Tools for Identifying Hazards and Improving Workplace Safety in Central Service

LEARNING OBJECTIVES
1. Explain the link between the work environment and providing safe patient care
2. Identify common injuries associated with physical, chemical and biological hazard categories
3. Identify resources to help improve workplace safety

MANY ORGANIZATIONS ARE TAKING A CLOSER LOOK AT THE link between the work environment and its impact on patient care and worker safety. A safe and healthy functioning Central Service/Sterile Processing (CS/SP) department will reduce errors and result in fewer patient and employee injuries. The recent AORN Journal article, Workplace Safety Equals Patient Safety, supported this concept. This article addressed the employee’s responsibility for reviewing new position statements, examining practices in the environment, and voicing suggestions and concerns to facility leaders.

This lesson will address safety concerns for CS/SP technicians and identify resources for improving workplace safety.

OBJECTIVE 1: EXPLAIN THE LINK BETWEEN THE WORK ENVIRONMENT AND PROVIDING SAFE PATIENT CARE
An unsafe work environment and malfunctioning equipment can lead to patient and employee injuries – from minor to severe. Losing a co-worker to an injury for a few hours, days or weeks can wreak havoc on the department’s schedule and work flow. When such a scenario occurs, stress points present themselves almost immediately, including strain and stress being placed on other employees who must work extra hours, become tired, experience work-related dissatisfaction, and perhaps even make mistakes that can lead to personal injury. Similar negative outcomes can occur when looking at other process flow areas in the CS/SP department.

Transparency, which means operating in a way that is easy for others to see the actions being performed, is a key For More Information:
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element of a healthy work environment. Understandably, it is not always easy for individuals to open themselves or their department up to possible criticism of issues; however, promoting a transparent workplace that encourages input and opinions and promotes effective, clear and consistent communication is critical for earning respect in the workplace and creating a safer, healthier work environment.

It is often said that the work environment directly reflects the product produced; therefore, the importance of a healthy work environment cannot be overestimated in the realm of CS/SP, where products delivered play a direct role in patient and employee safety and outcomes. The intricate work of decontaminating, sorting, inspecting, packaging, sterilizing and delivering reusable medical equipment to customers should be performed in an environment that encourages a safe, high-quality product.

Organizations should attempt to identify safety hazards before they become major problems. Communication of position statements and process changes across all service lines need to be delivered in a timely manner and those communications must be clear and concise. Organizations must always be looking to improve every aspect of the work environment for sake of employee and patient safety and satisfaction.

**OBJECTIVE 2: IDENTIFY COMMON INJURIES ASSOCIATED WITH THE PHYSICAL, CHEMICAL AND BIOLOGICAL HAZARD CATEGORIES**

Many physical hazards exist within the CS/SP department, and these can be grouped into three general categories: physical, chemical and biological. A physical hazard is defined as an agent or factor that can cause harm to the body with or without coming into contact with the body. Physical hazards can be ergonomic in nature and associated with repetitive movements; in CS/SP departments, these movements can include actions such as wrapping, washing, inspecting, transporting or lifting trays (improper lifting of heavy items can cause back strains or other physical injuries).

Wet floors, hanging cords or damaged flooring can lead to trips and falls and result in various physical injuries. Other sources of physical injuries in the department can include vibrations from heating and cooling systems or the operation of some processing equipment, exposure to extreme heat or cold due to malfunctioning equipment or improper handling of items.

A chemical hazard is a type of occupational hazard caused by exposure to chemicals in the workplace. Chemicals used in the CS/SP department, including enzymatics, detergents, cleaners, disinfectants, sterilants and other chemicals that may be needed for various functions performed in the department, all may present safety hazards. Improper exposure can cause short-term, acute or long-lasting health effects.

Strong chemicals are required to properly clean complex instruments and many chemicals have specific dilution mixtures to work properly; these chemicals can be dangerous if mixed with other substances. Chemicals can also have harsh fumes that can be irritating to staff and cause other adverse effects. It is imperative that chemical manufacturers’ instructions for use (IFU) are carefully and consistently followed to ensure personnel safety. Information on chemical safety, hazards and safe handling can be found in chemical safety data sheets (SDS); these should be available for every chemical used in the CS/SP department.

Biological hazards are also known as biohazards and refer to substances that pose a threat to human life. In the CS/SP environment, biological hazards are primarily associated with microbially-contaminated instruments that must be handled during reprocessing. New biological hazards occur with the emergence of microorganisms that are becoming resistant to today’s antibiotics. Providing employees with proper protection against biological hazards comes in many forms, including providing proper personal protective equipment and ensuring it is worn properly, and offering easy access to sharps containers. Biological monitoring products should also be used in strict accordance with the ICU. While the bacteria inside the normal biologic is not believed to be dangerous to humans, it is nonetheless bacteria that warrants respect and caution. Care should always be taken to follow the manufacturer’s instructions for use (IFU) and properly protect staff from any possible exposure.

**OBJECTIVE 3: IDENTIFY RESOURCES TO HELP IMPROVE WORKPLACE SAFETY**

To improve workplace safety in the CS/SP department, it is everyone’s

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responsibility to continually be on the lookout for hazards of all types. Resources are available (some free of charge, others offered for a fee) to help employees assess their workplace for possible issues and correct them before they become a problem. Any information used should come from trusted sources. A safety checklist or survey tool for the department can be an effective way to help assess overall safety. It is often helpful to use several resources to help evaluate the functions and operations of the CS/SP department. Employees should also understand that statistics are only useful if they are analyzed and acted upon; therefore, a system should be developed to track all issues and respond to them accordingly.

