



Respiratory Scopes

Respiratory Technician
Respiratory Therapist
Sleep Technologist
Pulmonary Technician
Pulmonary Technologist



Criteria for National Registration – Respiratory Technician

Criteria	Respiratory Technician
Definition	The Respiratory Technician is an individual who either holds a current, valid license issued under a national authority or board that authorizes them to practice Respiratory Technician Role and use the title Respiratory Technician, or is eligible to apply for such license.
Practice Settings	Respiratory Technician practice in a wide variety of settings, such as hospitals, community health settings, educational institutions, long term care facilities, clinics, home care, and private practice.
Education	<ul style="list-style-type: none"> • Two (2) Year Diploma or Associates Degree in Respiratory Therapy or Health Science. • Individuals who are currently practicing in the state of Qatar and do not meet the above academic qualifications will be Grandfathered by Department of Healthcare Professions.
Scope of Practice	<p>Respiratory Technicians are experts in preparing, maintaining and repairing respiratory care equipment in a safe and efficient manner the practice of Respiratory Technician involves but is not limited to:</p> <ul style="list-style-type: none"> • Performs maintenance checks, implements planned maintenance program and repairs for all Respiratory Therapy equipment • Maintains concise and accurate documentation of all equipment in regards to performance checks, planned maintenance, problems and service. • Liaises with Medical Engineering and/or external vendors regarding equipment servicing and repairs. • Maintains spare and repair parts inventory for Respiratory Therapy equipment. • Assists in inventory control of RT Department • Assists with medical gas pipeline shutdowns and ensures emergency measures equipment is maintained and readily available. • Maintain Stocks of Respiratory Therapy equipment and consumables. • Assembles and tests Respiratory Therapy equipment to ensure good working order • Works at new Graduate entry level in a medical Technology unit including, but not limited to, Pulmonary Function Laboratory, Sleep laboratory, Respiratory Care, Anesthesia, Bio medical Engineering
Licensure	Candidates should have a valid license/registration certificate accompanying the required years of experience
Experience	<ul style="list-style-type: none"> • Overseas candidates: <ul style="list-style-type: none"> – One-year recent experience in the field of Respiratory care. • For Qatari Nationals, Qatar Universities graduates, offspring of Qatari women or offspring of residents, please refer to the DHP Circular No.24/2020
Competency validation	<ul style="list-style-type: none"> • Passing the DHP licensing examination (if applicable), unless exempted, please refer to Circular No.24/2020, and the qualifying examination policy at the following link: https://dhp.moph.gov.qa/en/Documents/Qualifying%20Examination%20Policy.pdf • Verification of the educational qualifications and relevant graduate clinical experience.
Other Requirements for Evaluation & Registration	<ul style="list-style-type: none"> • (Refer to DHP requirement for license Registration/Evaluation) https://dhp.moph.gov.qa/en/Pages/HowToRegisterToPracticeInQatar.aspx



Requirements for License renewal	<ul style="list-style-type: none">• (Refer to DHP requirement for license Registration/Evaluation) https://dhp.moph.gov.qa/en/Pages/HowToRegisterToPracticeInQatar.aspx
<p>Note: Applicant with break from practice please see the DHP “Break from Practice Policy” at the following link: https://dhp.moph.gov.qa/en/Documents/Policy%20on%20Break%20from%20Practice.pdf</p>	



Respiratory Technician - Scope of Practice

INTRODUCTION

The Respiratory Technician Scope of Practice is based on a competency framework that comprises **professional ethics, clinical practice, learning and development** intrinsic to the role of the Respiratory Technician. The Scope also describes the qualifications of the Respiratory Technician, roles and activities, and practice settings.

The Respiratory Technician is an entry level role, requiring a minimum diploma in a health-related field; working under the direct supervision of a Respiratory Therapist or Respiratory Technologist. As such, the patient contact is limited to supervised functions that include but are not limited to; Performing Pulmonary Function Tests and assisting with Sleep Studies.

STATEMENT OF PURPOSE:

The purpose of this document is to define Respiratory Technicians' scope of practice in Qatar to:

- (a) Describe the services offered by qualified Respiratory Technicians.
- (b) Define the accountability, required competencies, and scope of ethical and legal practice of the Respiratory Technician in relation to patients, families, other members of the multidisciplinary team, community and society.
- (c) Serve as a reference for license regulating authorities and professionals governing healthcare.

DEFINITION OF RESPIRATORY CARE:

Respiratory Care is the healthcare discipline that specializes in the promotion of optimum cardiopulmonary function and health. Respiratory Technicians use ethical approaches to apply scientific, evidence-based and best practice principles to assist other health professionals in preventing, identifying, and treating acute or chronic dysfunction of the cardiopulmonary system. Knowledge of the scientific principles underlying cardiopulmonary physiology and pathophysiology, as well as biomedical engineering and technology, enable Respiratory Technicians to effectively assist Respiratory Technologists and Respiratory Therapists in assessing, educating, treating, and offering preventive and health promotive care to patient groups with cardiopulmonary deficiencies across the care continuum.

PROFESSIONAL ROLES AND ACTIVITIES:

Respiratory Care is a techno-clinical discipline, which means that the rapid pace of technological advancement, scientific discovery, and concomitant increase in medical knowledge all contribute to the dynamic nature of this discipline. As Respiratory Care evolves, it becomes necessary that additional knowledge and skills are acquired by Respiratory Technicians beyond their preclinical education.

1. DOMAIN ONE: PROFESSIONAL AND ETHICAL PRACTICE

This domain defines the professional accountability and scope of ethical and legal practice of the Respiratory Technician in relation to patients, families, other members of the multidisciplinary team, community and society.

1.1 Competency Standard: Accountability

Accepts accountability for own actions, and decision-making and for the related outcomes.

Performance criteria:

- 1.1.1 Works within the limits of own competence and the boundaries of the Scope of Practice.
- 1.1.2 Provides care without discrimination on any basis, with respect for the rights and dignity of all individuals.
- 1.1.3 Encourages and promotes appropriate stewardship of resources.
- 1.1.4 Avoids any activity that creates a conflict of interest or violates any Qatari laws and regulations.

1.2 Competency Standard: Ethical Practice

Demonstrates integrity, accountability, honors the rights and dignity of all individuals, and pursues a quest for excellence in all professional activities that serve the best interests of the patient, society, and the profession.

Performance criteria:



- 1.2.1 Engages in ethical decision-making with respect to own professional responsibilities or where ethical issues affect healthcare delivery or clinical decision-making.
- 1.2.2 Acts as patient advocate protecting the person's rights in accordance with Qatari law and organization specific terms and conditions.
- 1.2.3 Maintains patient confidentiality and makes every reasonable effort to ensure the security of written, verbal and electronic patient information.
- 1.2.4 Respects the patients' (including children and young people and their parents') right to be fully informed, establishing a context for self-determination, assent (children) and informed consent.
- 1.2.5 Acts sensitively and fairly giving due consideration to diversity, including cultural and religious beliefs, race, age, gender, physical and mental state, and other relevant factors.
- 1.2.6 Questions when appropriate, healthcare practice where the safety of others is at risk and where the quality of care warrants improvement; acts where the safety of care is compromised and where necessary reports others who may be risking patient safety.
- 1.2.7 Demonstrates professional integrity and ethical conduct in matters where a conflict of interest could be construed, i.e. when advising on the use of products, devices or services (as per organizational approved policy and Code of Professional Conduct and Ethics for Respiratory Technicians).

1.3 Competency Standard: Legal Practice

Functions at all times in accordance with legislative, regulatory and policy guidelines relevant to Respiratory Therapy and the role of a Respiratory Technician.

Performance criteria:

- 1.3.1 Practices in accordance with agreed policies and procedures that guide respiratory therapy and technology.
- 1.3.2 Practices in accordance with relevant laws and regulations that govern respiratory therapy practice.
- 1.3.3 Maintains valid registration and licensure to practice in Qatar.
- 1.3.4 Recognizes and acts upon breaches of laws and regulations relating to the professional role and/or Professional Code of Conduct and Ethics for Respiratory Technicians.

2. DOMAIN TWO: Clinical Practice

As a healthcare profession, Respiratory Care is practiced under medical direction across the health care continuum. Respiratory Technicians, additionally, work directly under the supervision and direction of Respiratory Therapists or Respiratory Technologists. Critical thinking, patient/environment assessment skills, and evidence-based practice guidelines enable Respiratory Technicians to develop and implement effective work plans.

2.1 Competency Standard: Provision of Care

The practice of the Respiratory technician in the delivery of Respiratory Care involves but is not limited to:
Only under direct supervision of Respiratory Therapist or Respiratory Technologist:

- 2.1.1 The provision of respiratory care services that are safe, aseptic, preventive, and restorative to the patient.
- 2.1.2 The provision of respiratory care services, including but not limited to, the administration of pharmacological, diagnostic and therapeutic agents and or interventions related to respiratory care procedures necessary to implement a treatment, disease prevention, pulmonary rehabilitative or diagnostic regimen prescribed by a physician.
- 2.1.3 Observation and monitoring of signs and symptoms, general behavior, general physical response to respiratory care treatment and diagnostic testing.
- 2.1.4 Ensuring a safe environment for the patient in the use of medical instrumentation.

2.2 Competency Standard: Patient Centered Care

The Respiratory Technician collects and interprets information, and carries out diagnostic and therapeutic interventions under direct supervision of Respiratory Therapist or Respiratory Technologist.

Performance criteria



- 2.2.1 Performs and evaluates the quality of diagnostic procedures that include, but are not limited to: Pulmonary function studies, relevant allergy testing and immunology, sleep studies and cardiopulmonary exercise testing.
- 2.2.2 Adheres to universal precautions.
- 2.2.3 Administration of aerosolized medications appropriate to diagnostic evaluations in the Pulmonary Function Laboratory, under an order by a Physician.

2.3 Competency Standard: Evidence-Based Practice

Under direction from Respiratory Therapist or Respiratory Technologist Integrates evidence and research findings into practice.

Performance Criteria:

- 2.3.1 Utilizes current evidence-based knowledge, including research findings, to guide respiratory therapy and technology practice.
- 2.3.2 Participates in the implementation of evidence-based practice based on best available credible research and/or national and international professional consensus, guidance and audit.

2.4 Competency Standard: Communication and Teamwork

Uses communication skills to ensure that other members of the health care team, the patient and their family are and remain fully informed.

Performance Criteria:

- 2.4.1 Establishes relationships of trust, respect, honesty and empathy.
- 2.4.2 Demonstrates cultural competence across all patient groups.
- 2.4.3 Consistently and clearly communicates relevant, accurate and comprehensive information in verbal, written and electronic forms in a timely manner to ensure the delivery of safe, competent and ethical care.
- 2.4.4 Participates in building consensus and or resolving conflict in the context of patient care.
- 2.4.5 Engages in teamwork and the team-building processes.
- 2.4.6 Works effectively with other professionals to prevent, negotiate and resolve inter-professional conflict.

3 DOMAIN THREE: Self Leadership

Exhibits qualities required for the provision of safe, effective respiratory care. This domain includes concordance with the healthcare organization's Code of Behaviors as the operating framework.

3.1 Competency Standard: Quality Improvement and Safety

Ensures respiratory therapy and technology practice meets organizational quality and safety standards and guidelines and participates in continuous quality improvement.

Performance criteria:

- 3.1.1 Practices in accordance with approved quality standards and guidelines reflecting recognized evidence based best practice.
- 3.1.2 Implements quality assurance and risk management strategies according to institutional and unit policies and procedures
- 3.1.3 Ensures a safe environment by identifying actual and potential risks and takes timely action to meet national legislation and workplace health and safety principles.
- 3.1.4 Acknowledges own limitations in knowledge, judgment and/or skills, and functions within those limitations.
- 3.1.5 Recognizes less than optimum or unsafe practice in self and others and intervenes, records and reports, and acts to access and/or provides support to ensure remediation of deficiencies.
- 3.1.6 Participates in ongoing quality improvement and risk management initiatives.
- 3.1.7 Adheres to and implements infection control policies and procedures.
- 3.1.8 Communicates and records safety concerns to the relevant authority and documents response.

4 DOMAIN FOUR: Education, learning and development



4.1 Competency Standard: Education

Demonstrates commitment to self-development.

Performance criteria:

4.1.1 Takes opportunities to learn together with others in order to contribute to health care improvement.

4.2 Competency Standard: Lifelong learning

Assumes responsibility for own professional development through lifelong learning to ensure continued competence and performance improvement.

Performance criteria:

4.2.1 Undertakes regular self-assessment and reviews own practice through reflection, peer review, institutional competency assessment, critical examination and evaluation.

