

SCOPE OF PRACTICE FOR RESPIRATORY THERAPIST & RESPIRATORY TECHNICIAN

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1. Definitions and Abbreviations

| No. | Term / Abbreviation | Definition |
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| 1.1 | Arterial catheterization | A procedure that involves placement of a catheter into the lumen of an artery to provide at minimum a continuous displayed measurement of blood pressure with access to frequent arterial blood sampling. |
| 1.2 | Central vascular catheter | A thin, flexible hollow tube that is inserted into a large central vein in the neck, upper chest, or the groin. It is used to give intravenous fluids, blood transfusions, chemotherapy, and other drugs. |
| 1.3 | Extracorporeal Membrane Oxygenation (ECMO) | Extracorporeal membrane oxygenation (ECMO), also known as an “artificial lung” or extracorporeal life support (ELS), provides continuous extracorporeal respiration and circulation for patients with severe cardiopulmonary failure. ECMO is suitable for cardiorespiratory arrest, acute severe heart failure, and acute severe respiratory failure arising from various causes ²⁹ . |
| 1.4 | Invasive mechanical ventilation | A potentially lifesaving intervention for acutely ill patients providing ventilatory support via either an endotracheal tube (ETT) or tracheostomy. |
| 1.5 | Noninvasive ventilation (NIV) | The administration of ventilatory support via an interface such as a face mask without using an invasive artificial airway such as endotracheal tube or tracheostomy tube. |
| 1.6 | Respiratory Technician | A qualified trained healthcare professional who holds an associate degree or equivalent diploma qualification in respiratory therapy technology and has the skills and knowledge to perform diagnostic testing, collect samples, operate, and maintain respiratory equipment and ventilators under the supervision of a licensed respiratory therapist. |
| 1.7 | Respiratory Therapy | A healthcare specialty focused on enhancing the cardiopulmonary function of patients with deficiencies and abnormalities that affect the cardiopulmonary system and associated aspects of other system functions. It includes care management of the cardiopulmonary system, such as rehabilitation care, diagnostic evaluation, and therapy. Respiratory therapy is provided by a licensed qualified healthcare professional under the direction of a physician. |
| 1.8 | Respiratory Therapist | A qualified healthcare professional who holds an advanced academic degree or equivalent qualification in respiratory therapy and has the skills and knowledge to evaluate and treat patients with cardiopulmonary disorders under the supervision of a physician and educate patients under a variety of healthcare practice settings. |

2. SOP Purpose

The purpose of this document is to:

- 2.1 Define the clinical services provided by Respiratory Therapists and required competencies.
- 2.2 Define the clinical services provided by Respiratory Technicians and required competencies.
- 2.3 Set up the professional boundaries, accountabilities, ethical and legal obligations toward patients and the community.
- 2.4 Define the training requirements for respiratory therapists.
- 2.5 Serve as a reference to regulatory authorities, healthcare providers', and healthcare professionals.

3. SOP Scope

This scope of practice applies to DOH licensed Respiratory Therapists and Respiratory Technicians, and to all public and private healthcare providers licensed by DOH who wish to provide and operate respiratory therapy services in the emirates of Abu Dhabi.

4. Practice Settings

The function of respiratory therapy care must fall under medical services, examples, the pulmonary disease or critical care services. The respiratory therapy care is provided in various in-patient and out-patient service settings including:

- 4.1 Medical Centers
- 4.2 One Day Surgery Centers
- 4.3 Primary Health Care Centers
- 4.4 General Hospitals
- 4.5 Nursing Home - Hospitals
- 4.6 Rehabilitation Hospitals
- 4.7 Specialized Hospitals
- 4.8 Home care services – Medical Transport (Ambulance – Air Ambulance – Medical Transportation Unit)

5. Standard of Proficiency

5.1 The Respiratory Therapists and Respiratory Technicians must practice in accordance with the provisions of this standard, the Abu Dhabi and UAE federal laws as amended from time to time, ethical values, standards of professional conduct, and clinical practice protocols and guidelines published by national or international professional organizations. The following sections outline their professional obligations, duties and responsibilities towards self, employer and the society; however, it is not meant to be an all-exhaustive list:

