

## Questionnaires for healthcare-associated Infections (Physicians & Nurses)

**Healthcare-associated infections (HCAs)** are infections acquired during the course of receiving treatment for other conditions within a healthcare facility.

**Note:** **SC**, single-choice; **MC**, multiple-choice; **PO**, Physicians only; **NO**, Nurses only.

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### -----KNOWLEDGE SECTION-----

1. Are you aware of HCAs in your hospital? YES , NO
  
2. Which of the following HCAs are commonly seen in your hospital? **MC**
  - A. Urinary tract infections (UTI)
  - B. Surgical wound infections
  - C. Respiratory tract infections (RTI)
  - D. Bloodstream infections (i.e., bacteremia and/or septicemia)
  - E. Gastrointestinal tract infections (GITI)
  - F. Skin infections
  - G. Others; please specify:
  
3. Which infectious agents are commonly implicated in HCAs? **MC**
  - A. Methicillin-resistant *Staphylococcus aureus* (MRSA)
  - B. Vancomycin-resistant enterococcus (VRE)
  - C. *Pseudomonas aeruginosa*
  - D. *Klebsiella pneumoniae*
  - E. *Mycoplasma pneumoniae*
  - F. *Streptococcus pneumoniae*
  - G. *Mycobacterium tuberculosis*
  - H. *Escherichia coli*
  - I. *Clostridium difficile*
  - J. *Bordetella pertussis*
  - K. *Acinetobacter baumannii*
  - L. *Stenotrophomonas maltophilia*
  - M. *Haemophilus influenzae*
  - N. *Candida albicans*
  - O. Rotavirus
  - P. Norovirus (Norwalk virus)
  - Q. Influenza virus
  - R. Hepatitis A virus (HAV)
  - S. Respiratory syncytial virus (RSV)
  - T. Not identified
  
4. Can you name at least 5 pathogens most commonly isolated in your hospital? **PO**

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5. Which population is the most susceptible to HCAs? **SC**
  - A. Inpatients
  - B. Outpatients
  - C. Doctors (including medical students and interns)
  - D. Nurses
  - E. Janitors
  - F. Visitors/care givers

- G. Cleaner
- H. Animal (rat)

6. Which is the most important source/reservoir of HCAIs? **SC**

- A. Inpatients
- B. Outpatients
- C. Doctors (including medical students and interns)
- D. Nurses
- E. Caregivers or Attendants
- F. Visitors
- G. Cleaners
- H. Animals such as rats

7. Which of the following behavior(s) can spread infectious organisms? **MC**

- A. Coughing
- B. Spitting
- C. Talking
- D. Laughing
- E. Sneezing
- F. Hand shaking
- G. Hugging
- H. Kissing
- I. Sharing a drinking straw
- J. Reusing non-disposable chopsticks

8. To prevent HCAIs, you should report to your health department when you have contracted: **MC**

- A. Hepatitis B (HBsAg +)
- B. Hepatitis A
- C. HIV
- D. Herpes zoster (shingles)
- E. Influenza
- F. Food poisoning
- G. Acute viral (hemorrhagic) conjunctivitis
- H. Malaria

9. When a patient with pulmonary tuberculosis can be removed from the isolation room? **SC**

- A. After patient's signs and symptoms have disappeared
- B. When chest X-rays become negative
- C. After 3 consecutive negative sputum smear
- D. After 3 consecutive negative sputum culture

10. Which is the single most effective method to prevent HCAIs? **SC**

- A. Hand washing properly
- B. Wearing caps, masks, and shoe covers
- C. Regular vaccination of healthcare workers
- D. Isolation (cohorting) of infected/colonized patients
- E. Cohorting staff (assignment of staff to a cohort of patients)
- F. Prudent use of antibiotics
- G. Educating healthcare workers, patients, and families
- H. Visitor management

11. Which is the preferred hand washing method to prevent transmission of *Clostridium difficile*-associated infections? **SC**

- A. Alcohol hand rub
- B. Water and soap
- C. Iodine solution

12. Which of the following(s) can effectively prevent spreading or protect you from influenza (flu) during the flu season? **MC**

