

Nosocomial infections



**ASSIGN
BUSTER**

Remember your mother always reminding you to wash your hands? We have all been told to do so at one point in our lives or another. As children we grudgingly obeyed, not really appreciating the wisdom and love behind the statement. For most of us, the value of hand hygiene is superficial; a means to clean soiled, unsightly hands. We were not aware that washing our hands regularly was a primary defense against many types of diseases.

As a child it was imposed upon us by our parents, but as we grew older, we realize its true value but no longer practice it on a regular basis, finding it inconvenient and a waste of time. The truth is that hand hygiene is one of our best defenses against diseases. The simple act of washing and rubbing our hands vigorously with soap and running water is an effective shield against bacteria-borne infections. And this is especially true for healthcare professionals who are exposed to bacteria on a regular basis.

People go to hospitals and other healthcare institutions for medical attention and treatment of their ailments. However, while most people get well after a trip to the hospital, there are cases where people get worse because of exposure to harmful microorganisms that abound in these hospitals. In hospitals, bacteria proliferate because of the high concentration of ill people at one place at any one given time, and they can cause secondary infections to people going to the hospital. These types of infections are caught secondary to a hospital visit or stay, and are called nosocomial infections.

The Center for Disease Control (CDC) defined nosocomial infections or healthcare-acquired infections as “infections that patients acquire during the course of receiving treatment.” (Boyce, 2002, 29) And because these patients did not initially harbor these nosocomial infections, they could only

have been acquired while in the hospital, while in contact with doctors and nurses who go from one sick patient to another. These health care professionals become the main mode of transmission for nosocomial infections, and this is made even worse especially if doctors and nurses do not practice proper hand hygiene.

It does not take a rocket scientist to figure it out. In hospitals, most patients are bed-ridden, not allowed to go from one place to another. Therefore, the risk of them directly infecting another patient is slim. Only doctors and nurses move about from one patient to another, in constant physical contact with the patients. Because the hands are their main point of contact, the hands become the main vehicle of microbes as well. They “stick” to the doctors and nurses hands, and remain there until they are “dropped off” somewhere else.

This process goes on and on until the bacteria find a suitable host, which is almost always, the human body. Inside the human body, these microbes will colonize and proliferate, causing many types of health problems. These transient, disease causing bacteria use the skin as temporary vehicles to get from one point to another. However, because these microbes are transient and non-colonizing on the skin surface, they are easily removed by proper and rigorous hand washing with an anti-microbial soap and water. Therefore, proper hand washing can halt the spread of disease-causing bacteria in their tracks. If doctors and nurses fail to clean their hands, they become virtual havens for microbes, transmitting and causing nosocomial infections.

The figures are alarming. Studies have shown that one out of every 20 patients contract nosocomial infections because of inadequate hygiene

practices in most American hospitals. These nosocomial infections “ kill an estimated 103, 000 people in the United States a year, as many as AIDS, breast cancer and auto accidents combined.” (McCaughey, 2005, 1) The World Health Organization says that nosocomial or healthcare acquired infections are one of the leading causes of morbidity and mortality rates worldwide. (Ducel, 2002, 7) And all of this because of dirty hands. And all of these deaths and suffering are unnecessary. They can be easily remedied. If every healthcare worker would faithfully practice proper hand hygiene as they move from one patient to another, “ there would be an immediate and profound reduction in the spread of resistant bacteria.”(Goldmann, 2006, 122)

From every point of contact with patients, the hands of doctors and nurses are dirty, carrying infection-causing microbes; and as doctors and nurses attend to their patients' needs, these bacteria move into the patients. While most of these bacteria can normally be fought off by the body, the compromised bodies of patients already weakened by an existing sickness become easy targets for these parasites, and nosocomial infections can easily set in. And because these infections attack a weak immune system, these can lead to more serious complications and even death.

As the main vectors of nosocomial infections, doctors and nurses can prevent the spread through appropriate hand-sanitizing procedures. Hand hygiene is the single most important patient care practice that health care providers can do to prevent cross contamination and nosocomial infection. Some may say that hand hygiene is made redundant by wearing of antiseptic gloves on a regular basis. However, even if doctors and nurses

wear gloves, it will also be contaminated if the hands are not clean in the first place. These gloves must be worn and removed using the hands, and so the cycle of contamination perpetuates itself in the hands of doctors and nurses with dirty hands.

The premise of hand washing is very simple and very effective. Microbes are parasites. They depend on a host to live and reproduce themselves. However, bacteria are not mobile; they do have the means to move from one place to another. As such, they depend on outside help to move about and find new hosts to infect. This help comes in the form of doctors and nurse, who because of their many responsibilities, forget to clean their hands, or do so incorrectly. The anti-microbial property of soaps plus the rigorous friction of the rubbing of the hands can easily remove, weaken, or even kill these transient, infection-causing microbes before they can cause anyone any more harm. As such, a system-wide must be enforced, making proper hand hygiene mandatory for all doctors and nurses. Hand hygiene stations must be installed all over hospitals to make it easy for healthcare workers to clean their hands anytime.

Indeed nosocomial infections can exact a high price. But what is even more unfortunate about nosocomial infections is the fact that it can be avoided. These healthcare associated infections are unnecessary tragedies that can be easily prevented with proper sanitation and hygiene procedures.

Of course it is important to note that hand hygiene or hand washing is not enough. It must be done properly, following certain guidelines. It is not enough to clean the hands; they must be disinfected. Normal or ordinary hand washing is the same as no hand hygiene at all. This means that hand

washing must be done right, or not at all because it does not make any difference to harmful microbes or the health of the patients. Hand hygiene depends on the case and the area of the hospital involved. Normal hand hygiene should be done for at least a minute, with vigorous rubbing of the two hands against each other. Plain soap has been proven to effective against microorganism because the soap lifts the microbes off the surface of the skin to be rinsed off by running water.

Hand hygiene need not be complicated or costly. All it takes is soap, running water, and friction, and the discipline to do it regularly and properly. The key is to make it a habit. There is no dearth of evidence showing that hand washing is effective in halting the spread of infections; the problem is that very few people in the health care industry practice hand hygiene in compliance with regulations. Most wash their hands but do so inappropriately, which is useless in itself.

While stopping the spread of nosocomial infections is complex, there is no denying the fact that the first line of defense against nosocomial infections is hand hygiene for nurses and doctors. Simple adherence to proper cleaning/disinfecting procedures is all that is needed to prevent needless infections from spreading any further and causing more harm. It is simply a matter of discipline.

First do no harm... that is the adage that all health workers swear by. It is ironic that nurses and doctors should also be the main vectors of nosocomial infections. These nosocomial infections are the shame of the healthcare system because it can be prevented with faithful compliance to proper hygiene procedures. The solution lies literally in our hands. If we don't clean

our hands, then it is dirty with the needless suffering and death of patients from nosocomial infections. Our dirty hands are guilty hands.

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