

| Document Code: DPOTMH-E-69-P01-S09 | |
|------------------------------------|------------------------------------|
| Effective Date: | 03-31-2022 |
| Document Type: | Standard Operating Procedure |
| Page Number: | 1 of 4 |
| Department/Section: | Respiratory Therapy Services |
| Document Title: | WEANING FROM MECHANICAL VENTILATOR |

PURPOSE:

- To discuss the proper assessment of patient's fitness for liberation from ventilator support
- 2. To prepare the patient for safe extubation

SCOPE:

Applies to all Respiratory Therapy Services staff of Dr. Pablo O. Torre Memorial Hospital

PERSON RESPONSIBLE:

Respiratory Therapist, Physicians, Nurses

GENERAL GUIDELINES:

- 1. The procedure should be performed by a trained and experienced Respiratory Therapist.
- The universal precaution set by the Infection Prevention and Control Unit should be observed for proper handling of weaning accessories and proper disposal of contaminated tubing.
- 3. The protocol calls for all team members to wear gloves, face mask and gowns for safety precautions.
- 4. Handwashing before and after weaning of patient is observed at all times.
- 5. Routine checks should be done every 4 hours on the following:
 - 5.1. correct settings as ordered
 - 5.2. tubing (disconnections, excess moisture)
 - 5.3. oxygen supply (need for change of tanks)
 - 5.4. water level in case of macronebulizers and sterile humidifiers.
- 6. Charges should be encoded for all the supplies being used for the procedure.



| Document Code: DPOTMH-E-69-P01-S09 | |
|------------------------------------|--|
| 03-31-2022 | |
| Standard Operating Procedure | |
| 2 of 4 | |
| Respiratory Therapy Services | |
| WEANING FROM MECHANICAL VENTILATOR | |
| | |

PROCEDURE:

- 1. Check the physician's order.
- 2. Review the patient chart for the ordered settings:
 - 2.1. Method of weaning (SIMV or T-Piece)
 - 2.2. FiO2 (Fraction of Inspired oxygen)
 - 2.3. Intervals of time duration between ventilator and weaning period.
- 3. Prior to weaning, correlate with the attending Nurse and check the patient's condition and medications.
- 4. Check for Vital signs. The patient should be stable before beginning trial. Respiratory rate, Oxygen Saturation, heart rate and blood pressure should be within normal range. If there are any concerns about this, the physician should be called.
- 5. Set-up of the weaning equipments:
 - 5.1. On SIMV Mode:
 - a) Check the H-valve with tubing connected to the oxygen prior to weaning for any leaks or disconnection.
 - b) Attach the H-valve to the water cascade, one end is connected to the ventilator circuit via inspiratory flow and the O2 tubing is connected to the oxygen source with humidifier.
 - c) Adjust the liter flow on the gauge for a required oxygen supplement.
 - d) Attach to the patient's endotracheal tube or tracheostomy. While on weaning observe for the patient's reaction towards the liberation from a mechanical ventilator.
 - 5.2. On T piece:
 - a) Gather all the necessary equipments such as t-piece, disposable macronebulizer, aerosol hose, dead space (Vd), and sterile water for humidification.
 - b) Check the equipments for any defects such as holes or deformities. Also check for the parts if it's complete.
 - c) Assemble the equipments and fill the macronebulizer to "fill" mark with sterile water.



| Document Code: DPOTMH-E-69-P01-S09 | |
|------------------------------------|------------------------------------|
| Effective Date: | 03-31-2022 |
| Document Type: | Standard Operating Procedure |
| Page Number: | 3 of 4 |
| Department/Section: | Respiratory Therapy Services |
| Document Title: | WEANING FROM MECHANICAL VENTILATOR |

- d) Attach the end of macronebulizer to the oxygen tank. Make sure to secure its screw tightly to the O2 gauge to avoid leak.
- e) Test for the humidification of the macronebulizer. It should produce mist.
- f) Adjust the knob indicating specific FiO2 delivery to the patient as ordered by the physician and the liter flow on the gauge for a required oxygen supplement.
- g) Attach to the patient's endotracheal tube or tracheostomy.
- h) While on weaning observe for the patient's reaction towards the liberation from a mechanical ventilator.
- 6. Return the patient to initial settings and document or call the physician if necessary if any time during the trial any of the following occur:
 - 6.1. Changes in HR > 20 BPM,
 - 6.2. Change in BP > 20 mmHg,
 - 6.3. Unacceptable SpO2,
 - 6.4. Elevated RR beyond normal limits,
- 7. Documentation should be written in RTS Endorsement Form at least once per shift and on the RTS Treatment Form for other remarks.