- 5.1.1 Be responsible and accountable for judgments, actions, and outcomes.
- 5.1.2 Deliver quality respiratory care to patients based on their scope of work.
- 5.1.3 Be responsible toward the use of resources and sophisticated medical equipment.
- 5.1.4 Demonstrate professional behavior that reflects honesty, integrity.
- 5.1.5 Be sensitive to the individual and social needs of patients and strive to provide comfort and support.
- 5.1.6 Respect patients' rights and dignity including their right to privacy, protection of confidential information, patients' autonomy and right to consent and refuse treatment, in addition to protection of their personal property.
- 5.1.7 Accommodate the needs of the physically disabled.
- 5.1.8 Safeguard patients against misuse of power that leads to patient abuse including physical, or mental.
- 5.1.9 Adhere to sound evidence-based scientific procedures and ethical principles in work and research.
- 5.1.10 Maintain evidence of continued medical education and competencies.
- 5.1.11 Acknowledge their own limitation in knowledge and skills and practice within these limitations.
- 5.1.12 Demonstrate excellent teamwork skills and effective communication with other healthcare professionals.
- 5.1.13 Establish and maintain professional relationship based on trust, respect and empathy with patients and their families.
- 5.1.14 Communicate information to patients and their families that are clear and easy to understand.
- 5.1.15 Implement quality standards and patient safety goals and risk management strategies to ensure patient safety.
- 5.1.16 Adhere to infection control protocols, policies and procedures and reporting requirements.
- 5.1.17 Report any safety concerns to the appropriate authority channels and document findings and response.

5.2 Patient Care

5.2.1 Respiratory Therapist Scope in Patient Care: Respiratory Therapists work under the direction of physicians and treat a range of patients from premature infants and neonates to elderly patients suffering from various cardiopulmonary diseases.

.(a) Diagnostic Tests and Data Collection

- .(a).1 Pulmonary Function Testing and hemodynamic & other related physiological monitoring of cardiopulmonary systems.
- .(a).2 Measurement of ventilatory volumes, pressures, and flows.

- .(a).3 Invasive and non-invasive diagnostic procedures within their scope of practice.
- .(a).4 Arterial & Capillary blood gas sampling and analysis.
- .(a).5 Perform sleep disorders testing which require specific training and competency.

- .(b) Patient assessment**
 - .(b).1 Physical examination.
 - .(b).2 Interpretation of diagnostic data.
 - .(b).3 Patient observation including signs, reactions, and general behavior and response to respiratory care.
 - .(b).4 Provide pulmonary and cardiac exercise therapy.
 - .(b).5 Provide patient education and monitor their compliance as it is a key to improve patient outcomes.

- .(c) Therapeutic Application:**
 - .(c).1 Medical gas therapy, humidity therapy, and aerosol therapy.
 - .(c).2 Administration of drugs and medications through inhalation route, and only per physician order.
 - .(c).3 Airway clearance and chest physiotherapy through bronchial hygiene therapy, manual physiotherapy, vibratory positive expiratory pressures (Acapella Flutter), and High Frequent Chest Wall Oscillation (Vest).
 - .(c).4 Management of artificial airway including insertion and care.
 - .(c).5 Management of Invasive and Non-invasive Mechanical Ventilation, including ventilatory assistance and ventilatory control (refer to section 6 - Specific Learning Requirement).
 - .(c).6 Management of vascular catheter including insertion and care (refer to section 6 - Specific Learning Requirement).
 - .(c).7 Assist in the Insertion of nasogastric tubes, including tubes used for the purpose of sensing diaphragmatic movements.
 - .(c).8 Management of arterial lines including insertion and care (section 6 - Specific Learning Requirement).
 - .(c).9 Bronchoscopy assistance and other diagnostic procedures requiring conscious sedation.
 - .(c).10 Management of the Extracorporeal Membrane Oxygenation (ECMO) technology which require specific training and competency (section 6 - Specific Learning Requirement).
 - .(c).11 Tobacco control and cessation (section 6 - Specific Learning Requirement).
 - .(c).12 Participating in the treatment and management of Asthma (refer to section 6 Specific Learning Requirement).