- A. Frequent hand washing and avoidance of touching mouth and nose
- B. Wearing a mask when you have a flu
- C. Covering mouth and nose when sneezing or coughing
- D. Staying home and sleeping well
- E. Receiving Tamiflu (Oseltamivir) or Relenza (Zanamivir) before catching a flu
- F. Receiving Tamiflu (Oseltamivir) or Relenza (Zanamivir) within 36 h of the onset of flu symptoms

13. Which of the followings are the recognized sources of HCAIs? **MC**

- A. White coat
- B. Nurse uniform
- C. Stethoscope
- D. Thermometer
- E. Wrist watch (used for patient care)
- F. Blood pressure cuff (sphygmomanometer)
- G. Mattresses and pillows
- H. Bedside curtains
- I. Chairs/stools/cabinets
- J. Air conditioners

14. With regard to HCAIs, visitors may have negative impacts on patients (and community) by: **SC**

- A. Disturbing patient's rest
- B. Transmitting infectious agents between patients
- C. Serving as a carrier of multidrug-resistant pathogens from/to community
- D. Disturbing effective infection control measures
- E. Smoking within the patients' room

15. With regard to visitor management in hospital settings, which of the following is/are correct? **MC**

- A. Visitors should be allowed to stay with patients at any time except during clinical rounds
- B. Children visitors should not be allowed to visit patients at all
- C. Children visitors should be allowed to visit only their own siblings
- D. Visitor screening (for potential infectious diseases) should be observed all time
- E. Visitor screening should be observed only during community outbreaks
- F. Symptomatic visitors should be excluded unless they have received appropriate medical screening, diagnosis, or treatment

16. Which of the following is/are closely associated with the emergence of multidrug resistant organisms (MDROs)? **MC**

- A. Poor infection control guidelines
- B. Poor adherence to recommended infection control practices of healthcare workers
- C. Poor prescribing behavior of doctors
- D. Poor patient compliance
- E. Antibiotic abuse or overuse
- F. Antibiotic cycling practice

17. Do you consider all patients potentially contagious? YES , NO

18. Which of the followings from patients do you assume to be infectious? **MC**

- A. Blood
- B. Nasal discharge
- C. Saliva
- D. Vomitus
- E. Feces
- F. Urine
- G. Sweat
- H. Vaginal secretion
- I. Non-intact skin (cut, abrasion, eczema)
- J. Mucous membranes (oral cavity, eyes)

19. Do you consider all unsterile needles and sharps are contaminated? YES , NO
20. Do you know about nosocomial infection monitoring program in your hospital? YES , NO
21. If YES, which personnel or environmental sources of infection should be included for microbial cultural analysis? **MC**
- A. Air
  - B. Water
  - C. Disinfectants and antiseptics
  - D. Inanimate healthcare objects
  - E. Environmental surfaces
  - F. Hands of healthcare workers
  - G. Anterior nares of healthcare workers
22. The proper minimum spacing between beds in multi-patient rooms should be: **MC**
- A. 0.6 meter (or 2 feet)
  - B. 1 meter (or 3 feet)
  - C. 1.5 meters (or 5 feet)
  - D. 0.6 meter with a curtain between beds (for infected/colonized patients)
  - E. 1 meter with a curtain between beds (for infected/colonized patients)
  - F. 1.5 meters with a curtain between beds (for infected/colonized patients)
23. Do you know how to wash your hands in the six-step hand washing technique? YES , NO
24. With regard to white coats, check the correct answers: **SC**
- A. White coat can prevent hospital-associated infections
  - B. Long-sleeve white coats are more preventative than short-sleeve white coats
  - C. A disposable gown should be donned over the white coat when performing invasive bedside procedures
  - D. It is not required to take off the white coat when going to the canteen inside the hospital

-----PRACTICE SECTION-----

25. How do you usually wash your hands while ON DUTY? **MC**

- A. Wash with running water
- B. Wash with running water and bar soap
- C. Wash with running water and hand-washing liquid
- D. Wash with running water and skin disinfectant
- E. Wash with alcohol hand rub

