carts should include a list of all medication items and expiration dates, which should be checked daily and re-stocked as needed. Once opened or used, it is imperative that crash carts or boxes be re-stocked.

### STAFF SAFETY

A wide variety of staff safety issues may exist in medical practices, in addition to those posed by exposure to accidental needle sticks and infection. The following basic guidelines should be followed with regard to staff safety.

- Ensure exterior areas of the practice and parking lots have sufficient and appro-

Figure 4: Damaged Cushions



Exam table with torn cover, damaged step tread.

ropriate lighting in early morning and late afternoon hours, when staff arrive and leave the practice.

- Encourage staff to leave the building together or in groups.
- Establish a safety plan and drill in the event of robbery, disgruntled patients, or other disturbances.
- Keep access to eyewash stations and other essential safety equipment clear at all times.
- Keep fire exits clear at all times. Conduct fire drills involving staff members with assigned roles and duties. Look for portable heaters, overloaded extension cords, and flammable items in storage closets.
- Observe and correct trip and fall hazards in staff work areas. Look for tears in carpets, extension cords and phone cables on floors, and inadequate step stools.
- Observe and correct infection control concerns in staff work areas. Ensure adequate numbers of sharps containers, appropriate red bag waste disposal, and appropriate biohazardous storage containers.
- Ensure staff members have access to vaccinations in accordance with OSHA regulations.
- Maintain an OSHA 300 log for needle stick injuries and investigate and correct situations that might lead to accidental needle sticks.<sup>5</sup>
- Observe and correct other obvious areas of concern in staff work areas. Several examples follow.

### Slip, Trip, and Fall Safety

It is surprising that slip and fall hazards account for so many health care injuries. According to the American Health Information and Management Systems Society, 15 patient falls per 1,000 visits can be expected annually in health care facilities.<sup>6</sup> The risk of falls increases with age and obesity.

A variety of facility safety concerns can contribute to fall injuries and injury to staff assisting patients. The following are common concerns.

- Lifting and transfer training for staff: Many practices allow staff members to assist pa-

tients into waiting automobiles after minor procedures. Few practices provide adequate lifting and transfer training for staff. This is especially important when staff work with obese patients and those with limited transfer and mobility capabilities. A physical therapist can provide essential training, and staff should use back braces and two person techniques when moving patients. These simple steps can help avoid many patient and staff injuries.

- Proper step stools in staff work areas: A common source of staff injury is the use of lightweight, inexpensive step stools in work areas, frequently in the medical records area. Stools should have grab bars attached and be constructed of sturdy metal materials. Lightweight plastic stools should be avoided due to the ease of turning over and the lack of grab bars for staff use.
- Damaged steps on exam tables: Exam tables see frequent use and become damaged over time. Many tables are equipped with step platforms. The nonslip treads and plastic surrounds on these platforms become worn or damaged over time. The condition of exam table steps should be monitored and repaired whenever nonslip material becomes worn, or when surrounds are damaged.
- Entryway mats and treads: Practice entries are the frequent sites of fall injury for patients, especially in cold or wet conditions. Entries should be monitored for safety. "Wet floor" signs should be used when appropriate. Mats should be in good condition, should lie completely flat, and should not have damaged edges or rolled up corners. Replace mats when they appear worn.
- Power cords and carpet damage: Power extension cords should not be stretched across walk areas but should be fixed to follow baseboards. Cords should never exceed rated use voltage or amperage. Do not tape cords or cables to floor areas. Carpet seams should be monitored for wear. Worn seams are a trip hazard and signal that carpet is in need of replacement.

- Weight ratings for exam tables, wheelchairs, and gurneys: Many older exam tables and other equipment may not be weight rated. According to the National Institutes of Health (NIH), obesity is a ‘national epidemic.’<sup>7</sup> In addition, obesity-related claims are increasing in every area of medical specialty. Practices are best protected by ensuring that exam tables, chairs, and other equipment used by patients are in good condition and have appropriate weight ratings. Practices should seriously consider limiting use of wooden-type exam tables and replacing them with metal cabinet-type exam tables. Practices should examine their current equipment and determine weight-bearing capacity. Weight rating notices are typically permanently affixed to the underside or side of examination tables.
- Grab bars at weight scales: One area of frequent falls is the weight scale commonly used in medical practices, ASCs, and outpatient settings. Placing grab bars or a walker near scales is a simple and inexpensive aid to protecting patients in these areas.
- Pull cords in patient bathrooms: In some settings, patient bathrooms are equipped with pull cords that allow patients to alert staff if they fall while using the facilities. Frequently, however, these cords are found tied in a manner that prevents them from being used. Commonly, cleaning staff tie these out of the way of mops and do not release them after cleaning. Pull cords should reach to floor level. High-visibility orange cording is highly recommended. Pull cords should be tested frequently.
- Grab Bars, Exam Tables: Many practices find that installing grab bars at exam tables assists patients in rising from the table and may prevent staff injury when staff members try to help patients rise to a sitting position. This is an inexpensive, easy-to-install safety feature that provides a real benefit to patients and staff members.

