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Maintaining a Safe Workplace

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Clinical research focuses on the safety of the subject, but the safety of site personnel also requires diligent attention. Every workplace should appoint and obtain training for a safety officer who is responsible for training personnel in safe practices and ensuring that the work environment is safe for both subjects and site personnel. Site personnel, in turn, are responsible for performing their duties in a safe manner, keeping an eye on study subjects, and reporting unsafe conditions to the safety officer.

Fire

If there is a fire emergency:

R - Rescue anyone in immediate danger.

A - Pull the fire alarm and call 911 to report the fire.

C – Confine and contain the fire by closing doors and windows.

E - Evacuate the premises, or extinguish fire if safe to do so.

To prevent fires and mitigate danger if they occur:

- Correctly install and periodically inspect electrical equipment and wiring.
- Install and periodically inspect fire alarms and emergency lighting.
- Ensure that the exit paths and doors are clearly marked and unobstructed.
- Install, inspect and train personnel on the use of fire extinguishers and other fire suppression equipment.
- Limit the use of open flames and very hot objects, and require safeguards and proper training for people who work with them.

Infectious Disease

Site personnel and study subjects can transmit infectious diseases to each other. Workplace pressures do not justify relaxing vigilance against infectious disease. Sensible precautions include:

- Take sick leave if you are ill with an infectious disease. Do not expose people in the workplace to infection. Cover any open sores or wounds.
- Take appropriate precautions during a study visit with a sick subject, or postpone the visit. Hand washing is the most important step.
- Follow universal precautions at all times:
    - When working with body fluids, use appropriate barrier protection (e.g., lab coats, gloves and goggles) at all times to prevent skin and mucous membrane contamination with blood, body fluids containing blood, or other body fluids to which universal precautions apply: cerebrospinal, synovial, pleural, peritoneal, pericardial and amniotic fluids, semen and vaginal secretions. Use a face shield when processing fluids containing known or suspected infectious agents.
    - Wear gloves when there is the potential for contact with blood, other potentially infectious material, or items and surfaces contaminated with these materials.
    - Wear a face shield during procedures that may generate droplets of blood or other body fluids.

- Wear protective body clothing (lab coat, leg covering, and closed-toe shoes) when there is a potential for splashing of blood or other body fluids to which universal precautions apply.
- Wash hands and other skin surfaces thoroughly and immediately if contaminated with blood, body fluids containing visible blood, or other body fluids to which universal precautions apply.
- Wash hands immediately after gloves are removed.
- Avoid accidental injuries by needles, scalpel blades, laboratory instruments, etc. when performing procedures, cleaning instruments, handling sharp instruments, and disposing of used needles, pipettes, etc.
- Dispose of used needles, syringes, scalpel blades, pipettes and other sharp items in puncture-resistant sharps containers marked with a biohazard symbol.

Hazardous Materials

Hazardous materials include chemicals, blood and other body fluids, biological specimens, study drugs, and other solid, liquid and gaseous materials found in the workplace and used in specific studies. The safe use and handling of hazardous materials requires:

- Informing personnel of hazardous materials they may contact in their work area.
- Wearing personal protective accessories when operating equipment or handling or using equipment with hazardous materials, hazardous waste, blood or other body fluids.
- Being aware of the toxic properties of chemicals.
- Using chemicals properly and safely, and only with proper training.
- Packaging and shipping hazardous materials only by Hazmat-certified personnel.
- Handling radioactive materials only by authorized personnel.
- Not storing or consuming food and beverages in proximity to study drug, biological samples, or hazardous materials.
- Disposing of hazardous materials properly and carefully, in appropriate containers. If a waste receptacle contains broken glass or other hazardous material, label it to warn janitorial personnel of the potential hazard.

Work Stations

Poorly designed workstations can cause discomfort, pain and stress injuries. A safe, well-designed workstation requires a number of features, including:

- Furniture that allows the body to be in a relaxed, natural position with the arms hanging relaxed from the shoulders. If a keyboard is used, arms should be bent at right angles at the elbow, with the hands held in a straight line and the forearms and elbows close to the body. The head should be in line with the body and slightly forward.
- Work surfaces that are adjustable so work can be done at about elbow height, whether sitting or standing.
- Adjustable seat height, chair seat pan tilt, backrest angle, and backrest height to ensure the back is supported, thighs are horizontal and feet are flat on the floor. Armrests can reduce arm discomforts. They should be short and low enough to allow workers to get close to their work surfaces.
- A computer display monitor positioned with the top of the screen at approximately eye level. This height allows the eyes to view the screen at a comfortable level, without having to tilt the head or move the back muscles.
- Computer monitors placed parallel to direct sources of light, such as windows and overhead lights, to minimize glare. Use window coverings and glare filters if necessary. Keep the screen clean.