4.2.2 Actively engages in ongoing professional development and performance improvement.

References

- [1] American Association for Respiratory Care. Development of Baccalaureate and Graduate Degrees in Respiratory Care. https://www.aarc.org/resources/bacc_edu/index.asp
- [2] California Society for Respiratory Care. California Licensed Respiratory Care Practitioner Scope of Practice. http://www.rcb.ca.gov/forms_pubs/rcp_scope_of_practice.pdf
- [3] College of Respiratory Technicians of Ontario (2010). Standards of Practice. <http://www.crto.on.ca/members/being-a-professional/standards-of-practice/>
- [4] Commission on Accreditation for Respiratory Care (2013). CoARC Advanced Practice Standards for the Profession of Respiratory Care. <https://www.google.com/#q=CoARC+Advanced+Practice+Standards+for+the+30+Profession+of+Respiratory+Care>.
- [5] The Canadian Society of Respiratory Technicians (2011). Levels of Practice. http://www.csrt.com/en/professional/levels_practice-nov25-2011.asp
- [6] The Canadian Society of Respiratory Technicians. Standards of Practice. http://www.csrt.com/en/professional/standards_practice.asp.
- [7] The Philippine Respiratory Therapy Act of 2009.
- [8] http://www.lawphil.net/statutes/repacts/ra2010/ra_10024_2010.html



Criteria for National Registration – Respiratory Therapist

Criteria	Respiratory Therapist (RT)
Definition	<p>The Respiratory Therapist is an individual who holds a current, valid license issued under a national authority or board that authorizes them to practice respiratory therapy and use the title Respiratory Therapist.</p> <p>A respiratory therapist is a specialized health care practitioner who assesses, educate, treat, and to offer preventive and health care promotion to patient with cardiopulmonary deficiencies across the care continuum.</p>
Practice Settings	Respiratory Therapists practice in a wide variety of settings, such as hospitals, community health settings, educational institutions, long term care facilities, clinics, home care, and private practice.
Education	<ul style="list-style-type: none"> • Two (2) Year Associates Degree in Respiratory Therapy OR • Three (3) Year Diploma in Respiratory Therapy OR • Bachelor's Degree in Respiratory Therapy.
Scope of Practice Scope of Practice Cont'd	<p>Respiratory Care is the healthcare discipline that specializes in the promotion of optimum cardiopulmonary function and health. Respiratory Therapists use ethical approaches to apply scientific, evidence-based and best practice principles to prevent, identify, and treat acute or chronic dysfunction of the cardiopulmonary system. Knowledge of the scientific principles underlying cardiopulmonary physiology and pathophysiology, as well as biomedical engineering and technology, enable respiratory therapists to effectively assess, educate, and treat, and to offer preventive and health care promotion to patient with cardiopulmonary deficiencies across the care continuum. The practice of Respiratory Care involves but is not limited to:</p> <ul style="list-style-type: none"> • The provision of respiratory care services that is safe, aseptic, preventive, and restorative to the patient. • The provision of respiratory care services, including but not limited to, the administration of pharmacological, diagnostic and therapeutic agents and or interventions related to respiratory care procedures necessary to implement a treatment, disease prevention, pulmonary rehabilitative or diagnostic regimen prescribed by a physician. • Observation and monitoring of signs and symptoms, general behavior, general physical response to respiratory care treatment and diagnostic testing. • Determination and taking appropriate action when signs, symptoms, reactions, behavior or general response exhibits abnormal characteristics or undesirable effects. • Implementation of appropriate action plan and intervention based on observed abnormalities of appropriate reporting or referral, or respiratory care protocols, or changes in treatment regimen. • The transcription and implementation of the written and verbal orders of a physician pertaining to the practice of respiratory care.
Licensure	Candidates should have a valid license/registration certificate accompanying the required years of experience
Experience	<ul style="list-style-type: none"> • Overseas candidates: <ul style="list-style-type: none"> – Two years (2) recent experience in the field of Respiratory care.



	<ul style="list-style-type: none">• For Qatari Nationals, Qatar Universities graduates, offspring of Qatari women or offspring of residents, please refer to the DHP Circular No.24/2020
Competency validation	<ul style="list-style-type: none">• Passing the DHP licensing examination (if applicable), unless exempted, please refer to Circular No.24/2020, and the qualifying examination policy at the following link: https://dhp.moph.gov.qa/en/Documents/Qualifying%20Examination%20Policy.pdf• Verification of the educational qualifications and relevant graduate clinical experience.
Other Requirements for Evaluation & Registration	<ul style="list-style-type: none">• (Refer to DHP requirement for license Registration/Evaluation) https://dhp.moph.gov.qa/en/Pages/HowToRegisterToPracticeInQatar.aspx
Requirements for License renewal	<ul style="list-style-type: none">• (Refer to DHP requirement for license Registration/Evaluation) https://dhp.moph.gov.qa/en/Pages/HowToRegisterToPracticeInQatar.aspx
<p>Note: Applicant with break from practice please see the DHP “Break from Practice Policy” at the following link: https://dhp.moph.gov.qa/en/Documents/Policy%20on%20Break%20from%20Practice.pdf</p>	



Respiratory Therapist - Scope of Practice

INTRODUCTION

The Respiratory Therapist Scope of Practice is based on a competency framework that comprises **professional ethics, clinical practice, leadership and management, learning and development**, and **research** intrinsic to the role of the Respiratory Therapist. The Scope also describes the qualifications of the Respiratory Therapist, professional roles and activities, and practice settings.

STATEMENT OF PURPOSE:

The purpose of this document is to define Respiratory Therapists' scope of practice in Qatar to:

- (a) Describe the services offered by qualified Respiratory Therapists.
- (b) Define the professional accountability, required competencies, and scope of ethical and legal practice of the Respiratory Therapist in relation to patients, families, other members of the multidisciplinary team, community and society.
- (c) Serve as a reference for license regulating authorities and professionals governing healthcare.

DEFINITION OF RESPIRATORY CARE:

Respiratory Care is the healthcare discipline that specializes in the promotion of optimum cardiopulmonary function and health. Respiratory Therapists use ethical approaches to apply scientific, evidence-based and best practice principles to prevent, identify, and treat acute or chronic dysfunction of the cardiopulmonary system. Knowledge of the scientific principles underlying cardiopulmonary physiology and pathophysiology, as well as biomedical engineering and technology, enable respiratory therapists to effectively assess, educate, and treat, and to offer preventive and health care promotion to patient with cardiopulmonary deficiencies across the care continuum.

PROFESSIONAL ROLES AND ACTIVITIES:

Respiratory Care is a techno-clinical discipline, which means that the rapid pace of technological advancement, scientific discovery, and concomitant increase in medical knowledge, as well as the changing landscape of healthcare, contribute to the dynamic nature of this discipline. As Respiratory Care evolves, it becomes necessary that additional knowledge and skills leading to expanded practice are acquired by Respiratory Therapists beyond their preclinical education. Expanded practice education may take place within college programs; in baccalaureate and/or graduate degree programs; or as clinical based programs and experience. Credentialing, or recognition, for expanded practice expertise is in addition to the respiratory therapist credential and may be at either a regional or national level. The confluence of factors described above, have led to Respiratory Therapists' level of practice being adapted to meet the needs of a complex health care delivery system.

COMPETENCY FRAMEWORK

1. DOMAIN ONE: PROFESSIONAL AND ETHICAL PRACTICE

This domain defines the professional accountability and scope of ethical and legal practice of the Respiratory Therapist in relation to patients, families, other members of the multidisciplinary team, community and society.

1.1 Competency Standard: Accountability

Accepts accountability for own actions, and decision-making and for the related outcomes.

Performance criteria:

- 1.1.1 Works within the limits of own competence and the boundaries of the Scope of Practice.
- 1.1.2 Identifies opportunities for advocacy, health promotion and disease prevention.
- 1.1.3 Provides care without discrimination on any basis, with respect for the rights and dignity of all individuals.
- 1.1.4 Encourages and promotes appropriate stewardship of resources.
- 1.1.5 Avoids any activity that creates a conflict of interest or violates any Qatari laws and regulations.
- 1.1.6 Promotes the growth of the profession, and presents a positive image of respiratory therapy to the community.



1.2 Competency Standard: Ethical Practice

Demonstrates integrity, accountability, honors the rights and dignity of all individuals, and pursues a quest for excellence in all professional activities that serve the best interests of the patient, society, and the profession.

Performance criteria:

- 1.2.1 Engages in ethical decision-making with respect to own professional responsibilities or where ethical issues affect healthcare delivery or clinical decision-making.
- 1.2.2 Acts as patient advocate protecting the person's rights in accordance with Qatari law and organization specific terms and conditions.
- 1.2.3 Maintains patient confidentiality and makes every reasonable effort to ensure the security of written, verbal and electronic patient information.
- 1.2.4 Respects the patients' (including children and young people and their parents') right to be fully informed, establishing a context for self-determination, assent (children) and informed consent.
- 1.2.5 Acts sensitively and fairly giving due consideration to diversity, including cultural and religious beliefs, race, age, gender, physical and mental state, and other relevant factors.
- 1.2.6 Questions when appropriate, healthcare practice where the safety of others is at risk and where the quality of care warrants improvement; acts where the safety of care is compromised and where necessary reports others who may be risking patient safety.
- 1.2.7 Demonstrates professional integrity and ethical conduct in matters where a conflict of interest could be construed, i.e. when advising on the use of drugs, products, devices or services (as per organizational approved policy and Code of Professional Conduct and Ethics for Respiratory Therapists).

1.3 Competency Standard: Legal Practice

Functions at all times in accordance with legislative, regulatory and policy guidelines relevant to Respiratory Therapy practice.

Performance criteria:

- 1.3.1 Practices in accordance with agreed policies and procedures that guide respiratory therapy practice.
- 1.3.2 Practices in accordance with relevant laws and regulations that govern respiratory therapy practice.
- 1.3.3 Maintains valid registration and licensure to practice in Qatar.
- 1.3.4 Recognizes and acts upon breaches of laws and regulations relating to the professional role and/or Professional Code of Conduct and Ethics for Respiratory Therapists.
- 1.3.5 Maintains a professional portfolio including evidence of continued competence and improvement.

2. DOMAIN TWO: Clinical Practice

As a healthcare profession, Respiratory Care is practiced under medical direction across the health care continuum. Critical thinking, patient/environment assessment skills, and evidence-based clinical practice guidelines enable respiratory therapists to develop and implement effective care plans, respiratory therapist-driven protocols, disease-based clinical pathways, and disease management programs.

2.1 Competency Standard: Provision of Care

The practice of Respiratory Care involves but is not limited to:

Performance criteria:

- 2.1.1 The provision of respiratory care services that is safe, aseptic, preventive, and restorative to the patient.
- 2.1.2 The provision of respiratory care services, including but not limited to, the administration of pharmacological, diagnostic and therapeutic agents and or interventions related to respiratory care procedures necessary to implement a treatment, disease prevention, pulmonary rehabilitative or diagnostic regimen prescribed by a physician.
- 2.1.3 Observation and monitoring of signs and symptoms, general behavior, general physical response to respiratory care treatment and diagnostic testing.



- 2.1.4 Determination and taking appropriate action when signs, symptoms, reactions, behavior or general response exhibits abnormal characteristics or undesirable effects.
- 2.1.5 Implementation of appropriate action plan and intervention based on observed abnormalities of appropriate reporting or referral, or respiratory care protocols, or changes in treatment regimen.
- 2.1.6 The transcription and implementation of the written and verbal orders of a physician pertaining to the practice of respiratory care.

2.2 Competency Standard: Patient Centered Care

The Respiratory Therapist collects and interprets information, makes appropriate clinical decisions, and carries out diagnostic and therapeutic interventions.

Performance criteria

- 2.2.1 Undertakes a comprehensive, systematic cardio-respiratory assessment involving the patient, family and other healthcare providers, as appropriate, in order to determine the needs, concerns, problems, issues, and/or diagnosis that serve as a basis for care planning.
- 2.2.2 Performs and evaluates the quality of diagnostic procedures that include, but are not limited to: Pulmonary function studies, relevant allergy testing and immunology, arterial blood gas sampling and analysis, sleep studies and cardiopulmonary exercise testing.
- 2.2.3 Initiates, monitors, and manages by physician approved protocol appropriate continuous mechanical ventilation modalities and relevant care.
- 2.2.4 Makes recommendations regarding the appropriateness of prescribed Respiratory Care plan, recommends modifications where indicated, and participates in the development and implementation of clinical pathways.
- 2.2.5 Collaborates with the multidisciplinary healthcare team to include the Respiratory Care plan with the overall care plan for the patient.
- 2.2.6 Educates the patient and family members/other caregivers as to the planned therapy and goals.
- 2.2.7 Adheres to universal precautions.
- 2.2.8 Provides care to achieve maintenance of a patent airway, to include placement, security and care of an artificial airway. This may include implementation of airway clearance techniques.
- 2.2.9 Administration of aerosolized, intratracheal, intramuscular, sub-cutaneous and intravenous medications as prescribed, assessment of patient's response, and recommends modification by protocol and physician order.
- 2.2.10 Provides therapeutic services to achieve and maintain adequate arterial and tissue oxygenation, which may include positioning to minimize hypoxemia.
- 2.2.11 Manages Extracorporeal Life Support Modalities according to training level and competency, as well as providing expert support to other members of the Critical care team.
- 2.2.12 Participates in advanced life support, resuscitation, and critical care transport of all patient populations.
- 2.2.13 Applies practical knowledge of the fundamental biomedical sciences including anatomy and physiology, chemistry and biochemistry, pharmacology, microbiology, and pathophysiology, as they apply to patient care.

