| Simulation         | Learning          | Description             | Physical Conditions   |
|--------------------|-------------------|-------------------------|---|
| Scenario           | Objectives        |                         |   |
| Care of patient on | 1. Assess the ETT | Positive COVID-19,      | • Continuous MV alarm   |
| mechanical         | cuff pressure.    | intubated and           | of high peak pressure   |
| ventilation        | 2. Practice       | connected to volume     | • BIS =90   |
|                    | tracheostomy      | control mode. Sedated   | • CPOT=3  |
|                    | and stoma care    | with fentanyl. P/F      | • BP=110/70 mm Hg   |
|                    | 3. Practice prone | ratio was 55.           | • Temperature=38.6 C  |
|                    | position          |                         | <ul> <li>RR=24/min</li> <li>HR=120/min</li> <li>O2Sat=94%</li> <li>FiO2 =80%</li> </ul> |
|                    | technique         | Prone position          |   |
|                    | 4. Trouble shoot  | ventilation tried once, |   |
|                    | the ventilator    | and saturation          |   |
|                    | alarms            | improved slightly.      |   |
|                    | 5. Change the ETT |                         | • ABGs  |
|                    | placement         | After few days, it has  | (PH=7.2, Paco2:60,  |
|                    | 6. Practice ETT   | been decided to insert  | Pao2:60, Hco3:14)   |
|                    | suction           | tracheotomy tube with   |   |
|                    | 7. Practice TT    | mechanical ventilation  |   |
|                    | suction           | support                 |   |
|                    | 8. Apply DVT      |                         |   |
|                    | prevention        |                         |   |
|                    | device            |                         |   |

Simulated Patient Scenario Objectives and Descriptions

| Simulation           | Le | arning            | Description             | Physical Conditions |
|----------------------|----|-------------------|-------------------------|---------------------|
| Scenario             | Ot | ojectives         |                         |                     |
| ABCDE assessment     | 1. | Perform           | Positive COVID-19       | • P/F ratio of 200  |
| and oxygen therapy   |    | ABCDE             | on face mask with       | • ABGs              |
|                      |    | assessment and    | oxygen 6 L/min          | (PH=7.3, Paco2:66,  |
|                      |    | to manage         |                         | Pao2:70, Hco3:30)   |
|                      |    | accordingly       | After a few minutes,    | • Temperature=38C   |
|                      | 2. | Decide on the     | the simulated           | • BP=120/60 mm Hg   |
|                      |    | appropriate       | mannequin and           | • RR=26/min         |
|                      |    | oxygen therapy    | monitor showed short    | • HR=120/min        |
|                      |    | based on patient  | of breath with          | O2Sat=90%           |
|                      |    | condition         | O2Sat=87%               |                     |
| Care of patient with | 1. | Perform central   | Positive COVID-19,      | • BP=100/50 mm Hg   |
| invasive lines and   |    | line zeroing      | intubated with          | Temperature=38.0 C  |
| chest tube           | 2. | Perform arterial  | pressure control mode,  | • RR=16/min         |
|                      |    | line zeroing      | has central line and    | • HR=130/min        |
|                      | 3. | Perform central   | arterial line           | O2Sat=90%           |
|                      |    | line and arterial | monitoring. A chest     | • FiO2=60%          |
|                      |    | dressing care     | tube was inserted for   | • CVP=10            |
|                      | 4. | Perform chest     | hemopneumothorax as     |                     |
|                      |    | tube monitoring   | complication after      |                     |
|                      |    | and care          | central line insertion. |                     |
|                      |    |                   | On vasopressor          |                     |
|                      |    |                   | support                 |                     |

| Simulation           | Learning           | Description           | Physical Conditions |
|----------------------|--------------------|-----------------------|---------------------|
| Scenario             | Objectives         |                       |                     |
|                      |                    | (Norepinephrine 0.3   |                     |
|                      |                    | mic/kg/min).          |                     |
|                      |                    |                       |                     |
| Oral, eye, NGT,      | 1. Perform oral    | Positive COVID-19,    | • BP=110/70 mm Hg   |
| and urinary catheter | care               | intubated on CPAP     | Temperature=37.8 C  |
| care                 | 2. Perform eye     | mode.                 | • RR=24/min         |
|                      | care               |                       | • HR=100/min        |
|                      | 3. Perform urinary | NGT was ordered for   | O2Sat=95%           |
|                      | catheter care      | continuous feeding.   | • FiO2=30%          |
|                      | 4. Perform NGT     | Eye, mouth, and       |                     |
|                      | insertion and      | urinary catheter care |                     |
|                      | care               | are required          |                     |

(BIS: Bi Spectral Index), (ABCDE: Airway, Breathing, Circulation, Disability, Exposure), (MV: Mechanical Ventilator), (CPAP: Continuous Positive Airway Pressure), (CPOT: Critical Care Pain Observation Tool), (Fio2: Fraction of inspired oxygen), (P/F ratio: Pao2:Fio2),(CVP: Central Venous Pressure).