

What Do We Need To Know To Prevent And Control Nosocomial Infections Completely?

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Introduction: Nosocomial infections are a widespread problem around the world. Nowadays, only 1/3 of nosocomial infections can be prevented with the Infection Control Programs. The other 2/3 cannot be prevented. In the USA, 31 billions of dollars are spent in the treatment of nosocomial infections per year. **Purpose:** The purpose of this study is to demonstrate how this 2/3 of nosocomial infections could be controlled with the use ancient medicines reasoning, such as Traditional Chinese Medicine and Hippocrates theories. Another goal is to make evident the possible economy to healthcare when using these techniques and tools in the treatment of nosocomial infections. **Methods:** The methodology used was a review of studies, such as those presented by Hippocrates (“Natural forces within us are the true healers of disease.”), as well as others from oriental medicines, which comprehend the disease as originated from three factors: external (exposure to cold, heat, humidity, wind and dryness), internal (emotional) and dietary. **Findings:** When comprehending the patient in a broader view, considering the energy imbalances of Yin, Yang, Qi, Blood and Heat retention and preventing invasion of external factors, it is possible to control and prevent better more nosocomial infections. **Conclusion:** The 2/3 of not controlled nosocomial infections cannot be prevented because of the reasoning used in the treatment of infections in Western Medicine. When using ancient oriental medicines reasoning, a different thinking can be used. According to Einstein, “We cannot solve our problems with the same thinking we used when we created them.”

A nosocomial infection is contracted because of an infection or toxin that exists in a certain location, such as a hospital. People now use nosocomial infections interchangeably with the terms health-care associated infections (HAIs) and hospital-acquired infections. In 1988, the Centers for Disease Control and Prevention (CDC) published two articles on nosocomial infections (NIs) and certain types of NIs’ criteria for surveillance purposes. Nosocomial infections refer to any systemic or localized conditions that result from the reaction by an infectious agent or toxin.¹

The infection is developing in all high, middle and low income countries. The CDC estimated that the cost of events related to NIs was an average of \$2,100, and varied from \$680 for urinary tract infections to \$5,683 for respiratory tract infections in the United States of America.²

An intensive care unit (ICU) is one of the hospital wards critical in the treatment of many serious diseases, which needs particular cares. Despite having a prominent role in the care of patients with infections, ICUs cause some complications and death, and increases the costs imposed on patients and society.³ The incidence of NIs related to mechanical ventilation, catheter insertion and some invasive procedures are more than that in other hospital wards, which do not carry such procedures.⁴

Classification of NIs is critical for any surveillance program. Traditionally, a time cut-off of 48 hours after admission is used to differentiate between hospital and community acquired infections. However such a cut-off point does not present the patients’ carrier status that can cause the infection. In an attempt to solve the problem, a classification based on pathogenesis of infection and the criteria for carrier status were offered.⁵ Three types of infections in ICUs including primary and secondary endogenous, and exogenous infections are defined by carrier status. Only, secondary endogenous and exogenous infections are real infections acquired in ICUs.⁶

The overall incidence of NIs is 6.1% to 29.6% in pediatric ICUs. Using the CDC definition of NIs, which is defined as infection occurring 48 hours after admission, it was shown that in a sample of 1239 pediatric patients in 2009 the incidence of NIs was 24.5 per 1000 person days, and that the length of stay of patients with NI in ICU was higher than that without the infection.⁷

Overall, many studies have focused on the epidemiology, risk factors, and prevention methods in adults patients. However, there have been limited studies on NI in pediatric patients.²

The current issue of Iranian Journal of Medical Sciences publishes a paper by Jiří Žurek, and Michal

Fedora titled “classification of infections in intensive care units: A comparison of current definition of hospital-acquired infections and carrier state criterion.” The paper compares the classification of NI based the CDC definition of the infection and carrier state criterion. The article is highly important in showing the two definitions of NIs. However, the use of each of the definitions in surveillance programs can cause confusion.