- Task lamps to supplement ambient lighting.

Equipment

Electrical and mechanical equipment injures many people every year, usually to their great surprise. The safe use of equipment requires:

- Operating equipment with proper training and supervision.
- Not operating equipment that appears to be unsafe, and reporting it to the safety officer.
- Using electrical equipment in accordance with manufacturer and UL requirements.
- Not attempting to repair equipment without authorization by the safety officer.

Electrical Wiring

Electrical wiring is a potential source of life-threatening fire and electrocution. To limit risks from electrical equipment and wiring, ensure:

- Electrical wiring is installed and maintained by qualified personnel under the safety officer's supervision.
- The safety officer annually inspects electrical cords, including those behind furniture and equipment, for fraying and exposed wiring.
- Fluids are not close to computers and other electrical equipment.
- Extension cords:
    - Are used only where fixed wiring is not feasible.
    - Are kept in good repair and free from defects in their insulation.
    - Are not kinked, knotted, abraded or cut.
    - Are placed to avoid tripping hazards.
    - Are not placed through doorways with doors that can close and damage the cord.
    - Have three wires to ensure grounding (except for appliances and office machines without this requirement).

Housekeeping

Poor housekeeping can lead to fires, injuries to personnel, and unhealthy working conditions. Mishaps caused by dropping heavy cartons, office equipment, and supplies can cause serious injuries to personnel. Be sure to:

- Configure workspaces with safety considerations in mind.
- Keep workspaces clean and orderly.
- Keep passageways and aisles clear of obstructions.
- Keep cabinet drawers and doors closed when not in use.
- Place heavy files in bottom drawers.
- Replace or repair furniture (especially chairs) that presents a safety hazard.
- Clean up spills, drips and leaks immediately to avoid slips and falls.
- Place trash in the proper receptacles.

Storage Areas

Messy and overcrowded storage areas are both inefficient and unsafe. To ensure safe storage:

- Neatly stack materials so they are readily accessible and will not topple over.

- Do not stand on chairs, boxes, shelves or stools to reach for objects. Instead, use step stools or ladders. It may require two people to safely store or retrieve materials.
- Label materials so they can be easily found.
- Do not place materials within 18 inches of ceiling fire sprinkler heads or Halon nozzles.
- Do not obstruct aisles or hinder emergency evacuation routes.

Noise

By interfering with communications and concentration, excessive noise can result in potentially dangerous errors. It can also cause stress and reduce productivity. To reduce noise:

- Conduct loud conversations away from other personnel.
- Use headphones when playing music.
- Select quiet equipment, if possible.
- Properly maintain equipment. Lubricate parts that can cause noise.
- Place loud equipment away from personnel.
- Isolate and reduce noise sources with sound-absorbing barriers, covers and materials.
- Perform noisy tasks at times that minimize interference with other work activities.

Stretching

When seated at your desk for extended periods without much movement, stand every 15-20 minutes and gently perform the following stretches:

- Roll your shoulders in forward and backward circles.
- Bend your neck and roll your head clockwise and counter-clockwise.
- Interlace your fingers and stretch your arms over your head, preferably with palms facing up.
- Place your hands on your hips and arch your back.
- Extend your legs several times to prevent blood clotting.

Study Subjects

Do not meet with a subject or potential subject alone in the office or accompany him or her outside the office unless you are sure he or she poses no physical danger to you.

Reporting Unsafe Conditions

- Report the following conditions to the safety officer immediately:
    - Slippery floors or walkways
    - Tripping hazards
    - Missing or inoperative entrance and exit signs and lighting
    - Poorly lit stairs
    - Loose handrails or guard rails
    - Loose or broken windows
    - Dangerously stacked materials
    - Open or broken windows

- Unlocked doors or gates
- Blocked aisles or exit doors
- Blocked fire extinguishers or fire sprinkler heads
- Overheated equipment
- Evidence of smoking in non-smoking areas
- Roof leaks

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