- .(d) Acute and chronic diseases management:**
 - .(d).1 Initiation of acute and chronic care disease protocols.
 - .(d).2 Participate in the care management plans for patient pulmonary rehabilitation programs.

- .(e) Support of hemodynamics:**
 - .(e).1 The respiratory therapist practices include hemodynamic monitoring and reporting to physician.

- .(f) Provision of care in emergency, critical and post-critical care, and transportation including:**
 - .(f).1 Be an active member in stroke and trauma response teams.
 - .(f).2 Assist in emergency interventions including Cardiopulmonary Resuscitation.
 - .(f).3 Assist in therapeutic interventions during emergency situations (For Example: Bronchoscopy and Insertion of Intravenous and Intraosseous catheters).
 - .(f).4 Support in patient land and air transport for patients with mechanical ventilation
 - .(f).5 In facilities for long-term care and rehabilitation of critically ill adult and pediatric patients.

- .(g) The respiratory therapist role in pulmonary rehabilitation:**
 - .(g).1 Respiratory Therapist is an effective member in a Multi-Disciplinary program targeting patients with Chronic Obstructive Pulmonary Disease (COPD). The program aims to enable these patients to achieve and maintain their maximum level of independence and function. The program typically includes the following therapy components: Comprehensive Assessments of Pulmonary Functional Capacity, Exercise Training, Inspiratory Muscle Training, Neuromuscular Electrical Stimulation, Oxygenation, Psychosocial and Nutritional Evaluation, Counselling, and Drug Use and Education.

.(h) The respiratory therapist role in home care services:

- .(h).1 Respiratory therapists provide respiratory care at the patient's personal residence upon the provision of a physician's written order. The services include:
 - .I Work with the care team to develop care plan to maximize patient respiratory care.
 - .II Patient assessment and monitoring on oxygen therapy support and on mechanical ventilation support.
 - .III Administer diagnostic and therapeutic modalities as prescribed.
 - .IV Promotes health and educate patient, family, and care givers to minimize the need for hospitalization.

.(i) The respiratory therapist practice includes provision of respiratory therapy in telemedicine through:

- .(i).1 Patient assessment and education.
- .(i).2 Diagnostic evaluation.
- .(i).3 Home ventilator management.
- .(i).4 Monitoring patient health and activities.
- .(i).5 Managing patients with chronic conditions.
- .(i).6 Pulmonary Disease prevention.
- .(i).7 Patient consultations.

.(j) Equipment and Material Management:

- .(j).1 Setting up relevant medical equipment including calibration and testing.
- .(j).2 Ensure that medical equipment have been maintained on a regular basis.
- .(j).3 Sterilize equipment and ensure the operation and application of therapy are sterile following universal precautions.
- .(j).4 In charge of ordering materials and supplies for respiratory care service.
- .(j).5 Report equipment failures

5.2.2 Respiratory Technician Scope in Patient Care: The respiratory technicians perform diagnostic testing for patients experiencing respiratory diseases such as Asthma, Chronic Obstructive Pulmonary Disease (COPD), and Pneumonia under the supervision of a Respiratory Therapist or Physician. Respiratory Technicians do not create treatment plans for patients.

.(a) Diagnostic Data Collection:

- .(a).1 Non-invasive Pulmonary Function Testing, and diagnostic procedures such as 6-Minute Walk Tests, Pulse Oximetry for ambulatory oxygen assessment etc.
- .(a).2 Blood Gas Analysis and other relevant Laboratory tests

.(b) Patient assessment:

- .(b).1 Physical examination
- .(b).2 Patient observation including signs, reactions and general behavior and response to respiratory care.
- .(b).3 Interpretation of diagnostic data under supervision of the respiratory therapist.