REFERENCE:

- 1. Esteban A, Anzueto A, Frutos F, et al. Characteristics and outcomes in adult patients receiving mechanical ventilation: a 28-day international study. JAMA 2002;287:345.
- Coplin WM, Pierson DJ, Cooley KD, et al. Implications of extubation delay in brain-injured patients meeting standard weaning criteria. Am J Respir Crit Care Med 2000; 161:1530.
- 3. Epstein SK, Ciubotaru RL, Wong JB. Effect of failedd extubation on the outcome of mechanical ventilation, Chest 1997; 112;186.



| Document Code: | DPOTMH-E-69-P01-S09 | |
|---------------------|------------------------------------|--|
| Effective Date: | 03-31-2022 | |
| Document Type: | Standard Operating Procedure | |
| Page Number: | 4 of 4 | |
| Department/Section: | Respiratory Therapy Services | |
| Document Title: | WEANING FROM MECHANICAL VENTILATOR | |

APPROVAL:

| | Name/Title | Signature | Date |
|--------------|---|-----------|-------------|
| Prepared by: | SHIRLEY B. MALAGA, RMT, RTRP RTS Supervisor | 1-7 | 3.7. 2022 |
| Reviewed: | DENNIS C. ESCALONA, MN, FPCHA, FPSQua Quality Assurance Supervisor | 8 | 3-7-2022 |
| Recommending | ROSARIO D. ABARING, RN, MN, PhD, FPCHA Ancillary Services Division Officer | Belaung & | A. 3-7.202. |
| Approval: | HENRY F. ALAVAREN, MD, FPSMID, FPSQua Total Quality Division Officer | X-rufer | 3/7/2020 |
| Approved: | GENESIS GOLDI D. GOLINGAN President and CEO | ** | 3/17/22 |



| Document Code: | Code: DPOTMH-E-69-P01-WI09 | |
|---------------------|------------------------------------|--|
| Effective Date: | 07-15-2022 | |
| Document Type: | Work Instruction | |
| Page Number: | 1 of 2 | |
| Department/Section: | Respiratory Therapy Services | |
| Document Title: | WEANING FROM MECHANICAL VENTILATOR | |

| | KEY TASKS | PERSON RESPONSIBLE |
|----|--|--------------------|
| 1. | Checks the physician's order and functionality of the equipment prior to the procedure. | |
| 2. | Reviews the patient's chart for the ordered settings. | |
| 3. | Checks the patient's condition and medications prior to weaning. | |
| 4. | Assesses the patient prior to the procedure. | RTS Staff |
| 5. | Set-ups of the weaning equipments. | |
| 6. | Documents or calls the physician if necessary if any time during the trial there are changes to the status of the patient. | |
| 7. | Documents the procedure in the patient's chart. | |



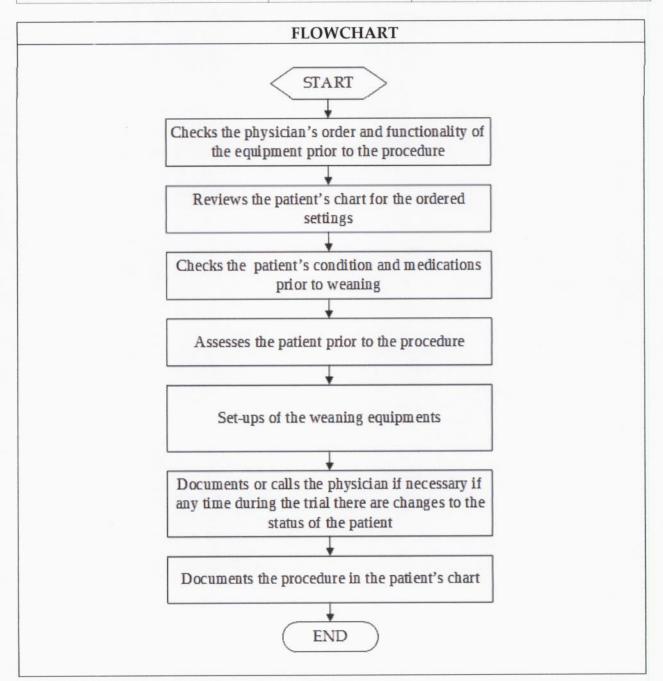
| Document Code: DPOTMH-E-69-P01-WI09 | |
|-------------------------------------|------------------------------------|
| Effective Date: | 07-15-2022 |
| Document Type: | Work Instruction |
| Page Number: 2 of 2 | |
| Department/Section: | Respiratory Therapy Services |
| Document Title: | WEANING FROM MECHANICAL VENTILATOR |