26. When do you wash your hands? **MC**

- A. Before meals
- B. Before performing invasive bedside procedures
- C. Before and after examining patients
- D. Before and after touching wounds, but not when gloved
- E. Between two different procedures on different patients
- F. Between two different procedures on the same patient
- G. After using the patient-care devices
- H. After using the computer and desk in the ward
- I. On joining and completion of duty
- J. After taking off gloves

27. When do you wear medical utility (non-sterile) gloves? **SC**

- A. Using the computer, desk, or patient-care equipment in the ward
- B. Prescribing drugs
- C. Performing physical examination on patients
- D. Making clinical rounds
- E. None of above

28. What type of personal protection equipment (PPE) would **YOU** wear? \*Check more than one if applicable.

Gown      Mask      Goggles      Face shield      Gloves      None

- A. Transporting coughing patients in/out of ward#
- B. Drawing blood from a patient
- C. Irrigating a septic wound
- D. Nasogastric suctioning
- E. Performing lumbar puncture
- F. Visiting the neonatal intensive care unit (NICU)
- G. Performing physical examination
- H. Attending patients with fecal incontinence
- I. Delivering a baby of an HIV-positive woman

29. How often do you clean your stethoscope with antiseptic (e.g., 70% alcohol)? **SC**

- A. After examining each patient
- B. Daily
- C. Weekly
- D. Monthly
- E. Never

30. How often do you wash your white coat or nurse uniform? **SC**

- A. Daily
- B. 3 times a week
- C. Twice a week

- D. Weekly
- E. Monthly
- F. Never

31. Have you ever been splashed by patient's blood, vomit, or other bodily fluids? YES , NO

32. Have you ever sustained a **used** needlestick injury? YES , NO

33. What action would you take immediately after exposure to HBV- or HIV-contaminated bodily fluid? **MC**

\_\_\_\_\_ followed by  
 wash liberally with \_\_\_\_\_  
 water soap scrubbing antiseptics

- A. Healthy intact skin
- B. Wound or non-intact skin (e.g., cut, abrasion, eczema)
- C. Mucous membranes (e.g., eyes)

34. What kind of patients would you mask during transfer/transport out of room for investigations? **MC**

- A. Patients suffering from influenza
- B. Coughing patients with suspected pulmonary tuberculosis
- C. Patients receiving radiation therapy for colon cancer
- D. All patients regardless of their illness

35. Where should infectious waste from patients be disposed of? **SC**

- A. Yellow garbage bag
- B. Black garbage bag
- C. Red garbage bag
- D. No idea

36. Have you ever treated cases of multidrug resistant (MDRO) infection? **PO** YES , NO

37. Your prescribing practice is based on: **SC & PO**

- A. your own experience
- B. the practice of your seniors
- C. the hospital/national guidelines
- D. the information provided with the drug box
- E. Chinese pharmacopoeia

38. What is your selection criterion (the order of importance) when prescribing antibiotics? **PO**

- A. Antimicrobial spectrum
- B. Cost
- C. Brand
- D. Generation

# Order of importance: 1) \_\_\_\_\_ 2) \_\_\_\_\_ 3) \_\_\_\_\_ 4) \_\_\_\_\_

39. When do you prescribe/administer antibiotics to patients with an apparent infection? **SC & PO**

- A. As soon as patients are admitted to the ward
- B. After receiving microbiological culture and sensitivity (C & S) results
- C. After taking clinical samples for microbiological examination
- D. Before taking clinical samples for microbiological examination
- E. Before taking clinical samples for microbiological examination but make changes after the C&S results
- F. After taking clinical samples for microbiological examination and make changes after the C&S results

40. Your decision to switch antibiotics in the course of anti-infection therapy is based on: **MC & PO**

- A. Unabated fever
- B. Clinical response
- C. Culture and sensitivity (C&S) report

- D. Patient's affordability
- E. Other reasons; please specify:

41. Do you think your hospital has good infection control management and practice? YES , NO

42. If NO, what and how should be improved? Please feel free to write your suggestion. **PO**

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