.(c) Therapeutic Application:

- .(c).1 Medical Gas Therapy, Humidity Therapy, and Aerosol Therapy.
- .(c).2 Bronchial Hygiene Therapy.
- .(c).3 Preparation of bronchoscopy equipment and consumables for procedure.

.(d) Acute and chronic diseases management:

- .(d).1 Supervised initiation of chronic and acute care disease protocols.
- .(d).2 Participate in the care management plans for patient rehabilitation programs under the supervision of Respiratory Therapist.

.(e) Support of hemodynamics:

- .(e).1 The Respiratory Technician practices include hemodynamic monitoring and reporting to physician/respiratory therapist.

.(f) Equipment and Material Management:

- .(f).1 Setting up relevant medical equipment including calibration and testing.
- .(f).2 Ensure that medical equipment have been maintained on a regular basis.
- .(f).3 Sterilize equipment following universal practices and precautions.
- .(f).4 Order materials and supplies for respiratory care services.
- .(f).5 Report equipment failures.

6. Specific Learning Requirement

Respiratory Therapists must remain competent within the context of their practice setting. They must seek continuous education to enhance their knowledge and refine their skills to keep up to date with the newly introduced technologies. There are areas in the practice of Respiratory Therapist that requires Specific training Requirements, such as:

- 6.1 Tobacco treatment specialists (TTS):** Obtain special training to provide treatments that aims at tobacco control and cessation.
- 6.2 Administration of sedative and analgesic medications:** Successful completion of specialty education and competency assessment program on sedation and analgesia
- 6.3 Management of invasive and non-invasive mechanical ventilation:** Obtain formal training in clinical and disease-specific applications of mechanical ventilation.
- 6.4 Management of vascular catheter including insertion and care:** Obtain specific training and competence to perform this procedure.
- 6.5 Management of arterial lines including insertion and care:** Obtain specific training and competence to perform this procedure.
- 6.6 Asthma Education specialists (AE-C):** Obtain Specific training and competence is required.
- 6.7 Sleep disorder services:** Obtain Specific training and competence is required.
- 6.8 Polysomnography Specialist:** Obtain Specific training and competence to perform this procedure
- 6.9 Extracorporeal Membrane Oxygenation (ECMO)** ^{30,31,32}
 - 6.9.1 The Respiratory Therapist can handle and manage the Extracorporeal membrane oxygenation (ECMO) Technology and provide different ranges of activities and procedures depending on the individual qualification, experiences, accredited training, and competencies' level.
 - 6.9.2 The Respiratory Therapist may take over different tasks and responsibilities:
 - .(a) ECMO Coordinator: Responsible for the supervision and training of the technical staff, maintenance of equipment, and collection of patient data.
 - .(b) ECMO Clinical Specialist: Responsible about managing the ECMO system and clinical needs of the patient on ECMO under direction and supervision of an ECMO trained physician.

