Preventing hospital infections
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The doctor’s visit at the hospital. Constant surveillance is needed to prevent "nosocomial infections" from spreading among patients, visitors, and health staff. Photo: Keystone ©.

The danger of HIV transmission led to precautions based on the principle that every individual is potentially infectious.

A n epidemic is an occurrence of disease that clearly exceeds normal or expected frequency in a community or region. One of the first recorded epidemics in the western world was that of bubonic plague during the Middle Ages, while other major epidemics have included cholera, smallpox and influenza. Sometimes an epidemic wanes and reappears; although bubonic plague had declined by the 1800s, Hong Kong experienced an epidemic of the plague late in that century. By that time, however, it was possible to identify the causes of many infections so that steps could be taken to protect the health of communities.

Today, infectious diseases present new challenges and new potential for epidemics. Globalization, the resurgence of long-standing infectious diseases and the emergence of new diseases have forced health care workers to re-examine strategies to protect health.

Relaxed vigilance

Hospitals have long been recognized as environments in which the utmost care is needed to prevent the transmission of infections. However, widespread use of sulfonamides and antibiotics since the early 1940s, and reliance on these drugs to prevent and control infections, may have contributed to the development of both drug resistance and lack of vigilance. Moreover, the increased use of invasive approaches to diagnosis and treatment in the high technology environments of modern hospitals has made patients more vulnerable to infection. Many hospitals today have therefore had to reconsider ways of preventing hospital infections – they are known as "nosocomial infections" – and stopping transmission from patient to patient, patient to health care worker, and health care worker to patient.

The emergence of HIV in particular forced a re-examination of infection control practices in hospitals. Although hepatitis B had been recognized as a highly infectious bloodborne pathogen, it was the advent of HIV that led to precautions based on the principle that every individual is potentially infectious. This contrasts sharply with the previous approach, which depended on the patient’s symptoms or a confirmed diagnosis. The emergence of HIV and the re-emergence of tuberculosis have made it more necessary than ever for health care workers to be knowledgeable, vigilant and consistent in applying infection control procedures. To the extent possible, they have to ensure the complete absence of all causes of infection.

Health care workers and communities have the responsibility of protecting the health of the public. In many countries, hospitals now maintain continuous surveillance to reduce their nosocomial infection rates. Guidelines and resources are needed for carrying out infection control measures. The importance of multidisciplinary education and training in infection control for all hospital staff cannot be overemphasized.

Health care workers need to help people not only in hospitals and clinics, but also in schools, homes and workplaces, to learn and use basic techniques for preventing infection in everyday life. Fundamental practices that protect health, such as hand-washing, covering the mouth when coughing, the safe preparation and storage of food, and safe sex, are essential elements of health education programmes for all.

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