2.3 Competency Standard: Evidence-Based Practice

Integrates evidence and research findings into practice.

Performance Criteria:

- 2.3.3 Utilizes current evidence-based knowledge, including research findings, to guide respiratory therapy practice.
- 2.3.4 Incorporates credible critically appraised evidence into respiratory therapy practice and when initiating change.
- 2.3.5 Participates in the formulation of evidence-based practice based on best available credible research and/or national and international professional consensus, guidance and audit.
- 2.3.6 Disseminates personal or third-party research, practice development and audit findings with colleagues and peers in order enhance respiratory therapy interventions and inform care delivery.



- 2.3.7 Critically evaluates research, audit and practice development findings that underpin respiratory therapy practice.
- 2.3.8 Promotes dissemination, use, monitoring and review of professional standards and best practice guidelines.

2.4 Competency Standard: Communication and Teamwork

Uses communication skills to ensure that other members of the health care team, the patient and their family are and remain fully informed.

Performance Criteria:

- 2.4.1 Establishes relationships of trust, respect, honesty and empathy.
- 2.4.2 Gathers information about disease, but also about a patient's beliefs, concerns, expectations and illness experience.
- 2.4.3 Seeks out and synthesizes relevant information from other sources, such as patient's family, caregivers and other professionals.
- 2.4.4 Delivers information to patients and their families, colleagues, and other members of the healthcare team, in a way that is understandable, and that encourages discussion and participation in decision- making.
- 2.4.5 Demonstrates cultural competence across all patient groups.
- 2.4.6 Consistently and clearly communicates relevant, accurate and comprehensive information in verbal, written and electronic forms in a timely manner to ensure the delivery of safe, competent and ethical care.
- 2.4.7 Participates in building consensus and or resolving conflict in the context of patient care.
- 2.4.8 Engages in teamwork and the team-building processes.
- 2.4.9 Works effectively with other professionals to prevent, negotiate and resolve inter-professional conflict.

3 DOMAIN THREE: Leadership and Management

Exhibits leadership qualities required for the provision of safe, effective respiratory care. This domain includes concordance with the healthcare organization's Code of Behaviors as the operating framework.

3.1 Competency Standard: Leadership

Exhibits leadership qualities and manages respiratory care safely, efficiently and ethically.

Performance Criteria:

- 3.1.1 Applies clinical reasoning, critical thinking and problem-solving skills in the provision, management and evaluation of care.
- 3.1.2 Manages self, and where appropriate assists others, to ensure effective workload prioritization and time management.
- 3.1.3 Provides feedback, offers suggestions for change and deals effectively with the impact of change on own practice, the team and/or on the organization.
- 3.1.4 Advocates for, and contributes to the creation and maintenance of a positive working environment and team working.
- 3.1.5 Participates in the mentorship and coaching of others maximizing the effectiveness of respiratory therapy interventions, the provision of quality health care and the profession.
- 3.1.6 Acts as a role model for colleagues, students and other members of the healthcare care team by treating all with respect, trust and dignity.
- 3.1.7 Fosters the advancement of Respiratory Therapy autonomy and accountability.
- 3.1.8 Promotes and maintains a positive image of Respiratory Therapy.
- 3.1.9 Assumes leadership responsibilities, as appropriate, in the delivery of respiratory therapy care.

3.2 Competency Standard: Quality Improvement and Safety

Ensures respiratory therapy practice meets organizational quality and safety standards and guidelines and participates in continuous quality improvement.

Performance criteria:



- 3.2.1 Practices in accordance with approved quality standards and guidelines reflecting recognized evidence based best practice.
- 3.2.2 Seeks evidence from a wide range of credible sources to maintain, extend and evaluate the quality of respiratory care.
- 3.2.3 Acts immediately and appropriately in accordance with the national and/or institutional disaster plan as needed participating in triage and coordination of care for patients.
- 3.2.4 Implements quality assurance and risk management strategies.
- 3.2.5 Ensures a safe environment by identifying actual and potential risks and takes timely action to meet national legislation and workplace health and safety principles.
- 3.2.6 Acknowledges own limitations in knowledge, judgment and/or skills, and functions within those limitations.
- 3.2.7 Recognizes less than optimum or unsafe practice in self and others and intervenes, records and reports, and acts to access and/or provides support to ensure remediation of deficiencies.
- 3.2.8 Participates in ongoing quality improvement and risk management initiatives.
- 3.2.9 Adheres to and implements infection control policies and procedures.
- 3.2.10 Communicates and records safety concerns to the relevant authority and documents response.

3.3 Competency Standard: Delegation and Supervision

Delegates and provides supervision to team members according to their competence and scope of practice.

Performance Criteria:

- 3.3.1 Delegates to others, activities commensurate with their abilities and scope of practice.
- 3.3.2 Uses a range of supportive strategies when supervising aspects of care delegated to others.
- 3.3.3 Maintains accountability and responsibility when delegating aspects of care to others

4 DOMAIN FOUR: Education, learning and development

4.1 Competency Standard: Education and Facilitation

Demonstrates commitment to the development of other members in the healthcare team, as well as patients, families, community and society.

Performance criteria:

- 4.1.1 Shares and disseminates professional knowledge and research findings with others.
- 4.1.2 Acts as a resource person for others.
- 4.1.3 Contributes to the formal and informal education and professional development of students and colleagues facilitating and where appropriate coordinating learning opportunities.
- 4.1.4 Acts as an effective preceptor and/or mentor as assigned, undertaking appropriate preparation and updating to undertake the roles.
- 4.1.5 Takes opportunities to learn together with others in order to contribute to health care improvement.

4.2 Competency Standard: Lifelong learning

Assumes responsibility for own professional development through lifelong learning to ensure continued competence and performance improvement.

Performance criteria:

- 4.2.1 Undertakes regular self-assessment and reviews own practice through reflection, peer review, competency assessment, critical examination and evaluation.
- 4.2.2 Instigates planned updating knowledge and skills for safe, person-centered, evidence-based practice.
- 4.2.3 Actively engages in ongoing professional development and performance improvement of self and others.
- 4.2.4 Maintains a record of learning and professional development activities and accreditation.

4.3 Competency Standard: Promotion of health and patient education

Will enable and provide information on maintaining and optimizing health and maximizing self-care.



Performance criteria:

- 4.3.1 Takes part in health promotion, patient education and illness prevention initiatives and contributes to their evaluation.
- 4.3.2 Applies knowledge of resources available for health promotion and health education.
- 4.3.3 Acts to empower the individual, family and community to adopt healthy lifestyles and concord with self-management of ill-health to promote wellbeing.
- 4.3.4 Provides relevant health information and patient education to individuals, families and communities to assist in achieving optimal health and rehabilitation.
- 4.3.5 Demonstrates understanding of traditional healing practices within an individual's, family and/or community's health belief systems and incorporates appropriately and/or provides education if adversely effecting optimum health.
- 4.3.6 Recognizes the potential for patient education and teaching for health and wellbeing in respiratory therapy interventions.
- 4.3.7 Applies knowledge of a variety of teaching and learning strategies with individuals, families and communities to effect and evaluate learning and concordance with treatment and advice.

5 DOMAIN FIVE: RESEARCH AND IMPROVEMENT

This domain articulates the requirement that the Respiratory Therapist should practice incorporating best available evidence to provide quality health care and contribute to the creation and/or implementation of knowledge through active participation.

5.1 Competency Standard: Using data and information systems

Uses data systems to enhance the quality and delivery of patient care.

Performance Criteria:

- 5.1.1 Acquires the information technology skills needed to inform and provide optimum healthcare care and document accurately outcomes of interventions.
- 5.1.2 Understands how to use technology and data to assist in problem identification and identification of deficiencies that can be remediated to enable improvements in patient care.
- 5.1.3 Analyses data accurately and comprehensively leading to appropriate interpretation of findings and development of implementation plans.

5.2 Competency Standard: Research Participation

Uses research, evaluation, service improvement and audit findings to enhance the quality of patient care and protect the rights of those participating.

Performance Criteria:

- 5.2.1 Participates in activities that disseminate research findings such as publications, journal clubs, grand rounds and presentations.
- 5.2.2 Promotes research, evaluation, service improvement initiatives and audit, designed to improve healthcare practice and disseminate findings to colleagues, patients, families, communities, and society.
- 5.2.3 Undertakes appropriate development to ensure competency to recruit, ensure informed consent is obtained, support involvement, facilitate, monitor and where appropriate advocate withdrawal of individuals participating in clinical research and evaluation.

References:

- [1] American Association for Respiratory Care. Development of Baccalaureate and Graduate Degrees in Respiratory Care. https://www.aarc.org/resources/bacc_edu/index.asp
- [2] California Society for Respiratory Care. California Licensed Respiratory Care Practitioner Scope of Practice. http://www.rcb.ca.gov/forms_pubs/rcp_scope_of_practice.pdf



- [3] College of Respiratory Therapists of Ontario (2010). Standards of Practice.
<http://www.crto.on.ca/members/being-a-professional/standards-of-practice/>
- [4] Commission on Accreditation for Respiratory Care (2013). CoARC Advanced Practice Standards for the Profession of Respiratory Care.
<https://www.google.com/#q=CoARC+Advanced+Practice+Standards+for+the+30+Profession+of+Respiratory+Care>.
- [5] The Canadian Society of Respiratory Therapists (2011). Levels of Practice.
http://www.csrt.com/en/professional/levels_practice-nov25-2011.asp
- [6] The Canadian Society of Respiratory Therapists. Standards of Practice.
http://www.csrt.com/en/professional/standards_practice.asp.
- [7] The Philippine Respiratory Therapy Act of 2009.
- [8] http://www.lawphil.net/statutes/repacts/ra2010/ra_10024_2010.html



Criteria for National Registration – Sleep Technologist

Criteria	Sleep Technologist
Definition	The Sleep Technologist is an individual who holds a current, valid license, Registration, or Certification issued under a national authority or board that authorizes them to practice in a Sleep Laboratory and use the title Polysomnography or Sleep Technologist or Sleep Specialist or EEG Technologist.
Practice Settings	Sleep Technologists practice in a numerous setting, such as hospitals, educational institutions, clinics and private practice.
Education	<ul style="list-style-type: none"> • Bachelor degree in Science • Bachelor degree in Respiratory Therapy • Bachelor degree in Nursing • 3 years Diploma in Respiratory Therapy • 2 years Associate degree in Respiratory Therapy <p>AND</p> <p>One of the following credentials:</p> <ul style="list-style-type: none"> • RPSGT (Registered Polysomnography Technologist) BRPT USA • RST (Registered Sleep technologist) ABSM USA • RRT SDS (Registered respiratory therapist – Sleep disorder specialty) NBRC USA • CPSGT (Certified polysomnography technologist) BRPT USA
Scope of Practice	<ul style="list-style-type: none"> • The Sleep Technologists role is a healthcare discipline that specializes in the promotion of optimum sleep, pulmonary and cardiac health. Sleep Technologists use ethical approaches to apply scientific, evidence-based and best practice principles to identify, and treat sleep related disorders. • Knowledge of the scientific principles underlying sleep physiology and pathophysiology, as well as biomedical engineering and technology, enable sleep technologists to effectively assess, educate, and treat, and to offer health promoter care to patient groups with sleep disorders across the care continuum. • The practice of a Sleep Technologist involves but is not limited to performing sleep studies to assess sleep and breathing quality measurement and evaluation of: <ul style="list-style-type: none"> – Electroencephalograms (EEG) – Electrocardiograms (two lead ECG) – Electromyograms (EMG) – Electrooculogram (EOG) – Ventilation – Respiratory inductance plethysmography – Body position – Transcutaneous carbon dioxide (TcCO₂) measurements – Various measures of upper airway tone – Esophageal pH – PAP & Oxygen titration



Licensure	Candidates should have a valid license/registration certificate accompanying the required years of experience
Experience	<ul style="list-style-type: none"> • Overseas candidates: <ul style="list-style-type: none"> – Two years (2) recent experience as a Registered Sleep Technologist • For Qatari Nationals, Qatar Universities graduates, offspring of Qatari women or offspring of residents, please refer to the DHP Circular No.24/2020
Competency validation	<ul style="list-style-type: none"> • Passing the DHP licensing examination (if applicable), unless exempted, please refer to Circular No.24/2020, and the qualifying examination policy at the following link: https://dhp.moph.gov.qa/en/Documents/Qualifying%20Examination%20Policy.pdf • Verification of the educational qualifications and relevant graduate clinical experience
Other Requirements for Evaluation & Registration	<ul style="list-style-type: none"> • (Refer to DHP requirement for license Registration/Evaluation) https://dhp.moph.gov.qa/en/Pages/HowToRegisterToPracticeInQatar.aspx
Requirements for License renewal	<ul style="list-style-type: none"> • (Refer to DHP requirement for license Registration/Evaluation) https://dhp.moph.gov.qa/en/Pages/HowToRegisterToPracticeInQatar.aspx
<p>Note: Applicant with break from practice please see the DHP “Break from Practice Policy” at the following link: https://dhp.moph.gov.qa/en/Documents/Policy%20on%20Break%20from%20Practice.pdf</p>	



Sleep Technologist - Scope of Practice

INTRODUCTION

The Sleep Technologist (also known as Sleep Scientist, Sleep Specialist, or Polysomnography Technologist) Scope of Practice is based on a competency framework that comprises; **professional ethics, clinical laboratory practice, leadership and management, learning and development**, and **research** intrinsic to the role of the Technologist. The Scope also describes the qualifications of the Sleep technologist, professional roles and activities, and practice settings.