7. Relevant Reference Documents

| No. | Reference Date | Reference Name | Relation Explanation / Coding / Publication Links |
|------|------------------|---|---|
| 8.1 | September 2022 | Ministerial Resolution No. (1448) of 2017 on Adoption of Code of Ethics and Professional Conduct for Health Professionals | Arabic version https://mohap.gov.ae/app_content/legislations/php-law-ar-64/mobile/index.html English version https://mohap.gov.ae/app_content/legislations/php-law-en-64/mobile/index.html |
| 8.2 | November 2021 | Article 24 of Federal Law No. (5) of 2019 on Regulating the Practice of Human Medicine and its Executive Regulations | Arabic version https://www.doh.gov.ae/ar/about/law-and-legislations English version https://mohap.gov.ae/en/about-us/legal-references |
| 8.3 | 26-January -2023 | Ministerial Resolution No. 14 of 2021 regarding the charter of patient rights and duties | Ministerial Resolution No. 14 of 2021.pdf.aspx (mohap.gov.ae) |
| 8.4 | September 2022 | Federal Law on the Prevention of Communicable Disease No. (14) of 2014 and its Executive Regulations | Arabic version https://www.doh.gov.ae/ar/about/law-and-legislations English version https://mohap.gov.ae/en/about-us/legal-references |
| 8.5 | 27January 2023 | Federal Law No. 29 of 2006 Concerning the Rights of Persons with Disabilities | https://www.un.org/development/desa/disabilities/wp-content/uploads/sites/15/2019/11/United-Arab-Emirates-The-Rights-of-People-with-Special-Needs.pdf |
| 8.6 | September 2022 | Federal Decree Law No. (4) of 2016 Concerning Medical Liability and its Executive Regulations | https://www.doh.gov.ae/ar/about/law-and-legislations English version https://mohap.gov.ae/en/about-us/legal-references |
| 8.7 | September 2022 | Federal Law No. (3) of 2016 Concerning Child Rights Law "Wadeema" | https://www.mocd.gov.ae/ar/about-mocd/laws-and-legislations.aspx#page=1 |
| 8.8 | September 2022 | DOH Standard on Reporting Suspected Adverse Drug Reactions and Adverse Events Following Immunization | https://www.doh.gov.ae/-/media/E7AC622D823C4907AEF7965022804259.ashx |
| 8.9 | September 2022 | Federal Law No. (2) of 2019 Concerning the Use of Information and Communication Technology (ICT) in Health Fields | Arabic version https://www.doh.gov.ae/ar/about/law-and-legislations English version https://mohap.gov.ae/en/about-us/legal-references |
| 8.10 | September 2022 | Health Legislations Encyclopedia: Health Insurance Legislations | https://www.doh.gov.ae/ar/about/law-and-legislations |

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| 8.11 | August 2022 | Federal Law No. (8) of 2019 on Medical Products, the Profession of Pharmacy and Pharmaceutical Facilities and its Executive Regulations | Arabic version https://www.doh.gov.ae/ar/about/law-and-legislations ; English version https://mohap.gov.ae/en/about-us/legal-references |
| 8.12 | August 2022 | Doh Standard on Tele-Medicine | https://www.doh.gov.ae/en |
| 8.13 | August 2022 | Federal Decree-Law No. (30) of 2021 on Combating Narcotics and Psychotropic Substances | Arabic https://mohap.gov.ae/ar/about-us/legal-references |
| 8.14 | August 2022 | DOH Standard for The Management of Narcotics, Psychotropic and Semi-Controlled Medicinal Products of 2021 | English https://www.doh.gov.ae/-/media/8F268D5B4B074905AF42644F6D08DC17.ashx |
| 8.15 | January -2023 | Advances in Medical Education and Practice | Clinical Competencies in Advanced Practice Respiratory Therapy Education: Is It Time to Entrust the Learner? - PubMed (nih.gov) |
| 8.16 | January -2023 | Clinical practice and barriers of ventilatory support management in COVID-19 patients in Saudi Arabia: A survey of respiratory technicians. | Global Current Practices of Ventilatory Support Management in COVID-19 Patients: An International Survey - PubMed (nih.gov) |
| 8.17 | January -2023 | Scope of practice defined - Respiratory Therapy | CALIFORNIA, R. C. B. O. (n.d.). Scope of practice defined - Respiratory Therapy, (916). Retrieved from https://www.nursingworld.org/practice-policy/scope-of-practice/ |
| 8.18 | January -2023 | Home Respiratory Care. American Review of Respiratory Disease | Home Respiratory Care American Review of Respiratory Disease (atsjournals.org) |
| 8.19 | January -2023 | Respiratory Technicians as Extracorporeal Membrane Oxygenation (ECMO) | statement-of-ecmo.pdf (aarc.org) |
| 8.20 | January -2023 | Telehealth and Respiratory Therapy | statement-of-telehealth-and-respiratory-therapy.pdf (aarc.org) |
| 8.21 | January -2023 | Respiratory Technicians in an Emergency Setting | Care, A. A. of R. (2017a). Respiratory Technicians in an Emergency Setting, 75063. |
| 8.22 | January -2023 | Transport of the Mechanically Ventilated , Critically Injured or Ill , Neonate , Child or Adult Patient | Transport of the Mechanically Ventilated, Critically Injured or Ill, Neonate, Child or Adult Patient Desis: Senior Thesis (osu.edu) |
| 8.23 | January -2023 | Position Statement AARC Statement of Continuing Professional Education | Care, A. A. of R. (2020). Position Statement AARC Statement of Continuing Professional Education, 75063. |
| 8.24 | January -2023 | Respiratory Scopes – Qatar Council for Healthcare Practitioners | Practitioners, Q. C. for H. (n.d.). Respiratory Scopes. |
| 8.25 | January -2023 | Respiratory Care Scope of Practice | statement-of-scope-of-practice.pdf (aarc.org) |

