

Letter to the Editor

Prevention of healthcare-associated infections: protecting patients, saving lives

Sir,

Healthcare-Associated Infections (HAIs) are those infections which the patients acquire during the course of receiving treatment and are not present or incubating at the time of admission. It also includes infections which appear after discharge and occupational infections among healthcare staff.¹ These infections are mostly caused by viral, bacterial or fungal pathogens and the most common types of HAIs include: blood stream infections, pneumonias (e.g. ventilator-associated pneumonia), urinary tract infections and surgical site infections.² According to World Health Organization, for every 100 hospitalized patients at any given time, 7 in developed and 10 in developing countries are getting at least one HAI. Many countries lack strong surveillance system on HAIs and it remains a serious problem, which no institution or country can claim to have solved, despite huge efforts.³

The prevalence of HAIs in developed countries varies between 3.5% and 12% whereas in developing countries it is around 5.7% to 19.1%. European Centre for Disease Prevention and Control has reported 7.1% as the prevalence of HAIs and it estimates around 4 million patients are being affected every year in Europe. Incidence of HAI's in United States was reported to be around 4.5%. According to a multicentre study in Europe 30% of patients admitted in Intensive Care Units (ICU) are affected by HAIs, as the usage of invasive devices is more in ICUs.⁴ Limited data are available from developing countries, but HAIs are more frequent in these low resource settings when compared to developed countries. The occurrence of ICU related infections are three times more common and newborn infections are 3-20 times higher in these settings. Surgical site infections are the leading cause of HAIs in developing countries, which affects around two third of operated patients, which is nine times higher than developed countries.³

Factors which may result in these HAIs are inappropriate use of drugs, non-adherence to precautionary measures and underlying patient conditions like immune suppression.² Apart from these, health care delivery in low resource settings have some inherent problems such as poor infrastructure, inadequate hygiene, understaffing, overcrowding and lack of national policies for control of these HAIs. These infections prolong the period of stay in

hospitals, result in long-term disability, create antimicrobial resistance, pose a significant financial burden on the patients as well as health systems and also lead to unnecessary deaths.³ Annual financial losses accounts to 7 billion Euros in Europe and 6.5 billion dollars in United States. Financial burden in low resource settings are poorly reported, but they create a huge burden on their already weak economies.⁵

To reduce the burden of HAIs, the major areas which have to be given due consideration are: a) healthcare facilities need to follow strict infection control protocols; b) to improve surveillance on HAIs; c) to implement standard precautions such as hand hygiene practices at bedside; d) educating the staff about the need to follow preventive practices and e) encouraging research in identifying the local factors for HAIs and validation of surveillance mechanisms.³ Most of the preventive and control measures, such as maintaining hand hygiene and following strict asepsis during invasive techniques are simple measures and does not involve any extra cost, but only requires behavioural change among the health care workers.⁶ To conclude, it is the responsibility of all health care providers to enact the principles of proper care in order to prevent health care-associated infections.

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