STATEMENT OF PURPOSE:

The purpose of this document is to define Sleep Technologists' scope of practice in Qatar to:

- (a) Describe the services offered by qualified Sleep Technologists.
- (b) Define the professional accountability, required competencies, and scope of ethical and legal practice of the Sleep Technologist in relation to patients, families, other members of the multidisciplinary team, community and society.
- (c) Serve as a reference for license regulating authorities and professionals governing healthcare.

DEFINITION OF SLEEP TECHNOLOGIST:

The Sleep Technologist is an individual who holds a current, valid license, Registration, or Certification issued under a national authority or board that authorizes them to practice in a Sleep Laboratory and use the title Polysomnography or Sleep Technologist or Sleep Specialist or EEG Technologist.

PROFESSIONAL ROLES AND ACTIVITIES:

The Sleep Technologist performs sleep studies to assess sleep and breathing quality which includes measurement and evaluation of electroencephalograms (EEG), electrocardiograms (EKG), electromyograms (EMG), electrooculogram (EOG), ventilation, respiratory inductance plethysmography, body position, transcutaneous carbon dioxide (TcCO₂) measurements, various measures of upper airway tone, esophageal pH; all of which can directly or indirectly affect patient management for adult and /or pediatric patient populations. This role requires the use of highly specialized equipment.

In addition to performing sleep studies on patients it is essential that the Sleep Technologist takes responsibility for the evaluation, implementation, maintenance and on-going quality assurance of all instrumentation.

KNOWLEDGE CRITERIA:

An understanding of the following elements, which will be the outcome of undergraduate and post graduate training, are essential for individuals working in the Sleep setting:

- The anatomy, physiology and pathophysiology of the cardiopulmonary system.
- Physiology and architecture of sleep
- Sleep staging
- Cardiopulmonary function, dysfunction and risk factors.
- Principles and practice of sleep diagnostic and therapeutic tests, as well as associated risks.
- The concepts of acute and chronic illness, normality and crisis states as they relate to cardiopulmonary function.
- Medical equipment used in sleep studies and cardiopulmonary care, including, but not limited to, therapeutic, monitoring and diagnostic equipment.
- The principles and practice of routine and complex Sleep tests which may include but is not limited to:
 - Screening Polysomnography
 - Full Night Polysomnography
 - Split-Night PAP Titration and Polysomnography
 - Full-Night PAP Titration and Polysomnography
 - Nocturnal Oxygen Trend Studies
 - Mask Fitting and Desensitization Assessments
 - Auto PAP Home Titration Studies



- Multiple Sleep Latency Studies
- Maintenance of Wakefulness Studies
- Parasomnia Studies (e.g. Periodic Leg Movements PLMs)
- PAP and Oxygen Titrations
- Arterial Blood Gas – Arterial Sampling and Analysis

SPECIALTY AREAS:

The specialty area of Sleep technologist includes, but is not limited to:

- Sleep Laboratory
- Infant/Toddler Sleep Laboratory
- Pediatric an Adult Pulmonary/Sleep Outpatient Clinics
- CPAP Clinics

PRACTICE LIMITATIONS:

All Diagnostic and Therapeutic services provided by the Sleep Technologist require Physician orders. The Sleep Laboratory uses detailed Policies and Procedures and a Laboratory Test Method manual that utilizes international standards and guidelines and peer-reviewed, evidence-based methodologies.

COMPETENCY FRAMEWORK

DOMAINS OF PRACTICE:

1. DOMAIN ONE: PROFESSIONAL AND ETHICAL PRACTICE

This domain defines the professional accountability and scope of ethical and legal practice of the Sleep Technologist in relation to patients, families, other members of the multidisciplinary team, hospital, community and society as a whole.

1.1 Competency Standard: Accountability

Accepts accountability for own actions, decision making and for related outcomes.

Performance Criteria

- 1.1.1 Works within the limits of own competence and the boundaries of the Scope of Practice.
- 1.1.2 Identifies opportunities for advocacy, health promotion and disease prevention.
- 1.1.3 Provides care without discrimination on any basis, with respect for the rights and dignity of all individuals.
- 1.1.4 Encourages and promotes appropriate stewardship of resources.
- 1.1.5 Avoids any activity that creates a conflict of interest or violates any laws and regulations.
- 1.1.6 Promotes the growth of the profession and presents a positive image of Pulmonary Diagnostics.

1.2 Competency Standard: Ethical Practice

Demonstrates integrity, accountability, honors the rights and dignity of all individuals and pursues a quest for excellence in all professional activities that serve the best interests of the patient, colleagues, hospital, society and profession.

Performance Criteria

- 1.2.1 Engages in ethical decision-making with respect to own professional responsibilities or where ethical issues affect healthcare delivery or clinical decision-making.
- 1.2.2 Acts as a patient advocate protecting the person's rights in accordance with the law and organization specific terms and conditions.
- 1.2.3 Maintains patient confidentiality and makes every reasonable effort to ensure the security of written verbal and electronic patient information.
- 1.2.4 Respects the patients' right to be fully informed (including children and young people and their parents), establishing a context for self-determination, assent (children) and informed consent.
- 1.2.5 Acts sensitively and fairly giving due consideration to diversity, including cultural and religious beliefs, race, age, gender, physical and mental state and any other relevant factors.



- 1.2.6 Questions when appropriate, healthcare practice where the safety of others is at risk and where the quality of care warrants improvement; acts where the safety of care is compromised and where necessary reports others who may be risking patient safety.
- 1.2.7 Demonstrates professional integrity and ethical conduct in matters where a conflict of interest could be construed, i.e. when advising on the use of products or services as per organizational approved policy and codes of professional conduct and ethics for Sleep Technologists.

1.3 Competency Standard: Legal Practice

Functions at all times in accordance with legislative, regulatory and policy guidelines relevant to Sleep Technologists

Performance Criteria

- 1.3.1 Practices in accordance with agreed policies and procedures that guide sleep testing.
- 1.3.2 Practices in accordance with relevant laws and regulations that govern sleep testing.
- 1.3.3 Maintains valid licensure to practice in Qatar
- 1.3.4 Recognizes and acts upon breaches of laws and regulations relating to the professional role and/or professional Code of Conduct and Ethics for Sleep Technologists.

2 DOMAIN TWO: CLINICAL LABORATORY PRACTICE

As a healthcare profession, Sleep Diagnostics is practiced under medical direction as part of the health care continuum. Critical thinking, patient/environment assessment skills and evidence-based standards and guidelines enable the Sleep Technologist to provide appropriate and effective diagnostic testing and therapeutic interventions.

2.2 Competency Standard: Core Skills - Essential Functions

Performance Criteria

- 2.2.1 Prepares and calibration of all equipment and instrumentation required to provide comprehensive Sleep Testing (as listed under knowledge criteria)
- 2.2.2 Contributes to formal Quality Assurance program for all instrumentation used for patient assessment and diagnosis.
- 2.2.3 Follows all established evidence-based laboratory procedures for conducting sleep studies.
- 2.2.4 Administers of relevant pharmaceuticals for sleep studies as prescribed by the ordering physician.
- 2.2.5 Ensures the accuracy of data entry and record keeping for inclusion in test reports and patient medical records, including relevant patient history, referral information and observations relevant to the patient record, reporting physician, laboratory record and hospital administration.
- 2.2.6 Follows hospital and laboratory policies and procedures for cleaning, maintenance, infection control and quality assurance.
- 2.2.7 Involves in public awareness programs and patient education as required by the hospital and Supreme Council of Health in Qatar.
- 2.2.8 Provides support for orientation of new employees including acting a preceptor as required, involvement in education and training programs of the department, hospital and relevant universities providing medical and allied health training in the state of Qatar.
- 2.2.9 Involves directly or indirectly in research conducted at a unit, departmental or hospital level.

2.3 Competency Standard: Provision of Care

The provision of patient care during Sleep tests involves but is not limited to:

Performance Criteria

- 2.3.1 Provides service that is safe, appropriate, accurate and timely for the patient and the requesting physician.
- 2.3.2 Provides Sleep services which meet the needs of the patient and the requesting physician in the management of disease or aiding diagnosis.
- 2.3.3 Observes and monitors of patient's signs and symptoms, general behavior and physical response to Sleep Tests.



- 2.3.4 Determines and takes action when signs, symptoms, reactions, behavior and general response exhibit abnormal characteristics or undesirable effects.
- 2.3.5 Takes appropriate action or intervention when abnormalities are present in reports, referrals or test methods to ensure patient safety.
- 2.3.6 Implements and documents written or verbal orders for Sleep tests.

2.4 Competency Standard: Patient Centered Care

The Sleep Technologist collects and interprets information, makes appropriate clinical decisions and carries out diagnostic and relevant therapeutic interventions under medical supervision.

Performance Criteria

- 2.4.1 Treat patients and their families with care, respect and professionalism.
- 2.4.2 Provide patients and their families with clear and accurate information.
- 2.4.3 Evaluates the needs and circumstances of patients and their families for optimal compliance with the rigorous requirements for quality Sleep Test results.
- 2.4.4 Performs and evaluates the quality of diagnostic procedures that pertain to high quality Sleep Studies.
- 2.4.5 Makes recommendations regarding the appropriateness of requested diagnostic tests, recommends modifications where indicated to ensure the patient receives appropriate evidence-based care.
- 2.4.6 Collaborates with the multidisciplinary healthcare team to ensure patient centered management and optimal treatment by providing the timeliest and effective diagnostic procedures outlined in this Scope of Practice.
- 2.4.7 Educates and informs the patient and family members / other caregivers as to the requirements of testing procedures and the likely patient experience.
- 2.4.8 Adheres to universal precautions.
- 2.4.9 Remains competent in Basic Life Support (BLS)
- 2.4.10 Applies a practical knowledge of the fundamental biomedical and technological sciences including anatomy, physiology, biochemistry, pharmacology, microbiology, pathophysiology, instrumentation and biostatistics to provide high quality and patient appropriate diagnostic testing.

2.5 Competency Standard: Evidence-Based Practice

Integrates evidence and research findings into practice and the development of new methodologies

Performance Criteria

- 2.5.1 Utilizes current evidence-based knowledge, including research findings, to improve the breadth and quality of diagnostic tests available.
- 2.5.2 Incorporates credible, critically appraised and peer-reviewed evidence into laboratory practice and testing.
- 2.5.3 Participates in the formulation of evidence-based practice using the best available credible research and/or national and international professional consensus, guidance, standards and audit.
- 2.5.4 Disseminates personal or third-party research, practice development, improved testing methodologies, new standards and audit findings with colleagues and peers in order to enhance Sleep Testing and improve patient care.
- 2.5.5 Critically evaluates research, audit and laboratory practice that underpin the Sleep Laboratory and questions existing practice and knowledge.
- 2.5.6 Promotes dissemination, use, monitoring and review of professional standards and best practice guidelines.

2.6 Competency Standard: Communication and Teamwork

Uses communication skills to ensure that other members of the health care team, the patient and their family are and remain fully informed.

Performance Criteria

- 2.6.1 Establishes relationships of trust, respect, honesty and empathy.



- 2.6.2 Gathers information about disease, but also about a patient's beliefs, concerns, expectations and illness experience.
- 2.6.3 Seeks out and synthesizes relevant information from other sources, such as patient's family, caregivers and other professionals.
- 2.6.4 Delivers information to patients and their families, colleagues and other members of the healthcare team, in a way that is understandable and that encourages discussion and participation in decision making.
- 2.6.5 Demonstrates cultural competence across all patient groups.
- 2.6.6 Consistently and clearly communicates relevant, accurate and comprehensive information in verbal, written and electronic forms in a timely manner to ensure the delivery of safe, competent and ethical care.
- 2.6.7 Participates in building consensus and or resolving conflict in the context of patient care.
- 2.6.8 Engages in teamwork and team-building processes.
- 2.6.9 Works effectively with other professionals to prevent, negotiate and resolve inter-professional conflict.

3 DOMAIN THREE: LEADERSHIP AND MANAGEMENT

Exhibits leadership qualities required for the provision of safe and effective Pulmonary Diagnostic testing. This Domain includes concordance with the healthcare organization's Code of Behaviors as the operating framework as well as self-management, responsibility and contribution to team performance.