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| 8.26 | January -2023 | Tobacco Use Control and Inhaled Controlled Substances | statement-of-tobacco-use-control-and-inhaled-controlled-substances-.pdf (aarc.org) |
| 8.27 | January -2023 | Administrative Code – Board of Respiratory Therapy | https://www.asbirt.alabama.gov/Rules.aspx#APPENDICES_II |
| 8.28 | January -2023 | Pulmonary Rehabilitation | Pulmonary Rehabilitation - Pulmonary Rehabilitation NHLBI, NIH |
| 8.29 | January -2023 | Extracorporeal Membrane Oxygenation using a Modified Cardiopulmonary Bypass System | https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9328033/ |
| 8.30 | January -2023 | The role of the ECMO specialist nurse | The role of the ECMO specialist nurse - PMC (nih.gov) |
| 8.31 | January -2023 | ELSO Guidelines for Training and Continuing Education of ECMO Specialists | ELSO PROTOCOLS: STANDARD OUTLINE |
| 8.32 | January -2023 | NICE - Extracorporeal membrane oxygenation (ECMO) for acute heart failure in adults | https://www.nice.org.uk/Guidance/IPG482 |
| 8.33 | January -2023 | Nova Scotia College of Respiratory Therapists (NSCRT) - Scope of Practice | https://www.nscrt.com/professional-practice/scope-of-practice |
| 8.34 | January -2023 | Sleep Disorders Specialty (SDS) - The National Board for Respiratory Care | https://www.nbrc.org/examinations/sds/ |
| 8.35 | January -2023 | Sleep Disorders Specialty (SDS) - The National Board for Respiratory Care | https://www.nbrc.org/examinations/sds/ |
| 8.36 | January -2023 | The Role of The Respiratory Therapist in Primary Care | Role-Description_RespiratoryTherapist.pdf (bcpsqc.ca) |
| 8.37 | January -2023 | Asthma and the Respiratory Therapist | https://www.aarc.org/education/online-courses/asthma-and-the-respiratory-therapist-2/ |
| 8.38 | January -2023 | Insertion and Maintenance of Vascular Catheters by Respiratory Therapists | statement-of-insertion-and-maintenance-of-vascular-catheters.pdf (aarc.org) |
| 8.39 | January -2023 | Asthma Educator Specialist (AE-C) | https://www.nbrc.org/examinations/certified-asthma-educator-ae-c/ |
| 8.40 | January -2023 | Insertion and Maintenance of Vascular Catheters by Respiratory Therapists | statement-of-insertion-and-maintenance-of-vascular-catheters.pdf (aarc.org) |
| 8.41 | January -2023 | Requirements for the PSO in the Respiratory Care Program | Requirements for the PSO in the Respiratory Care Program School of Health Professions (stonybrookmedicine.edu) |
| 8.42 | January -2023 | Mechanical Ventilation Competencies of the Respiratory Therapist in 2015 and Beyond | Mechanical Ventilation Competencies of the Respiratory Therapist in 2015 and BeyondDiscussion Respiratory Care (rcjournal.com) |
| 8.43 | January -2023 | Administration of Sedative and Analgesic Medications by Respiratory Therapists | statement-of-sedative-analgesic-medications.pdf (aarc.org) |