## FIRE SAFETY

Most serious patient injuries in health care facility fires occur due to smoke inhalation or because staff is not adequately trained in moving patients quickly out of a fire area. Health care facility fires have occurred due to malfunctioning light fixtures, space heaters, autoclaves, microwave ovens, and other commonly found equipment.

Smoke can obscure fire exit signs and limit visibility in a practice within 90 seconds of the start of a fire.<sup>8</sup> Staff must be trained to react almost instantly with a tested plan of action that will protect patients and themselves. Fire sprinkler systems may not extinguish all fires. Blazes that start in suspended ceiling spaces may not trigger fire suppression systems until the ceiling area is totally involved.

Many acronyms are used to assist staff in remembering how to react during a fire event. RACE is a commonly used, simple fire safety tool:

- **R – Rescue** patients and staff
- **A – Alarm** – sound an alarm
- **C – Close** – close doors to prevent spread of fire and to signify that the area behind the door has been cleared of all staff and patients
- **E – Evacuate** the facility

Common fire drill steps should include a specific task for each staff member. Staff should be trained to act in accordance with the practice fire plan, fulfill their task, assist others in the completion of their tasks, and quickly exit the facility with all patients and fellow staff members. Although staff members may be trained to use fire extinguishers, they should be counted on to clear the facility and save patients rather than act as firefighters. A limited fire plan example would include:

1. Fire tasks specifically assigned to each team member – for example:
  - a. Nursing staff should clear exam rooms and halls and move patients from the building using the nearest fire exit.
  - b. Front desk staff should collect a copy of the patient roster, and all

- current patient encounter forms, clear patients from the lobby and patient bathrooms, and move patients from the building using the nearest fire exit.
- c. Phone staff should contact the fire department or 911, report the fire and specific address, and exit the building while assisting patients.
  - d. Management staff and physicians should validate that all patient and staff areas are empty and that no patients have been left behind and move with staff and patients to a safe area.
2. Designated evacuation area — All staff and patients should move to a designated safe area. Staff should validate that all persons who were in the practice evacuated the building and should address any injured patients. The patient roster for the day should be used to validate that all patients are accounted for.
  3. Contact with fire responders — A management staff member or lead physician should be able to coordinate fire fighting efforts with fire responders. Fire fighters may need to know the location of potential flammables or accelerants (*i.e.*, paper medical records, X-ray films, oxygen bottles); chemicals (X-ray film developer, cleaning supplies); fire extinguishers; elevators and stairs; and a layout of the facility. Ideally, a copy of facility layout and a list of needed information are filed in advance with the local fire department.
  4. Management of injuries — Once the building has been evacuated, physicians and nursing staff should immediately assess each patient and verify if any have conditions that require further treatment or care.
  5. Verification of safety — Each patient should be asked if they had any other person with them, and verification should be made that all patients, family, and staff members are safe and accounted for.

Practice managers should invite area fire marshals to help them design a comprehensive fire plan and train staff in plan implementation. Fire departments can provide staff with fire extinguisher use training. Regular fire drills (one per quarter) should allow staff to train for this event and give management an opportunity to document that drills are taking place and are effective.

### **Supplemental Fire Recommendation**

Every medical practice fire will include the loss of some records through fire, smoke, or water damage. At a minimum, computer backup of all transactions should occur on a daily basis, and backup should be stored offsite. This can be accomplished through use of an offsite server or by physically removing backups from the facility to fire-proof storage.

A minimum of one week's backup should be kept, in the event backup drive(s) are damaged. In the event of a fire, various disaster services provide restoration services for facilities and files (when possible). Management should be aware of the services available in the practice area before these services are needed.

A fire plan is one part of a comprehensive disaster plan that would encompass other disaster events such as wind storm, flood, or other types of incidents.

### **CREATING A CULTURE OF COMPLIANCE AND SAFETY**

A variety of compliance and safety hazards exist in most health care facilities. Unfortunately, most safety and risk management programs operate retrospectively. Safety — and frequently compliance — issues are not addressed unless an injury occurs.

Compliance must extend beyond billing regulations and examine how we interact with a wide variety of regulations, laws, and standards. These may include fire marshal codes, OSHA and infection control requirements, medication management recommendations — and even just good common sense. Compliance officers can impact pa-

tient safety by ensuring staff members adhere to the requirements of law, regulation, and accreditation.

**Endnotes:**

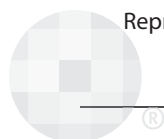
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8. Hallway security cameras captured billowing smoke that obscured exit signs and blocked visibility in 90 seconds or less during two health care facility fires observed in 2001. Observations from risk assessment services provided Long Term Health, LLC, Los Angeles, Calif.

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