3.1 Competency Standard: Leadership

Exhibits leadership qualities and manages Pulmonary Diagnostics safely, efficiently and ethically.

Performance Criteria

- 3.1.1 Applies clinical reasoning, critical thinking and problem solving in the provision, management and evaluation of clinical work.
- 3.1.2 Manages self and, where appropriate, assists others to ensure effective workload prioritization and time management.
- 3.1.3 Provides feedback, offers suggestions for change and deals effectively with the impact of change on own clinical work, the team and/or the organization.
- 3.1.4 Advocates for, and contributes to, the creation and maintenance of a positive working environment and team working.
- 3.1.5 Participates in the mentorship and coaching of others maximizing the effectiveness of Sleep testing, the provision of quality healthcare and the profession.
- 3.1.6 Acts as a role model for colleagues, students and other members of the healthcare team by treating all with respect, trust and dignity.
- 3.1.7 Fosters the advancement of the profession, its autonomy and accountability.
- 3.1.8 Promotes and maintains a positive image of the profession.
- 3.1.9 Assumes leadership responsibilities as appropriate in the performance of duties.

3.2 Competency Standard: Quality Improvement and Safety

Ensures work practices meet professional and organizational quality and safety standards, guidelines and participates in continuous quality improvement.

Performance Criteria

- 3.2.1 Works in accordance with approved quality standards and guidelines reflecting recognized evidence-based best practice.
- 3.2.2 Seeks evidence from a wide range of credible sources to maintain, extend and evaluate the quality of Sleep Testing.
- 3.2.3 Acts immediately and appropriately in accordance with the national and/or institutional disaster plan as needed.
- 3.2.4 Implements quality assurance and risk management strategies.
- 3.2.5 Ensures a safe work environment by identifying actual and potential risks and takes timely action to meet national legislative and workplace health and safety principles.



- 3.2.6 Acknowledges own limitations in knowledge, judgment and/or skills and functions within those limitations.
- 3.2.7 Recognizes less than optimum or unsafe practice in self and others and intervenes, records and reports and acts to access or provide support for remediation of deficiencies.
- 3.2.8 Participates in ongoing quality improvement and risk management initiatives.
- 3.2.9 Adheres to and implements infection control policies and procedures.
- 3.2.10 Communicates and records safety concerns to the relevant authority and documents response.

3.3 Competency Standard: Delegation and Supervision

Delegates and provides supervision to team members according to their competence and scope of practice

Performance Criteria

- 3.3.1 Delegates to others, activities commensurate with their abilities and scope of practice.
- 3.3.2 Uses a range of supportive strategies when supervising work delegated to others.
- 3.3.3 Maintains accountability and responsibility when delegating work to others.

4 DOMAIN FOUR: EDUCATION, LEARNING AND DEVELOPMENT

This Domain defines the responsibilities for the continuing professional development of the Unit, team and self.

4.1 Competency Standard: Education and Facilitation

Demonstrates a commitment to the development of other members of the health care team, as well as patients, families, the organization, community and society. Shares and disseminates professional knowledge and research findings with others.

Performance Criteria

- 4.1.1 Acts as a resource person for others.
- 4.1.2 Contributes to the facilitation of formal and informal education and professional development of students and colleagues and where appropriate coordinating learning opportunities.
- 4.1.3 Acts as an effective preceptor and/or mentor as assigned, using appropriate preparation and updating to undertake the roles.
- 4.1.4 Takes opportunities to learn together with others in order to contribute to healthcare improvement.

4.2 Competency Standard: Lifelong Learning

Assumes responsibility for own professional development through lifelong learning to ensure continued competence and performance improvement.

Performance Criteria

- 4.2.1 Undertakes regular self-assessment and reviews own work practices through reflection, peer review, competency assessment, critical examination and evaluation.
- 4.2.2 Instigates planned updating of knowledge and skills for safe, patient-centered, evidence-based practice.
- 4.2.3 Actively engages in ongoing professional development and performance improvement of self and others.
- 4.2.4 Maintains a record of learning and professional development activities and accreditation.

4.3 Competency Standard: Health Promotion and Patient Education

Will enable and provide information on maintaining and optimizing health and maximizing self-care.

Performance Criteria

- 4.3.1 Takes part in relevant health promotion, patient education and illness prevention initiatives and contributes to their evaluation.
- 4.3.2 Applies knowledge of resources available for health promotion and health education.
- 4.3.3 Acts to empower the individual, family and community to adopt healthy lifestyles and concord with self-management of ill-health to promote wellbeing.



- 4.3.4 Provides relevant health information and patient education to individuals, families and communities to assist in achieving optimal health and rehabilitation.
- 4.3.5 Recognizes the potential for patient education and teaching for health and wellbeing within the course of work duties.
- 4.3.6 Applies knowledge of a variety of teaching and learning strategies with individuals, families and communities to effect and evaluate learning and concordance treatment and advice.

5 DOMAIN FIVE: RESEARCH AND DEVELOPMENT

This Domain articulates the requirement that the Sleep Technologist should practice incorporating best available evidence to provide quality healthcare and contribute to the creation and/or implementation of knowledge through active participation by involvement and/or leadership in research and improvement activities.

5.1 Competency Standard: Using Data and Information Systems

Uses data systems to enhance the quality of measurement, improve services to patients and advance the level of research.

Performance Criteria

- 5.1.1 Acquires the information technology skills needed to inform and provide optimum healthcare, accurately document outcomes and ensure data integrity for medical records and research opportunities.
- 5.1.2 Understands how to use technology and data to assist in the identification of problems and deficiencies that can be remediated to enable improvements in work practices, measurement and patient care.
- 5.1.3 Analyses data accurately and comprehensively, leading to appropriate interpretation of findings and the development of plans for data usage.

5.2 Competency Standard: Research Participation

Uses research, evaluation, service improvement and audit findings to enhance the quality of measurement, patient care and protect the rights of those participating.

Performance Criteria

- 5.2.1 Participates in activities that disseminate research findings such as publications, journal clubs, grand rounds and presentations.
- 5.2.2 Promotes research, evaluation, service improvement initiatives and audit, designed to improve work quality and healthcare practice and disseminate findings to colleagues, patients, families, communities and society.
- 5.2.3 Undertakes appropriate development to ensure competency to recruit, ensure informed consent is obtained, support involvement, facilitate, monitor and where appropriate advocate withdrawal of individuals participating in clinical research and evaluation.

References:

- [1] Board of Registered Polysomnographic Technologists <http://www.brpt.org/>
- [2] The National Board of Respiratory care <http://www.nbrc.org/sds/pages/default.aspx>
- [3] Australasian Sleep Association <http://www.sleep.org.au/>
- [4] Australasian Sleep Technologists Association <http://sleeptechnologists.org/>
- [5] American Association of Respiratory Care <http://www.aarc.org/>
- [6] Association for Respiratory Technology and Physiology <http://www.artp.org.uk/en/sleep/index.cfm>
- [7] Canadian Sleep Association <http://www.css-scs.ca/menu/technologists/cec-programs>
- [8] Canadian Society of Respiratory Therapists <http://www.csrt.com/welcome>
- [9] American Board of Registration Electroencephalographic and Evoked Potential Technologists <http://abret.org/>



Criteria for National Registration – Pulmonary Function Technician

Criteria	Pulmonary Function Technician
Definition	The Pulmonary Function Technician is an allied health professional who is usually part of the Pulmonary Medicine, Anesthetics or Allied Health Department. The Pulmonary Function Technician works under the supervision of a Pulmonary Function Technologist. She/he assists in the diagnosis and evaluation of cardiopulmonary function and associated disorders. Provides therapeutic assessment, patient management, and rehabilitation. Assesses allergic chest, airways diseases, and the care of patients with deficiencies and abnormalities which affect cardiopulmonary function.
Practice Settings	Settings in which a Pulmonary Function Technician can practice: <ul style="list-style-type: none"> • Hospitals • Out-patient clinics • Some primary health care centers, • Education and research centers • Pulmonary Function laboratories • Occupational health centers • Public settings (e.g. shopping malls) for health promotion • Sports centers/clubs (Exercise Testing) • Workplaces/companies (OH&S)
Education	<ul style="list-style-type: none"> • Diploma in Respiratory Therapy OR • 2-year Diploma in Science or equivalent
Scope of Practice	The Pulmonary Function Technician operates under the supervision of a Pulmonary Function technologist and performs tests to assess lung function including but not limited to lung capacity, ventilation, oxygen transfer, consumption and transport, muscle strength and assessment of responses to allergens which may directly or indirectly affect patient management for all age groups and patient populations. This role requires the use of highly specialized equipment. In addition to performing tests on patients it is essential that the Pulmonary Function Technician takes responsibility for the evaluation, implementation, maintenance and on-going quality assurance of all instrumentation.
Experience	<ul style="list-style-type: none"> • Overseas candidates: <ul style="list-style-type: none"> – Two years (2) of experience as a Pulmonary Function Technician AND – Evidence of recent practice OR – Internship program for Nationals and Residents • For Qatari Nationals, Qatar Universities graduates, offspring of Qatari women or offspring of residents, please refer to the DHP Circular No.24/2020
Competency Validation	<ul style="list-style-type: none"> • Passing the DHP licensing examination (if applicable), unless exempted, please refer to Circular No.24/2020, and the qualifying examination policy at the following link: https://dhp.moph.gov.qa/en/Documents/Qualifying%20Examination%20Policy.pdf



	<ul style="list-style-type: none">• Verification of the educational qualifications and relevant graduate clinical experience.
Licensure	Candidates should have a valid license/registration certificate accompanying the required years of experience
Other requirements for Evaluation and registration	<ul style="list-style-type: none">• (Refer to DHP requirements for license Registration/Evaluation) https://dhp.moph.gov.qa/en/Pages/HowToRegisterToPracticeInQatar.aspx
Requirements of license renewal	<ul style="list-style-type: none">• (Refer to DHP requirements for license Registration/Evaluation) https://dhp.moph.gov.qa/en/Pages/HowToRegisterToPracticeInQatar.aspx
Note: Applicant with break from practice please see the DHP "Break from Practice Policy" at the following link: https://dhp.moph.gov.qa/en/Documents/Policy%20on%20Break%20from%20Practice.pdf	



Pulmonary Function Technician - Scope of Practice

INTRODUCTION

The Pulmonary Function Technician Scope of Practice is based on a competency framework that comprises; **professional ethics, clinical laboratory practice, learning and development**, and **research** intrinsic to the role of the Technician. The Scope also describes the qualifications of the Pulmonary Function Technician, professional roles and activities, and practice settings.

STATEMENT OF PURPOSE:

The purpose of this document is to define Pulmonary Function Technicians' scope of practice in Qatar to:

- (a) Describe the services offered by qualified Pulmonary Function Technicians.
- (b) Define the professional accountability, required competencies, and scope of ethical and legal practice of the Pulmonary Function Technician in relation to patients, families, other members of the multidisciplinary team, community and society.
- (c) Serve as a reference for license regulating authorities and professionals governing healthcare.

DEFINITION OF PULMONARY FUNCTION TECHNICIAN:

The Pulmonary Function Technician is an allied health professional who is usually part of the Pulmonary Medicine, Anesthetics or Allied Health Department. The Pulmonary Function Technician works under the supervision of a Pulmonary Function technologist, they aid in the diagnosis and evaluation of cardiopulmonary function and associated disorders, provides therapeutic assessment, assists patient management and rehabilitation, and assesses allergic chest and airways diseases and the care of patients with deficiencies and abnormalities which affect cardiopulmonary function.

Pulmonary Diagnostics is an allied health professional activity which is usually part of the Pulmonary Medicine, Anesthetics or Allied Health Department. It aids the diagnosis and evaluation of cardiopulmonary function and associated disorders, provides therapeutic assessment, assists patient management and rehabilitation, assessment of allergic chest and airways diseases and the care of patients with deficiencies and abnormalities which affect cardiopulmonary function.

PROFESSIONAL ROLES AND ACTIVITIES:

The Pulmonary Function Technician performs, under the supervision of a qualified Pulmonary Function technologist, tests to assess lung function including but not limited to lung capacity, ventilation, oxygen transfer, consumption and transport, muscle strength and assessment of responses to allergens which may directly or indirectly affect patient management for all age groups and patient populations. This role requires the use of highly specialized equipment.

In addition to performing tests on patients it is essential that the Pulmonary Function Technician is involved, under supervision, in the evaluation, implementation, maintenance and on-going quality assurance of all instrumentation.

