

CLINQUIZ

COVID-19

Ishrat Yousuf¹, Pranav Bansal², Shivani Sharma³

1-Resident, 2-Professor & Head; Department of Anesthesiology & Critical Care, BPS Govt Medical College, Khanpur Kalan, Sonapat, Haryana, India.

3-Professor, Dept. of Physiology, Medical University of the Americas, Saint James Windward Parish, St. Kitts & Nevis.

Novel corona virus disease, designated by WHO as COVID-19, took the world by storm. The brunt of the disease has to be borne by the respiratory system, although like any systemic disease, it affects almost every body organ system. The disease left us for too long a time wondering about its pathogenesis, and the best strategy to manage it regarding physical support as well as the pharmacotherapeutics. A series of guidelines and protocols have emerged and the most part is left to the treating physicians. This Cliniquiz has an tempt to bring the focus of the readers to some of the important facts (*Please choose one best option*);

Q 1. The ABCDE protocol in prevention of complications in mechanically ventilated patients with COVID-19 stands for:-

- (A) Awakening and Breathing, Coordination, Delirium assessment management and Early mobility
- (B) Airway, Breathing, Circulation, Disability, Exposure
- (C) Airway, Blood Pressure, Cognitive Dysfunction, Disability, Exposure
- (D) Awakening and Breathing Coordination, Disability, Early extubation

Q 2. It is true regarding patients having COVID-19 with co-infection that:-

- (A) Empirical antibiotic therapy to be started in every suspected or confirmed mild COVID-19 case
- (B) Empirical antibiotic therapy to be started in every suspected or confirmed moderate COVID-19 case
- (C) Empirical antibiotic therapy to be started in every suspected or confirmed severe COVID-19 case
- (D) All of the above

Q 3. All of the following regarding mothers with COVID-19 infection are true except: -

- (A) Early and uninterrupted skin-to-skin contact between mothers and infants should be

facilitated and encouraged as soon as possible after birth

- (B) Kangaroo mother care and rooming is not to be practiced throughout day and night
- (C) Early establishment and continuation of breastfeeding
- (D) Perform frequent hand hygiene with soap and water or alcohol-based hand rub, especially before contact with her child

Q 4. A severe case of COVID-19 has all of the following except:

- (A) Dyspnea, respiratory frequency < 20/min
- (B) Blood oxygen saturation (SpO₂) ≤ 90% on room air
- (C) PaO₂/FiO₂ ratio or P/F ratio < 300
- (D) Lung infiltrates > 50% within 24 - 48 h

Q 5. Which of the following immuno-modulator is recommended for management in a moderate to severe case of COVID-19?

- (A) Remdesivir
- (B) Tocilizumab
- (C) Umifenovir
- (D) Ritonavir

Q 6. Tocilizumab (Recombinant Humanoid monoclonal antibody) is an:-

- (A) IL-2 inhibitor

- (B) IL-4 inhibitor
- (C) IL-6 inhibitor
- (D) IL-8 inhibitor

Q 7. Contraindications for the use of Remdesivir include all of the following, except:

- (A) Severe renal impairment (GFR < 30 ml/min/m²)
- (B) Pregnancy and lactating mothers
- (C) Children < 12 y of age
- (D) AST/ALT < 3 times the upper limit of normal

Q 8. The criteria for SIRS includes all of the following, except:

- (A) Temperature (> 38.5 °C or < 36 °C)
- (B) Tachycardia for age or bradycardia for age if < 1 y

- (C) Tachypnea for age or need for mechanical ventilation
- (D) Normal white blood cell count for age or <10% bands

Q 9. Which of the following is the least aerosol generating procedure in a COVID care unit?

- (A) Tracheal intubation
- (B) Bronchoscopy
- (C) Defibrillation
- (D) Suctioning

Q 10. While performing CPR in prone position, the most favorable position for application of gel pads is:

- (A) Antero-apical area
- (B) Bilateral axillary areas
- (C) Interscapular and axillary areas
- (D) Contralateral suprascapular and axillary areas

Explanations

A 1. (A) Awakening and Breathing Coordination, Delirium assessment and management, Early mobility (ABCDE). Implementation of following as a bundle of care helps to reduce anticipated complications including delirium in mechanically ventilated COVID-19 patients:

- Weaning protocols that include daily assessment for readiness to breathe spontaneously
- Minimize continuous or intermittent sedation, targeting specific titration endpoints or with daily interruption of continuous sedative infusions
- Early mobilization

A 2. (C) Recommendations for the use of antibiotic therapy for COVID-19 patients include:

- Patients with suspected or confirmed mild COVID-19, should not be prescribed antibiotic therapy or prophylaxis
- In suspected or confirmed moderate COVID-19, antibiotics should not be

prescribed unless there is clinical suspicion of a bacterial infection

- In suspected or confirmed severe COVID-19, the use of empiric antimicrobials to treat all likely pathogens, based on clinical judgment, patient host factors and local epidemiology, and this should be done as soon as possible (within 1 hour of initial assessment if possible), ideally with blood cultures obtained first. Antimicrobial therapy should be assessed daily for de-escalation.

A 3. (B) Mother and infant should be enabled to remain together while rooming-in throughout the day and night and practice skin-to-skin contact, including kangaroo mother care, especially immediately after birth and during establishment of breastfeeding, whether they or their infants have suspected or confirmed COVID-19 virus infection. Neonates born to mothers with suspected or confirmed COVID-19 should be breastfed within 1 hour of birth. Perform frequent hand hygiene with soap and water or alcohol-based hand rub, especially before contact with her child. Perform respiratory hygiene: sneeze or cough into a tissue and immediately dispose of the tissue.

A 4. (A) A severe COVID-19 case includes symptoms of dyspnea, respiratory frequency $>30/\text{min}$, blood oxygen saturation (SpO_2) $\leq 90\%$ on room air, $\text{PaO}_2/\text{FiO}_2$ ratio or P/F ratio < 300 , lung infiltrates $> 50\%$ within 24 to 48 hours.

A 5. (B) Tocilizumab

A 6. (C) Tocilizumab is a recombinant humanoid monoclonal antibody against IL-6 receptors.

A 7. (D) Contraindications to the use of Remdesivir include severe renal impairment (GFR $<30\text{ml}/\text{min}/\text{m}^2$), Pregnancy and lactating mothers, Children < 12 years of age, AST/ALT >5 times the upper limit of normal.

A 8. (D) SIRS criteria includes temperature (> 38.5 °C or < 36 °C); tachycardia for age or bradycardia for age if < 1 year; tachypnea for age or need for mechanical ventilation; abnormal white blood cell count for age or $> 10\%$ bands.

A 9. (C) Defibrillation is the least aerosol generating procedure in a Covid care unit.

A 10. (B) The best position for application of gel pads during resuscitation of patient in prone position is bilateral axillary areas (both armpits).