Lacking a widely-accepted standard definition for infections, such as nosocomial infections, can lead physicians to incorrect diagnosis and treatment of infections. The first study about hospital infection in ICUs in Iran showed that for correct comparison and control of hospital infections, we need to use international standards in population of study,⁸ to be able to have correct comparisons and plans to control infections.

In addition, it is better that the cut-off time and carrier status of admitted patients are compared in several aspects including diagnosis, burdens of diseases in the community, health care workers' concern about the origin of infection, various precautions and use of various diagnostic techniques. Nosocomial infections is over estimated in the cut-off time definition and underestimated in carrier state definition protocol.

A nosocomial infection is contracted because of an infection or toxin that exists in a certain location, such as a hospital. People now use nosocomial infections interchangeably with the terms health-care associated infections (HAIs) and hospital-acquired infections. For a HAI, the infection must not be present before someone has been under medical care. One of the most common wards where HAIs occur is the intensive care unit (ICU), where doctors treat serious diseases. About 1 in 10 of the people admitted to a hospital will contract a HAI. They're also associated with significant morbidity, mortality, and hospital costs. As medical care becomes more complex and antibiotic resistance increases, the cases of HAIs will grow. The good news is that HAIs can be prevented in a lot of healthcare situations. Read on to learn more about HAIs and what they may mean for you.

Bacteria, fungi, and viruses spread mainly through person-to-person contact. This includes unclean

hands, and medical instruments such as catheters, respiratory machines, and other hospital tools. HAI cases also increase when there's excessive and improper use of antibiotics. This can lead to bacteria that are resistant to multiple antibiotics.

The responsibility of HAI prevention is with the healthcare facility. Hospitals and healthcare staff should follow the recommended guidelines for sterilization and disinfection. Taking steps to prevent HAIs can decrease your risk of contracting them by 70 percent Trusted Source or more. However, due to the nature of healthcare facilities, it's impossible to eliminate 100 percent of nosocomial infections. Some general measures for infection control include:

- Screening the ICU to see if people with HAIs need to be isolated.
- Identifying the type of isolation needed, which can help to protect others or reduce chances of further infection.
- Observing hand hygiene, which involves washing hands before and after touching people in the hospital.
- Wearing appropriate gear, including gloves, gowns, and face protection.
- Cleaning surfaces properly, with recommended frequency.
- Making sure rooms are well ventilated.

To reduce the risk of UTIs, your healthcare provider can:

- Follow the aseptic insertion technique to minimize infection.
- Insert catheters only when needed and remove when no longer needed.
- Change catheters or bags only when medically indicated.
- Make sure the urinary catheter is secured above the thigh and hanging below the bladder for unobstructed urine flow.
- Keep a closed drainage system.

Biography:

Huang Wei Ling, born in Taiwan, raised and graduated in medicine in Brazil, specialist in infectious and parasitic diseases, a General Practitioner and Parenteral and Enteral Medical

Nutrition Therapist. Once in charge of the Hospital Infection Control Service of the City of Franca's General Hospital, she was responsible for the control of all prescribed antimicrobial medication and received an award for the best paper presented at the Brazilian Hospital Infection Control Congress in 1998. Since 1997, she has been presenting her work worldwide, working with the approach and treatment of all diseases of all systems of the human body in a holistic way, with treatment guided through the teachings of Traditional Chinese Medicine and Hippocrates. (tarsal conjunctiva) that leads to distortion of the eyelid with buckling of the lid (tarsus) so the lashes rub on the eye (trichiasis). These lashes can lead to corneal opacities and scarring and then to blindness. Linear scar present in the sulcus subtarsalis is called Arlt's line (named after Carl Ferdinand von Arlt). In addition, blood vessels and scar tissue can invade the upper cornea (pannus). Resolved limbal follicles may leave small gaps in the pannus (Herbert's pits).