KNOWLEDGE CRITERIA:

An understanding of the following elements, which will be the outcome of undergraduate training, is important for individuals working in the Pulmonary Function setting:

- The anatomy, physiology and pathophysiology of the cardiopulmonary system.
- Cardiopulmonary function, dysfunction and risk factors.
- Principles and practice of cardiopulmonary diagnostic and therapeutic tests, as well as associated risks.
- The concepts of acute and chronic illness, normality and crisis states as they relate to cardiopulmonary function.
- Medical equipment used in cardiopulmonary care, including, but not limited to, therapeutic, monitoring and diagnostic equipment.
- The principles and practice of routine and complex pulmonary function tests which may include but is not limited to:
 - Spirometry Pre/Post Bronchodilator



- Slow vital capacity
- Lung Volume Determination – Body Plethysmography
- Lung Volume Determination – Inert Gas Technique (N2 Washout, He Dilution)
- DLCO Study
- Bronchial Provocation – Direct Challenge (e.g. Methacholine)
- Bronchial Provocation – Indirect Challenge (e.g. Exercise, Hypertonic Saline, Mannitol, Eucapnic Hyperventilation)
- Impulse Oscillometry
- Pulse Oximetry
- Skin Prick Allergy Test
- Maximum voluntary ventilation
- Exhaled Nitric Oxide Assessment
- Nasal Nitric Oxide
- High Altitude Simulation Test (HAST)
- Arterial Blood Gas – Arterial Sampling and Analysis
- Six Minute Walk Test
- Maximal Respiratory Pressures - PI/PE Max
- Lung clearance index
- Shunt Study
- Airway Resistance/Airway Conductance Measurement
- Expired Gas Collection
- End Tidal CO2 Measurements

SPECIALTY AREAS:

The specialty area of Pulmonary Function Technician includes, but is not limited to:

- Pulmonary Function Laboratory
- Pediatric and Adult Pulmonary Outpatient Clinics
- Allergy & Immunology Laboratory

PRACTICE LIMITATIONS:

All Diagnostic and Therapeutic services provided by the Pulmonary Technician are performed under the supervision of a qualified Pulmonary Function Technologist. All tests require Physician orders while some special procedures require direct patient supervision by a Pulmonary Physician or a Pulmonary Function Technologist.

The Pulmonary Function Laboratory uses detailed Policies and Procedures and a Laboratory Test Method manual that utilizes international standards and guidelines and peer-reviewed, evidence-based methodologies.

COMPETENCY FRAMEWORK

1. DOMAIN ONE: PROFESSIONAL AND ETHICAL PRACTICE

This domain defines the professional accountability and scope of ethical and legal practice of the Pulmonary Function Technician in relation to patients, families, other members of the multidisciplinary team, hospital, community and society as a whole.

1.1 Competency Standard: Accountability

Accepts accountability for own actions, decision making and for related outcomes.

Performance Criteria

- 1.1.1 Works within the limits of own competence and the boundaries of the Scope of Practice.
- 1.1.2 Provides care without discrimination on any basis, with respect for the rights and dignity of all individuals.
- 1.1.3 Encourages and promotes appropriate stewardship of resources.
- 1.1.4 Avoids any activity that creates a conflict of interest or violates any laws and regulations.



1.1.5 Promotes the growth of the profession and presents a positive image of Pulmonary Diagnostics.

1.2 Competency Standard: Ethical Practice

Demonstrates integrity, accountability, honors the rights and dignity of all individuals and pursues a quest for excellence in all professional activities that serve the best interests of the patient, colleagues, hospital, society and profession.

Performance Criteria

- 1.2.1 Engages in ethical decision-making with respect to own professional responsibilities or where ethical issues affect healthcare delivery or clinical decision-making.
- 1.2.2 Acts as a patient advocate protecting the person's rights in accordance with the law and organization specific terms and conditions.
- 1.2.3 Maintains patient confidentiality and makes every reasonable effort to ensure the security of written verbal and electronic patient information.
- 1.2.4 Respects the patients' right to be fully informed (including children and young people and their parents), establishing a context for self-determination, assent (children) and informed consent.
- 1.2.5 Acts sensitively and fairly giving due consideration to diversity, including cultural and religious beliefs, race, age, gender, physical and mental state and any other relevant factors.
- 1.2.6 Questions when appropriate, healthcare practice where the safety of others is at risk and where the quality of care warrants improvement; acts where the safety of care is compromised and where necessary reports others who may be risking patient safety.
- 1.2.7 Demonstrates professional integrity and ethical conduct in matters where a conflict of interest could be construed, i.e. when advising on the use of products or services as per organizational approved policy and codes of professional conduct and ethics for Pulmonary Function Technicians.

1.3 Competency Standard: Legal Practice

Functions at all times in accordance with legislative, regulatory and policy guidelines relevant to Pulmonary Function Technicians

Performance Criteria

- 1.3.1 Practices in accordance with agreed policies and procedures that guide pulmonary function testing.
- 1.3.2 Practices in accordance with relevant laws and regulations that govern pulmonary function testing.
- 1.3.3 Maintains valid licensure to practice in Qatar
- 1.3.4 Recognizes and acts upon breaches of laws and regulations relating to the professional role and/or professional Code of Conduct and Ethics for Pulmonary Function Technicians.

2 DOMAIN TWO: CLINICAL LABORATORY PRACTICE

As a healthcare profession, Pulmonary Diagnostics is practiced under medical direction as part of the health care continuum. Under direction from a Pulmonary Function Technologist; critical thinking, patient/environment assessment skills and evidence-based standards and guidelines enable the Pulmonary Function Technician to provide appropriate and effective diagnostic testing and therapeutic interventions.

2.1 Competency Standard: Core Skills - Essential Functions

Performance Criteria

- 2.1.1 Prepares and calibrates equipment and instrumentation required to provide comprehensive Pulmonary Function Testing (as listed under knowledge criteria)
- 2.1.2 Understands of and contributes to formal Quality Assurance program for all instrumentation used for patient assessment and diagnosis.
- 2.1.3 Administers relevant pharmaceuticals for challenge testing and therapies, including but not limited to: Bronchial Provocation agents and Bronchodilators administered via nebulizer, dosimeter or metered dose inhaler.
- 2.1.4 Administers subcutaneous allergens and treatments, including but not limited to: antihistamines,



- cortisone and adrenaline as an anaphylactic rescue treatment.
- 2.1.5 Ensures the accuracy of data entry and record keeping for inclusion in test reports and patient medical records, including relevant patient history, referral information and observations relevant to the patient record, reporting physician, laboratory record and hospital administration.
 - 2.1.6 Follows hospital and laboratory policies and procedures for cleaning, maintenance, and infection control and quality assurance.
 - 2.1.7 Participates in public awareness programs and patient education as required by the hospital and Supreme Council of Health in Qatar.
 - 2.1.8 Provides support for orientation of new employees including acting as a preceptor as required, involvement in education and training programs of the department, hospital and relevant universities providing medical and allied health training in the state of Qatar.
 - 2.1.9 Involves directly or indirectly in research conducted at a unit, departmental or hospital level.

2.2 Competency Standard: Provision of Care

The provision of patient care during Pulmonary Function tests involves but is not limited to:

Performance Criteria

- 2.2.1 Provides service that is safe, appropriate, accurate and timely for the patient and the requesting physician.
- 2.2.2 Provides Pulmonary Diagnostics services which meet the needs of the patient and the requesting physician in the management of disease or aiding diagnosis.
- 2.2.3 Observes and monitors of patient's signs and symptoms, general behavior and physical response to Pulmonary Function Tests.
- 2.2.4 Determines and takes action when signs, symptoms, reactions, behavior and general response exhibit abnormal characteristics or undesirable effects.
- 2.2.5 Takes appropriate action or intervention when abnormalities are present in reports, referrals or test methods to ensure patient safety.
- 2.2.6 Implements and documents of written or verbal orders for Pulmonary Function tests.

2.3 Competency Standard: Patient Centered Care

The Pulmonary Function Technician collects and interprets information, makes appropriate clinical decisions and carries out diagnostic and relevant therapeutic interventions under medical supervision.

Performance Criteria

- 2.3.1 Treats patients and their families with care, respect and professionalism.
- 2.3.2 Provides patients and their families with clear and accurate information.
- 2.3.3 Evaluates the needs and circumstances of patients and their families for optimal compliance with the rigorous requirements for quality Pulmonary Function Test results.
- 2.3.4 Performs and evaluates the quality of diagnostic procedures that include, but are not limited to: Pulmonary Function Studies, relevant allergy testing and immunology, arterial blood gas sampling and analysis
- 2.3.5 Makes recommendations regarding the appropriateness of requested diagnostic tests, recommends modifications where indicated to ensure the patient receives appropriate evidence-based care.
- 2.3.6 Collaborates with the multidisciplinary healthcare team to ensure patient centered management and optimal treatment by providing the timeliest and effective diagnostic procedures outlined in this Scope of Practice.
- 2.3.7 Educates and informs the patient and family members / other caregivers as to the requirements of testing procedures and the likely patient experience.
- 2.3.8 Adheres to universal precautions.
- 2.3.9 Remains competent in Basic Life Support (BLS)
- 2.3.10 Applies a practical knowledge of the fundamental biomedical and technological sciences including anatomy, physiology, biochemistry, pharmacology, microbiology, pathophysiology, instrumentation and biostatistics to provide high quality and patient appropriate diagnostic testing.



2.4 Competency Standard: Evidence-Based Practice

Integrates evidence and research findings into practice and the development of new methodologies

Performance Criteria

- 2.4.1 Utilizes current evidence-based knowledge, including research findings, to improve the breadth and quality of diagnostic tests available.
- 2.4.2 Incorporates credible, critically appraised and peer-reviewed evidence into laboratory practice and testing.
- 2.4.3 Participates in the formulation of evidence-based practice using the best available credible research and/or national and international professional consensus, guidance, standards and audit.
- 2.4.4 Disseminates personal or third-party research, practice development, improved testing methodologies, new standards and audit findings with colleagues and peers in order to enhance Pulmonary Function Testing and improve patient care.
- 2.4.5 Critically evaluates research, audit and laboratory practice that underpin the Pulmonary Function Laboratory and questions existing practice and knowledge.
- 2.4.6 Promotes dissemination, use, monitoring and review of professional standards and best practice guidelines.

2.5 Competency Standard: Communication and Teamwork

Uses communication skills to ensure that other members of the health care team, the patient and their family are and remain fully informed.

Performance Criteria

- 2.5.1 Establishes relationships of trust, respect, honesty and empathy.
- 2.5.2 Gathers information about disease, but also about a patient's beliefs, concerns, expectations and illness experience.
- 2.5.3 Seeks out and synthesizes relevant information from other sources, such as patient's family, caregivers and other professionals.
- 2.5.4 Delivers information to patients and their families, colleagues and other members of the healthcare team, in a way that is understandable and that encourages discussion and participation in decision making.
- 2.5.5 Demonstrates cultural competence across all patient groups.
- 2.5.6 Consistently and clearly communicates relevant, accurate and comprehensive information in verbal, written and electronic forms in a timely manner to ensure the delivery of safe, competent and ethical care.
- 2.5.7 Participates in building consensus and or resolving conflict in the context of patient care.
- 2.5.8 Engages in teamwork and team-building processes.
- 2.5.9 Works effectively with other professionals to prevent, negotiate and resolve inter-professional conflict.

3 DOMAIN THREE: LEADERSHIP AND MANAGEMENT

Exhibits leadership qualities required for the provision of safe and effective Pulmonary Diagnostic testing. This Domain includes concordance with the healthcare organization's Code of Behaviors as the operating framework as well as self-management, responsibility and contribution to team performance.

3.1 Competency Standard: Leadership

Exhibits leadership qualities and manages Pulmonary Diagnostics safely, efficiently and ethically.

Performance Criteria

- 3.1.1 Applies clinical reasoning, critical thinking and problem solving in the provision, management and evaluation of clinical work.
- 3.1.2 Manages self and, where appropriate, assists others to ensure effective workload prioritization and time management.
- 3.1.3 Provides feedback, offers suggestions for change and deals effectively with the impact of change on own clinical work, the team and/or the organization.



- 3.1.4 Advocates for, and contributes to, the creation and maintenance of a positive working environment and team working.
- 3.1.5 Participates in the mentorship and coaching of others, where appropriate, maximizing the effectiveness of Pulmonary Function testing, the provision of quality healthcare and the profession.
- 3.1.6 Acts as a role model for colleagues, students and other members of the healthcare team by treating all with respect, trust and dignity.
- 3.1.7 Fosters the advancement of the profession, its autonomy and accountability.
- 3.1.8 Promotes and maintains a positive image of the profession.
- 3.1.9 Assumes leadership responsibilities as appropriate in the performance of specified duties.

3.2 Competency Standard: Quality Improvement and Safety

Ensures work practices meet professional and organizational quality and safety standards, guidelines and participates in continuous quality improvement.