What follows are some resources that provide information that may be helpful when developing safety checklists.

### The Joint Commission

- **The Joint Commission (TJC)** - The document *Improving Patient and Worker Safety: Opportunities for Synergy, Collaboration and Innovation* released in 2012 is a free resource that cross references the Occupational Safety & Health Administration (OSHA) and TJC Standards for Healthcare together in one publication. Although written for general healthcare, there are a multitude of tools and resources that can be applied directly to the CS/SP environment. For more information, visit: [www.jointcommission.org/improving_patient_worker_safety/](http://www.jointcommission.org/improving_patient_worker_safety/).

  TJC’s Boosterpak, *High-Level Disinfection (HLD) and Sterilization*, is a searchable document that highlights the high volume of non-compliance scores in healthcare. This document was developed to help identify areas of inconsistency in the HLD process and to provide guidance for compliance. This document is free to any TJC-accredited facility and may be accessed at: [www.jointcommission.org/assets/1/6/TJC_HLD_BoosterPak.pdf](http://www.jointcommission.org/assets/1/6/TJC_HLD_BoosterPak.pdf).

### Association of periOperative Registered Nurses (AORN)

- **Association of periOperative Registered Nurses (AORN)** - AORN has several resources to assist in assessing safety in different areas. *Note: Many official surveys and policies use standards put forth from organizations such as AORN.* The information provided by AORN is often directed at care of the patient in the Operating Room; however, this information is also useful to the CS staff to help maintain standards. The following are AORN-provided toolkits, documents and committees developed to address departmental safety. These documents can be accessed at [www.aorn.org](http://www.aorn.org).

  - Sharps Safety Toolkit
  - Just Culture Toolkit
  - Fire Safety Tool Kit
  - Ergonomic Tool 6: Lifting and Carrying Supplies
  - Ergonomic Tool 7: Pushing, Pulling and Moving
  - Workplace Safety Tool Kit
  - The Impact of Workplace Safety Issues in the Sterile Processing Department
  - Ergonomically Healthy Workplace Practices
  - Creating a Practice Environment of Safety
  - The Sterile Processing Materials Management Specialty Assembly

### Occupational Safety and Health Administration (OSHA)

- **Occupational Safety and Health Administration (OSHA)** - The OSHA website has a wealth of information on various topics of safety and health management systems that all staff members can use to improve processes and workflow. Topic areas covered include understanding how employees contribute to the risk of injury and illness. Upon entering the OSHA website, one will find a searchable A to Z index, along with groupings of different materials in viewable indexes (visit [www.osha.gov/dsg/hospitals](http://www.osha.gov/dsg/hospitals)). OSHA also has an eTool that addresses specific safety issues found in CS/SP. This tool can be accessed at: [www.osha.gov/SLTC/etools/hospital/central/central.html](http://www.osha.gov/SLTC/etools/hospital/central/central.html).

### International Association of Healthcare Central Service Materiel Management (IAHCSMM)

- **International Association of Healthcare Central Service Materiel Management (IAHCSMM)** - IAHCSMM offers many resource documents to members, including those that address immediate use steam sterilization, loaned instruments, humidity level changes, Creutzfeldt-Jakob Disease and more. There are also sample CS/SP documents that allow users to develop competencies, policies and checklists. Resource may be accessed at [www.iahcsmm.org/resources/resource-documents.html](http://www.iahcsmm.org/resources/resource-documents.html).

### Facility/Company Web Pages

- **Facility/Company Web Pages** - A healthy work environment requires that staff have current and readily accessible resources at their disposal. Items such as policies, procedures, statement of policy, manufacturer instructions for use (IFU) and safety data sheets (SDS)
are imperative to a healthy, safe workflow process. Most facilities and companies have web pages where the bulk of this information is located. It is essential that this important information is organized and monitored to ensure the most current data is available.

- **Unofficial Surveys** - Unofficial surveys can be very effective tool for monitoring department safety. Unofficial surveys can be conducted by individuals from either inside or outside the facility; their job is to “walk” the department as a surveyor would to look for areas in need of improvement (they are often provided a checklist or survey tool for the department). These unofficial surveyors are invited and do not have to work within the CS/SP department; however, they should have a basic knowledge of the processes and standards required in the CS/SP area. Many times, representatives from Risk Management, Infection Prevention, Facilities Management, Biomedical Engineering and Environmental Services are asked to take part in these surveys. Employees who sit on committees that involve the workings of CS/SP can also make suitable unofficial surveyors.

Bringing in external sources for unofficial surveys enables the department to be audited through fresh eyes and minds. Because these individuals do not work within the department, they are able to see things that the CS/SP staff may have grown accustomed to and inadvertently overlooked.

**CONCLUSION**

A healthy work environment can directly influence the product produced, and it can also reduce employee injuries and improve patient outcomes. It is everyone’s responsibility to continually work at making the environment a safe, well-functioning and healthy one.

Staying open to views of others earns respect for all involved. Keeping the lines of communication direct, open and truthful will also help with putting all the details together to ensure the work environment functions at its best. CS/SP professionals should use as many reliable resources to help them stay up to date on standards of care, abreast of ways to reduce workplace hazards, and able to address other pertinent issues impacting the CS/SP profession.

**RESOURCES**


Occupational Safety and Health Administration. www.osha.gov.


