

10 Sources of Cross-Contamination in Hospitals



Cross-contamination is a major concern for anyone working in a hospital or clinical setting. This includes doctors and nurses as well as other hospital staff.

There are plenty of opportunities for cross-contamination to occur. Most of these opportunities may be expected, but there are some opportunities that all health care professionals should be aware of that may not be as obvious.

Hospital Kitchens

Foodborne illnesses can be a real problem in the hospital setting. Kitchen staff that does not follow hygiene protocols can easily transfer a pathogen from uncooked food to finished meals, which are delivered to the patient.

Dishwashing can also be an issue. All dishes and silverware should be run through a dishwasher that meets the proper temperature requirements to prevent cross-contamination.

Hand Washing

While it may seem obvious, proper hand washing is the single most important step in preventing cross-contamination. Hospital and clinical staff should wash their hands thoroughly before and after:

- Eating or drinking
- Smoking

- Applying cosmetics
- Preparing food
- Performing clean or sterile procedures
- Working with a patient

Staff should also wash their hands after handling bodily fluids, waste, contaminated equipment or soiled linens.

Sterile Processing and Surgical Instruments

Recently, there have been quite a few stories in the news about infections occurring after surgery and after diagnostic procedures. There are a number of reasons this could occur, but one of the more overlooked reasons is sterilization.

The sterilization procedure is often taken for granted, and cross-contamination can easily occur if proper cleaning methods are used prior to autoclaving. For example, the lumens and channels of an endoscope need to be cleaned thoroughly to remove debris that may be carrying pathogens.

Using devices that are single-use only can greatly decrease the risk of cross-contamination, but proper sterilization techniques must still be practiced.

Crash Carts and Procedure Trays

Another place that can harbor bacteria is the crash cart. When there is an emergency, hospital staff members are worried about saving lives, not what germs are on the life saving equipment. But after the emergency is over, the crash cart and everything on it should be cleaned, especially the defibrillator paddles, even if they weren't used.

Procedure trays are supposed to contain freshly sterilized instruments and other medical supplies, but the number of people that handle procedure trays should be limited. Studies have shown that the integrity of sterile packaging can be compromised as more people handle the sterilized instruments, making it more likely for microscopic tears or holes to occur and compromise sterility. It is best to keep the number of people handling procedure trays to a minimum.

Computer Keyboards

One of the most commonly overlooked areas of possible pathogen transmission is the computer keyboard. Just about every piece of technology in a hospital has some sort of input device, which is typically a keyboard or touch screen.

Keyboards have nooks and crannies between each key that can harbor bacteria, and the staff doesn't usually have time to clean a keyboard properly. One way to prevent this type of cross-contamination is with a fully sealed keyboard that is easy to wipe down quickly.

Although the touch screen harbors fewer bacteria than a keyboard because of its smooth surface, it can still be a smorgasbord of germs. To prevent cross-contamination when using a touch screen, it's imperative that each employee wash their hands thoroughly after each use.

Soft Surface Contamination

Soft surfaces such as cloth seat cushions, bed clothes, privacy curtains, cotton towels and even carpet can harbor bacteria and viruses that can be easily transmitted to anyone who comes in contact with the surface.

These soft surfaces should be thoroughly cleaned and decontaminated regularly. **Another way to prevent these surfaces from spreading contaminants is to use antimicrobial textiles.**

The Patient's Environment

Studies have shown that one of the most problematic areas for cross-contamination is the patient's entire bedside area including the:

- Bed
- Bedside table
- Bedframe and rails
- Bed clothes
- Bedside chair

Unfortunately, nurses and doctors access this area whenever they deliver patient care, making the possibility for cross-contamination very high. Hand washing is the single best prevention of cross-contamination in this instance. Hospital staff should wash their hands before and after every encounter with a patient.

Patient Charts and Medical Records

A patient's medical records are handled by a number of different people, making them prime opportunities for transferring bacteria and other pathogens. Again, hand washing is the number one way to prevent this type of cross-contamination.

Medical Tape

Medical tape is an often overlooked risk. Most rolls are supplied as clean, not sterile, and are used for more than one patient. One easy way to reduce the risk of pathogen transmission is to use only one roll of tape for each patient. Purchasing smaller rolls or single use tape that is supplied in sterile packaging can help reduce waste.

Diagnostic Equipment

Diagnostic equipment can be a primary source for pathogen transmission if not properly cleaned between patients. All diagnostic equipment should be wiped down with a germicide such as Cavicide to prevent the risk of possible contamination.