Performance Criteria

- 3.2.1 Works in accordance with approved quality standards and guidelines reflecting recognized evidence-based best practice.
- 3.2.2 Seeks evidence from a wide range of credible sources to maintain, extend and evaluate the quality of Pulmonary Function Testing.
- 3.2.3 Acts immediately and appropriately in accordance with the national and/or institutional disaster plan as needed.
- 3.2.4 Implements quality assurance and risk management strategies.
- 3.2.5 Ensures a safe work environment by identifying actual and potential risks and takes timely action to meet national legislative and workplace health and safety principles.
- 3.2.6 Acknowledges own limitations in knowledge, judgment and/or skills and functions within those limitations.
- 3.2.7 Recognizes less than optimum or unsafe practice in self and others and intervenes, records and reports and acts to access or provide support for remediation of deficiencies.
- 3.2.8 Participates in ongoing quality improvement and risk management initiatives.
- 3.2.9 Adheres to and implements infection control policies and procedures.
- 3.2.10 Communicates and records safety concerns to the relevant authority and documents response.

4 DOMAIN FOUR: EDUCATION, LEARNING AND DEVELOPMENT

This Domain defines the responsibilities for the continuing professional development of the Unit, team and self.

4.1 Competency Standard: Education and Facilitation

Demonstrates a commitment to the development of other members of the health care team, as well as patients, families, the organization, community and society.

Shares and disseminates professional knowledge and research findings with others.

Performance Criteria

- 4.1.1 Acts as a resource person for others.
- 4.1.2 Contributes to the formal and informal education and professional development of students and colleagues and where appropriate coordinating learning opportunities.
- 4.1.3 Acts as an effective preceptor and/or mentor as assigned, using appropriate preparation and updating to undertake the roles.
- 4.1.4 Takes opportunity to learn together with others in order to contribute to healthcare improvement.

4.2 Competency Standard: Lifelong Learning

Assumes responsibility for own professional development through lifelong learning to ensure continued competence and performance improvement.

Performance Criteria



- 4.2.1 Undertakes regular self-assessment and reviews own work practices through reflection, peer review, competency assessment, critical examination and evaluation.
- 4.2.2 Instigates planned updating of knowledge and skills for safe, patient-centered, evidence-based practice.
- 4.2.3 Engages actively in ongoing professional development and performance improvement of self and others.
- 4.2.4 Maintains a record of learning and professional development activities and accreditation.

4.3 Competency Standard: Health Promotion and Patient Education

Provides information on maintaining and optimizing health and maximizing self-care.

Performance Criteria

- 4.3.1 Under supervision, takes part in relevant health promotion, patient education and illness prevention initiatives and contributes to their evaluation.
- 4.3.2 Applies knowledge of resources available for health promotion and health education.
- 4.3.3 Acts to empower the individual, family and community to adopt healthy lifestyles and concord with self-management of ill-health to promote wellbeing.
- 4.3.4 Provides relevant health information and patient education to individuals, families and communities to assist in achieving optimal health and rehabilitation.
- 4.3.5 Recognizes the potential for patient education and teaching for health and wellbeing within the course of work duties.
- 4.3.6 Applies knowledge of a variety of teaching and learning strategies with individuals, families and communities to effect and evaluate learning and concordance treatment and advice.

5 DOMAIN FIVE: RESEARCH AND IMPROVEMENT

This Domain articulates the requirement that the Pulmonary Function Technician should practice incorporating best available evidence to provide quality healthcare and contribute to the creation and/or Implementation of knowledge through active participation by involvement and/or leadership in research and improvement activities.

5.1 Competency Standard: Using Data and Information Systems

Uses data systems to enhance the quality of measurement, improve services to patients and advance the level of research.

Performance Criteria

- 5.1.1 Acquires the information technology skills needed to inform and provide optimum healthcare, accurately document outcomes and ensure data integrity for medical records and research opportunities.
- 5.1.2 Understands how to use technology and data to assist in the identification of problems and deficiencies that can be remediated to enable improvements in work practices, measurement and patient care.
- 5.1.3 Analyses data accurately and comprehensively, leading to appropriate interpretation of findings and the development of plans for data usage.

5.2 Competency Standard: Research Participation

Uses research, evaluation, service improvement and audit findings to enhance the quality of measurement, patient care and protect the rights of those participating.

Performance Criteria

- 5.2.1 Participates in activities that disseminate research findings such as publications, journal clubs, grand rounds and presentations.
- 5.2.2 Promotes research, evaluation, service improvement initiatives and audit, designed to improve work quality and healthcare practice and disseminate findings to colleagues, patients, families, communities and society.
- 5.2.3 Undertakes appropriate development to ensure competency to recruit, ensure informed consent is obtained, support involvement, facilitate, monitor and where appropriate advocate withdrawal of individuals participating in clinical research and evaluation.



References:

- [1] The National Board of Respiratory care <http://www.nbrc.org/cpft/pages/default.aspx>
- [2] Australian and New Zealand Society of Respiratory Science : [http://www.anzsrs.org.au; http://anzsrs.org.au/index.php/education/crfs-examination](http://www.anzsrs.org.au;http://anzsrs.org.au/index.php/education/crfs-examination)
- [3] American Association of Respiratory Care <http://www.aarc.org/>
- [4] Association for Respiratory Technology and Physiology <http://www.artp.org.uk/en/professional/artp-qualifications.cfm>
- [5] Canadian Association of Cardio-Pulmonary Technicians <http://www.cacpt.ca/index.html>
- [6] Canadian Society of Respiratory Therapists <http://www.csrt.com/welcome>



Criteria for National Registration – Pulmonary Function Technologist

Criteria	Pulmonary Function Technologist
Definition	The Pulmonary Function Technologist (also known as Respiratory Function Scientist) is an individual who holds a current, valid license, Certification or Registration issued under a national authority or board that authorizes them to practice in a Pulmonary Function Laboratory and use the title Pulmonary Function Technologist OR who meets the educational and experiential criteria outlined herein and is working in a jurisdiction where the Pulmonary Function Technologists are not registered / licensed
Practice Settings	Pulmonary Function Technologists practice in numerous settings, such as hospitals, educational institutions, clinics and private practice.
Education	<ul style="list-style-type: none"> • Bachelor's Degree in Science OR • Bachelor's Degree in Respiratory Therapy OR • Three (3) Year Diploma in Respiratory Therapy OR • Two (2) Year Associates Degree in Respiratory Therapy AND • One of the following credentials: <ul style="list-style-type: none"> – CPFT Certified Pulmonary Function Technologist (NBRC USA) – RPFT Registered Pulmonary function technologist (NBRC USA) – RCPT Registered Cardio Pulmonary Technologist (Canada) – CRFS Certified Pulmonary Function Scientist (Australia/New Zealand) – ARTP (Part 2 - Practitioner) (UK)
Scope of Practice	<ul style="list-style-type: none"> • Performs pulmonary diagnostic tests which are usually part of the Pulmonary Medicine, Anesthetics or Allied Health Department. • Performs routine and complex pulmonary function tests which may include but is not limited to: <ul style="list-style-type: none"> – Pulmonary Function Studies – Arterial Puncture and Blood Gas Analysis – Pulse Oximetry – Bronchodilator Administration for diagnostic purposes only (Pre/Post Pulmonary Function Studies) – Bronchoscopy Assistance – Metabolic Testing – Patient Education related to Pulmonary Function Testing • Performs other pulmonary tests such as: Spirometry, Lung Volume Determination, DLCO, Bronchial Provocation, Impulse or Forced Oscillometry, Pulse Oximetry, Skin Allergy Tests, Maximal Voluntary Ventilation, Exhaled and Nasal Nitric Oxide Assessment, High Altitude Simulation Test, Arterial Blood Gas Sampling and Analysis, Six Minute Walk Test, Maximal Respiratory Pressures, Cardiopulmonary Exercise Test, Lung Clearance Index, Shunt Estimation, Airway Resistance, Infant Lung Function, Responses to Hypercapnia/Hypoxia, End Tidal CO₂, Resting Energy Expenditure and End Expiratory Gas Measurements or Expired Gas Condensate Measurement. • Aids the diagnosis and evaluation of cardiopulmonary function and associated disorders, provides therapeutic assessment, assists patient management, assessment



	<p>of allergic chest and airways diseases and the care of patients with deficiencies and abnormalities which affect cardiopulmonary function.</p> <ul style="list-style-type: none"> • Assesses, educates and makes the most appropriate measurements across all age of patient groups with cardiopulmonary deficiencies across the care continuum. • Uses highly specialized equipment and takes the responsibility for evaluation, implementation, maintenance and on-going quality assurance of all instrumentation. • Provides education to patients of proper use of inhalers, nebulizers, and nebulizer meds. • Explains specified breathing techniques to conserve oxygen and energy. • Calibrates and maintains the pulmonary function testing equipment and supplies. • Reports and participate in troubleshooting for equipment/software maintenance. • Verifies data and sends reports to the ordering physicians. • Collaborates with physician to review pulmonary test findings.
Licensure	Candidates should have a valid license/registration certificate accompanying the required years of experience
Experience	<ul style="list-style-type: none"> • Overseas candidates: <ul style="list-style-type: none"> – Two years (2) recent experience as a Pulmonary Function technologist • For Qatari Nationals, Qatar Universities graduates, offspring of Qatari women or offspring of residents, please refer to the DHP Circular No.24/2020
Competency Validation	<ul style="list-style-type: none"> • Passing the DHP licensing examination (if applicable), unless exempted, please refer to Circular No.24/2020, and the qualifying examination policy at the following link: https://dhp.moph.gov.qa/en/Documents/Qualifying%20Examination%20Policy.pdf • Verification of the educational qualifications and relevant graduate clinical experience
Other Requirements for Evaluation & Registration	<ul style="list-style-type: none"> • (Refer to DHP requirements for license Registration/Evaluation) https://dhp.moph.gov.qa/en/Pages/HowToRegisterToPracticeInQatar.aspx
Requirements for License Renewal	<ul style="list-style-type: none"> • (Refer to DHP requirements for license Registration/Evaluation) https://dhp.moph.gov.qa/en/Pages/HowToRegisterToPracticeInQatar.aspx
<p>Note: Applicant with break from practice please see the DHP “Break from Practice Policy” at the following link: https://dhp.moph.gov.qa/en/Documents/Policy%20on%20Break%20from%20Practice.pdf</p>	



Pulmonary Function Technologist - Scope of Practice

INTRODUCTION

The Pulmonary Function Technologist (also known as Respiratory Function Scientist) Scope of Practice is based on a competency framework that comprises; **professional ethics, clinical laboratory practice, leadership and management, learning and development, and research** intrinsic to the role of the Technologist. The Scope also describes the qualifications of the Pulmonary Function technologist, professional roles and activities, and practice settings.

STATEMENT OF PURPOSE:

The purpose of this document is to define Pulmonary Function Technologists' scope of practice in Qatar to:

- (a) Describe the services offered by qualified Pulmonary Function Technologists.
- (b) Define the professional accountability, required competencies, and scope of ethical and legal practice of the Pulmonary Function Technologist in relation to patients, families, other members of the multidisciplinary team, community and society.
- (c) Serve as a reference for license regulating authorities and professionals governing healthcare.

DEFINITION OF PULMONARY FUNCTION TECHNOLOGIST:

The Pulmonary Function Technologist (also known as Respiratory Function Scientist) is an individual who holds a current, valid license, Certification or Registration issued under a national authority or board that authorizes them to practice in a Pulmonary Function Laboratory and use the title Pulmonary Function Technologist OR who meets the educational and experiential criteria outlined herein and is working in a jurisdiction where the Pulmonary Function Technologists are not registered / licensed

The Pulmonary Function is an allied health professional activity which is usually part of the Pulmonary Medicine, Anesthetics or Allied Health Department. It aids the diagnosis and evaluation of cardiopulmonary function and associated disorders, provides therapeutic assessment, assists patient management and rehabilitation, assessment of allergic chest and airways diseases and the care of patients with deficiencies and abnormalities which affect cardiopulmonary function.

The Pulmonary Function Technologist is a techno-clinical discipline, which means that the rapid pace of technological advancement, scientific discovery, and concomitant increase in medical knowledge, as well as the changing landscape of healthcare, contribute to the dynamic nature of this discipline. As Pulmonary Diagnostics evolves, it becomes necessary that additional knowledge and skills leading to expanded practice are acquired by Pulmonary Function Technologists beyond their preclinical education. Expanded practice education may take place within college programs; in baccalaureate and/or graduate degree programs; or as clinical based programs and experience. Credentialing, or recognition, for expanded practice expertise is in addition to the Pulmonary Function Technologist credential and may be at either a regional or national level. The confluence of factors described above, have led to Pulmonary Function Technologists' level of practice being adapted to meet the needs of a complex health care delivery system.

PROFESSIONAL ROLES AND ACTIVITIES:

The Pulmonary Function Technologist performs tests to assess lung function including but not limited to lung capacity, ventilation, oxygen transfer, consumption and transport, muscle strength and assessment of responses to allergens which may directly or indirectly affect patient management for all age groups and patient populations. This role requires the use of highly specialized equipment.

In addition to performing tests on patients it is essential that the Pulmonary Function Technologist takes responsibility for the evaluation, implementation, maintenance and on-going quality assurance of all instrumentation.