APPROVAL:

| | Name/Title | Signature | Date |
|--------------|---|-----------|------------|
| Prepared by: | SHIRLEY B. MALAGA, RMT, RTRP RTS Supervisor | 10 | 7.6.20 |
| Reviewed: | DENNIS C. ESCALONA, MN, FPCHA, FPSQua Quality Assurance Supervisor | 2 | 09-06-2012 |
| Recommending | ROSARIO D. ABARING, RN, MN, PhD, FPCHA Ancillary Services Division Officer | Plainet b | 07-06-2022 |
| Approval: | FREDERIC IVAN L. TING, MD OIC- Total Quality Division | # | 7/8/2 |
| Approved: | GENESIS GOLDI D. GOLINGAN President and CEO | | |



| Document Code: DPOTMH-E-69-P01-FC09 | |
|-------------------------------------|------------------------------------|
| Effective Date: | 07-15-2022 |
| Document Type: | Flowchart |
| Page Number: | 1 of 2 |
| Department/Section: | Respiratory Therapy Services |
| Document Title: | WEANING FROM MECHANICAL VENTILATOR |





| Document Code: | DPOTMH-E-69-P01-FC09 | |
|---------------------|------------------------------------|--|
| Effective Date: | 07-15-2022 | |
| Document Type: | Flowchart | |
| Page Number: | 2 of 2 | |
| Department/Section: | Respiratory Therapy Services | |
| Document Title: | WEANING FROM MECHANICAL VENTILATOR | |

APPROVAL:

| | Name/Title | Signature | Date |
|------------------------|--|-------------|------------|
| Prepared by: | SHIRLEY B. MALAGA, RMT, RTRP RTS Supervisor | 100 | 7.6.202 |
| Reviewed: | DENNIS C. ESCALONA, MN, FPCHA, FPSQua Quality Assurance Supervisor | 2 | 07-06-2022 |
| Recommending Approval: | ROSARIO D. ABARING, MAN, PhD Ancillary Division Officer FREDERIC IVAN L. TING, MD OLG Total Ovality Division | Maring b. I | 7/8/27 |
| Approved: | OIC-Total Quality Division GENESIS GOLDI D. GOLINGAN President and CEO | | |



| Document Code: | DPOTMH-E-69-P01-S11 |
|---------------------|------------------------------|
| Effective Date: | 03-31-2022 |
| Document Type: | Standard Operating Procedure |
| Page Number: | 1 of 4 |
| Department/Section: | Respiratory Therapy Services |
| Document Title: | VIBRACARE PERCUSSION THERAPY |

PURPOSE:

To discuss the steps in performing Vibracare Percussion Therapy. The procedure assist patients to mobilize and remove retained secretions, therefore, improving gas exchange and promote alveolar expansion and reduce work of breathing.

SCOPE:

Applies to all Respiratory Therapy Services staff of Dr. Pablo O. Torre Memorial Hospital

PERSON RESPONSIBLE:

Respiratory Therapists, Inhalation Therapists

GENERAL GUIDELINES:

- 1. The G5 Vibracare Percussor is designed as a mechanical adjunct for use in segmental bronchial drainage procedures indicated for individuals with:
 - 1.1. Increased production or increased viscosity of bronchial secretions.
 - 1.2. Impairment in the normal functional removal of bronchial secretions.
 - 1.3. Ineffective cough mechanism.
 - 1.4. Weakness of respiratory muscle function.
- The G5 Vibracare Percussor can be used as an alternative to manual percussion in acutely ill-patients with chest wall discomfort or injury. It delivers consistent rates, rhythms and impact forces, therefore the last patient of the day receives the same treatment as the first.
- 3. The use of Vibracare Percussor shall be done by a trained and experienced Respiratory Therapist/Inhalation Therapist.
- The policy on two-patient identifiers shall be practiced prior to any treatment or procedure.
- 5. Hand hygiene and adherence to patient safety goals shall be observed throughout the procedure.