

Supplementary File 1

Test for Correct Use of Prevention and Control Supplies during COVID-19 Outbreak

Hospital _____ Professional role _____ Professional title _____

Gender _____ Age _____

Part I. Choice questions (1-8 single, 9-10 multiple)

1. Which of the following operations required Level 3 protection when performed for children with suspected COVID-19?
 - A. Intravenous injection
 - B. Temperature measurement
 - C. Nasopharyngeal swab
 - D. Physical examination
2. Which of the following is **not** the established mode of transmission of SARS-Cov-2?
 - A. Droplet transmission
 - B. Contact transmission
 - C. Aerosol transmission
 - D. Fecal-oral transmission
3. About setting requirements for isolation ward, which of the following is **wrong**?
 - A. The clean area, semi-polluted area and polluted area should be marked by red, yellow and green respectively.
 - B. Space or physical separation should be provided from other medical areas.
 - C. Set up clean channel, semi-polluted channel, and polluted area channel.
 - D. No crossing shall be allowed among the three zones (clean zone, semi-polluted zone, polluted zone) and the three channels (clean channel, semi-polluted channel, polluted channel).
4. Which level of protection should be given to medical technicians in the CT room when perform CT examination for children with suspected COVID-19?
 - A. Basic protection (work clothes, ordinary surgical mask)
 - B. Level 1 protection (work clothes, surgical mask, disposable hat, disposable gloves, goggles, isolation clothing)
 - C. Level 2 protection (work clothes, medical protective masks, disposable hats, disposable gloves, goggles, medical protective clothing, shoe covers)
 - D. Level 3 protection (work clothes, medical protective masks, disposable hats, disposable gloves, fully protective respiratory masks, medical protective clothing, shoe covers)
5. Which of the following moments requires hand hygiene?
 - A. Before and after patient contact
 - B. Before aseptic technique
 - C. After body fluid exposure risk
 - D. After contact with patient surroundings
 - E. All of the above are true

6. The recommended level of personal protection for health care personnel engaged in general clinical practice in contaminated areas of fever outpatients is
 - A. Level 1 protection (+2) (work clothes, surgical mask, hat, gloves, medical isolation clothing)
 - B. Level 2 protection (work clothes, medical mask, hat, gloves, medical protective clothing, shoe covers, goggles/mask)
 - C. Level 3 protection (work clothes, medical protective masks, hats, gloves, medical protective clothing, shoe covers, fully protective respirator/fully protective electric air supply filter respirator)
 - D. Level 1 protection (+1) (work clothes, surgical mask, hat, gloves)
7. The level of personal protection recommended by medical personnel for outpatient and emergency operations (endotracheal intubation, bronchoscopy, etc.) in general diagnosis and treatment areas is
 - A. Level 1 protection (+4) or (+3) (work clothes, surgical mask/surgical mask, cap, gloves, medical isolation clothing, goggles/mask)
 - B. Level 1 protection (1) or (+1) (work clothes, surgical mask, hat, gloves)
 - C. Level 1 protection (1) (work clothes, surgical mask, cap)
 - D. Basic protection (work clothes, ordinary surgical mask)
8. The first step to unclogging isolation gown is
 - A. Unfasten the belt of the isolation garment, tie a slipknot in the front
 - B. Take off the gloves
 - C. Wear gloves
 - D. Unlock the collar
9. Which of the following is true:
 - A. Remove protective equipment gently to avoid aerosol exposure.
 - B. When taking off, pay attention to the skin not to touch the contaminated surface to prevent skin exposure.
 - C. Hand hygiene should be carried out at every step of taking off the protective equipment. Wash hands again after removing all protective equipment.
 - D. Taking off the protective clothing area from high pollution level to low level, do not reverse.
 - E. Disposable items should be placed in yellow clinical waste collection bags for centralized disposal.
10. Which of the following are aerosol-prone or high-risk operations?
 - A. Endotracheal intubation
 - B. Eye examination
 - C. Gastroscopy/colonoscopy and sampling
 - D. Surgery/debridement
 - E. Medical waste disposal

Part II. True or false questions

1. Wearing disposable latex gloves when operating can replace hand hygiene for medical staff.
2. The confirmed case of COVID-19 must have a normal body temperature for 3 consecutive days, significantly improved respiratory symptoms, lung imaging evidence of significant absorption of pneumonia, and twice consecutive negative nasopharyngeal swab nucleic acid tests (24 hours between the two tests) before the isolation can be lifted.
3. Negative pressure in the negative-pressure-ward in use should be recorded daily.
4. After each wearing of the goggles, it is necessary to use the hydrogen peroxide disinfectant to spray for disinfection comprehensive for 1 minute, then wipe the disinfectant thoroughly and dry them for later use.
5. Level 3 protection is required for handling respiratory specimens of children with suspected or confirmed COVID-19.
6. Confirmed cases of COVID-19 should be isolated in a single room.
7. All specimens of suspected and confirmed cases of COVID-19 should be placed in special biosafety transfer boxes for tr

ansportation.

8. When wearing protective clothing, the inner gloves are worn outside the cuffs of the protective clothing.
9. When removing a medical protective mask, first pull down the rubber band above and then pull down the rubber band below.
10. When wearing a medical protective mask, air leakage tests must be performed to ensure that the mask is properly worn.
11. When wearing a surgical mask, turn the protective surface (blue) of the mask outwards, with the metallic side facing upward. The mask should completely cover the mouth, nose and chin. Using two index fingers to press the metal plate along the bridge of the nose to make the mask close to the face.
12. After removing the mask and protective clothing, it is necessary to immediately disinfect the hands wearing gloves.
13. When wearing a disposable medical hat, move the elastic side forward, taking care to arrange the hair into the hat.
14. When removing a surgical mask, fold the outer side of the mask outwards, wrap it around and discard it.
15. The disinfection for general outpatient and emergency, indoor floor in wards (excluding neonatal department, NICU, PICU, CCU, hematology department, hemodialysis room and other departments with high risk of infection) should use 1000mg/L chlorine-containing preparations swabbing > 10 minutes, at least once/day, cleaning and disinfection at any time in case of contamination.

Supplementary File 2

Comparison of characteristics between respondents and non-respondents

Variables	Respondents	Non-respondents	Total	P value
Number of participants	1062	38	1100	
Type of hospital, n(%)				0.220
Peripheral hospital	592(55.7)	25(65.8)	617(56..1)	
Tertiary hospital	470(44.3)	13(34.2)	483(43.9)	
Professionals, n (%)				0.109
Pediatrician	385(36.3)	20(52.6)	405(36.8)	
Nurse	410(38.6)	12(31.6)	422(38.4)	
Administrator	267(25.1)	6(15.8)	273(24.8)	