KNOWLEDGE CRITERIA:

The Pulmonary Function Technologist **must** demonstrate knowledge and skills of the following elements:

- The anatomy, physiology and pathophysiology of the cardiopulmonary system.
- Cardiopulmonary function, dysfunction and risk factors.
- Principles and practice of cardiopulmonary diagnostic and therapeutic tests, as well as associated risks.
- The concepts of acute and chronic illness, normality and crisis states as they relate to cardiopulmonary function.
- Medical equipment used in cardiopulmonary care, including, but not limited to, therapeutic, monitoring and diagnostic equipment.
- The principles and practice of routine and complex pulmonary function tests which may include but is not limited to:
 - Spirometry Pre/Post Bronchodilator
 - Slow vital capacity
 - Lung Volume Determination – Body Plethysmography
 - Lung Volume Determination – Inert Gas Technique (N₂ Washout, He Dilution)
 - Bronchial Provocation – Direct Challenge (e.g. Methacholine)
 - Bronchial Provocation – Indirect Challenge (e.g. Exercise, Hypertonic Saline, Mannitol, Eucapnic Hyperventilation)
 - Impulse Oscillometry
 - Pulse Oximetry
 - Skin Prick Allergy Test
 - DLCO Study
 - Maximum voluntary ventilation
 - Exhaled Nitric Oxide Assessment
 - Nasal Nitric Oxide
 - High Altitude Simulation Test (HAST)
 - Arterial Blood Gas – Arterial Sampling and Analysis
 - Six Minute Walk Test
 - Maximal Respiratory Pressures - P_I/P_E Max
 - Cardiopulmonary Exercise test
 - Infant - Lung Clearance Index
 - Lung clearance index
 - Shunt Study
 - Airway Resistance/Airway Conductance Measurement
 - Expired Gas Collection
 - Infant – Spirometry Pre / Post Bronchodilator
 - Infant - Static Lung Volume
 - End Tidal CO₂ Measurements
 - Ventilators Response to Hypoxia / Hypercapnia

SPECIALTY AREAS:

The specialty area of Pulmonary Function technologist includes, but is not limited to:

- Pulmonary Function Laboratory
- Infant/Toddler Pulmonary Function Laboratory
- Pediatric and Adult Pulmonary Outpatient Clinics
- Allergy & Immunology Laboratory
- Pulmonary Rehabilitation
- Asthma Education
- Bronchoscopy
- Laryngoscopy
- Home Care



- Patient Education (e.g. Smoking Cessation, Nicotine Dependency Specialist/Counselor, Asthma Educator)

PRACTICE LIMITATIONS:

All Diagnostic and Therapeutic services provided by the Pulmonary Technologist require Physician orders while some special procedures require direct patient supervision by a Pulmonary Physician (e.g. cardiopulmonary exercise testing in at risk patients).

The Pulmonary Function Laboratory uses detailed Policies and Procedures and a Laboratory Test Method manual that utilizes international standards and guidelines and peer-reviewed, evidence-based methodologies.

COMPETENCY FRAMEWORK

DOMAINS OF PRACTICE:

1. DOMAIN ONE: PROFESSIONAL AND ETHICAL PRACTICE

This domain defines the professional accountability and scope of ethical and legal practice of the Pulmonary Function Technologist in relation to patients, families, other members of the multidisciplinary team, hospital, community and society as a whole.

1.1. Competency Standard: Accountability

Accepts accountability for own actions, decision making and for related outcomes.

Performance Criteria:

- 1.1.1. Works within the limits of own competence and the boundaries of the Scope of Practice.
- 1.1.2. Identifies opportunities for advocacy, health promotion and disease prevention.
- 1.1.3. Provides care without discrimination on any basis, with respect for the rights and dignity of all individuals.
- 1.1.4. Encourages and promotes appropriate stewardship of resources.
- 1.1.5. Avoids any activity that creates a conflict of interest or violates any laws and regulations.
- 1.1.6. Promotes the growth of the profession and presents a positive image of Pulmonary Diagnostics.

1.2. Competency Standard: Ethical Practice

Demonstrates integrity, accountability, honors the rights and dignity of all individuals and pursues a quest for excellence in all professional activities that serve the best interests of the patient, colleagues, hospital, society and profession.

Performance Criteria

- 1.2.1. Engages in ethical decision-making with respect to own professional responsibilities or where ethical issues affect healthcare delivery or clinical decision-making.
- 1.2.2. Acts as a patient advocate protecting the person's rights in accordance with the law and organization specific terms and conditions.
- 1.2.3. Maintains patient confidentiality and makes every reasonable effort to ensure the security of written verbal and electronic patient information.
- 1.2.4. Respects the patients' right to be fully informed (including children and young people and their parents), establishing a context for self-determination, assent (children) and informed consent.
- 1.2.5. Acts sensitively and fairly giving due consideration to diversity, including cultural and religious beliefs, race, age, gender, physical and mental state and any other relevant factors.
- 1.2.6. Questions when appropriate, healthcare practice where the safety of others is at risk and where the quality of care warrants improvement; acts where the safety of care is compromised and where necessary reports others who may be risking patient safety.
- 1.2.7. Demonstrates professional integrity and ethical conduct in matters where a conflict of interest could be construed, i.e. when advising on the use of products or services as per organizational approved policy and codes of professional conduct and ethics for Pulmonary Function Technologists.



1.3. Competency Standard: Legal Practice

Functions at all times in accordance with legislative, regulatory and policy guidelines relevant to Pulmonary Function Technologists

Performance Criteria

- 1.3.1. Practices in accordance with agreed policies and procedures that guide pulmonary function testing.
- 1.3.2. Practices in accordance with relevant laws and regulations that govern pulmonary function testing.
- 1.3.3. Maintains valid licensure to practice in Qatar
- 1.3.4. Recognizes and acts upon breaches of laws and regulations relating to the professional role and/or professional Code of Conduct and Ethics for Pulmonary Function Technologists.

2. DOMAIN TWO: CLINICAL LABORATORY PRACTICE

As a healthcare profession, Pulmonary Diagnostics is practiced under medical direction as part of the health care continuum. Critical thinking, patient/environment assessment skills and evidence-based standards and guidelines enable the Pulmonary Function Technologist to provide appropriate and effective diagnostic testing and therapeutic interventions.

2.1. Competency Standard: Core Skills - Essential Functions

Performance Criteria

- 2.1.1. Prepares and calibrates all equipment and instrumentation required to provide comprehensive Pulmonary Function Testing (as listed under knowledge criteria)
- 2.1.2. Contributes to formal Quality Assurance program for all instrumentation used for patient assessment and diagnosis.
- 2.1.3. Administers relevant pharmaceuticals for challenge testing and therapies, including but not limited to: Bronchial Provocation agents and Bronchodilators administered via nebulizer, dosimeter or metered dose inhaler.
- 2.1.4. Administers subcutaneous allergens and treatments, including but not limited to: antihistamines, cortisone and adrenaline as an anaphylactic rescue treatment.
- 2.1.5. Ensures the accuracy of data entry and keeps record for inclusion in test reports and patient medical records, including relevant patient history, referral information and observations relevant to the patient record, reporting physician, and laboratory record and hospital administration.
- 2.1.6. Follows hospital and laboratory policies and procedures for cleaning, maintenance, and infection control and quality assurance.
- 2.1.7. Involves in public awareness programs and patient education as required by the hospital and Supreme Council of Health in Qatar.
- 2.1.8. Provides support for orientation of new employees including acting a preceptor as required, involvement in education and training programs of the department, hospital and relevant universities providing medical and allied health training in the state of Qatar.
- 2.1.9. Involves directly or indirectly in research conducted at a unit, departmental or hospital level.

2.2. Competency Standard: Provision of Care

Provides patient care during Pulmonary Function tests involves but is not limited to:

Performance Criteria

- 2.2.1. Provides service that is safe, appropriate, accurate and timely for the patient and the requesting physician.
- 2.2.2. Provides Pulmonary Diagnostics services which meet the needs of the patient and the requesting physician in the management of disease or aiding diagnosis.
- 2.2.3. Observes and monitors patient's signs and symptoms, general behavior and physical response to Pulmonary Function Tests.
- 2.2.4. Determines and takes action when signs, symptoms, reactions, behavior and general response exhibit abnormal characteristics or undesirable effects.



- 2.2.5. Takes appropriate action or intervention when abnormalities are present in reports, referrals or test methods to ensure patient safety.
- 2.2.6. Implements and documents of written or verbal orders for Pulmonary Function tests.

2.3. Competency Standard: Patient Centered Care

The Pulmonary Function Technologist collects and interprets information, makes appropriate clinical decisions and carries out diagnostic and relevant therapeutic interventions under medical supervision.

Performance Criteria

- 2.3.1. Treats patients and their families with care, respect and professionalism.
- 2.3.2. Provides patients and their families with clear and accurate information.
- 2.3.3. Evaluates the needs and circumstances of patients and their families for optimal compliance with the rigorous requirements for quality Pulmonary Function Test results.
- 2.3.4. Performs and evaluates the quality of diagnostic procedures that include, but are not limited to: Pulmonary Function Studies, relevant allergy testing and immunology, arterial blood gas sampling and analysis and cardiopulmonary exercise testing.
- 2.3.5. Makes recommendations regarding the appropriateness of requested diagnostic tests, recommends modifications where indicated to ensure the patient receives appropriate evidence-based care.
- 2.3.6. Collaborates with the multidisciplinary healthcare team to ensure patient centered management and optimal treatment by providing the timeliest and effective diagnostic procedures outlined in this Scope of Practice.
- 2.3.7. Educates and informs the patient and family members / other caregivers as to the requirements of testing procedures and the likely patient experience.
- 2.3.8. Adheres to universal precautions.
- 2.3.9. Remains competent in Basic Life Support (BLS)
- 2.3.10. Applies a practical knowledge of the fundamental biomedical and technological sciences including anatomy, physiology, biochemistry, pharmacology, microbiology, pathophysiology, instrumentation and biostatistics to provide high quality and patient appropriate diagnostic testing.

2.4. Competency Standard: Evidence-Based Practice

Integrates evidence and research findings into practice and the development of new methodologies

Performance Criteria

- 2.4.1. Utilizes current evidence-based knowledge, including research findings, to improve the breadth and quality of diagnostic tests available.
- 2.4.2. Incorporates credible, critically appraised and peer-reviewed evidence into laboratory practice and testing.
- 2.4.3. Participates in the formulation of evidence-based practice using the best available credible research and/or national and international professional consensus, guidance, standards and audit.
- 2.4.4. Disseminates personal or third-party research, practice development, improved testing methodologies, new standards and audit findings with colleagues and peers in order to enhance Pulmonary Function Testing and improve patient care.
- 2.4.5. Critically evaluates research, audit and laboratory practice that underpin the Pulmonary Function Laboratory and questions existing practice and knowledge.
- 2.4.6. Promotes dissemination, use, monitoring and review of professional standards and best practice guidelines.

2.5. Competency Standard: Communication and Teamwork

Uses communication skills to ensure that other members of the health care team, the patient and their family are and remain fully informed.

Performance Criteria

- 2.5.1. Establishes relationships of trust, respect, honesty and empathy.



- 2.5.2. Gathers information about disease, but also about a patient's beliefs, concerns, expectations and illness experience.
- 2.5.3. Seeks out and synthesizes relevant information from other sources, such as patient's family, caregivers and other professionals.
- 2.5.4. Delivers information to patients and their families, colleagues and other members of the healthcare team, in a way that is understandable and that encourages discussion and participation in decision making.
- 2.5.5. Demonstrates cultural competence across all patient groups.
- 2.5.6. Communicates consistently, clearly, relevantly, and comprehensive information in verbal, written and electronic forms in a timely manner to ensure the delivery of safe, competent and ethical care.
- 2.5.7. Participates in building consensus and or resolving conflict in the context of patient care.
- 2.5.8. Engages in teamwork and team-building processes.
- 2.5.9. Works effectively with other professionals to prevent, negotiate and resolve inter-professional conflict.

3. DOMAIN THREE: LEADERSHIP AND MANAGEMENT

Exhibits leadership qualities required for the provision of safe and effective Pulmonary Diagnostic testing. This Domain includes concordance with the healthcare organizations Code of Behaviors as the operating framework as well as self-management, responsibility and contribution to team performance.

3.1. Competency Standard: Leadership

Exhibits leadership qualities and manages Pulmonary Diagnostics safely, efficiently and ethically.

Performance Criteria

- 3.1.1. Applies clinical reasoning, critical thinking and problem solving in the provision, management and evaluation of clinical work.
- 3.1.2. Manages self and, where appropriate, assists others to ensure effective workload prioritization and time management.
- 3.1.3. Provides feedback, offers suggestions for change and deals effectively with the impact of change on own clinical work, the team and/or the organization.
- 3.1.4. Advocates for, and contributes to, the creation and maintenance of a positive working environment and team working.
- 3.1.5. Participates in the mentorship and coaching of others maximizing the effectiveness of Pulmonary Function testing, the provision of quality healthcare and the profession.
- 3.1.6. Acts as a role model for colleagues, students and other members of the healthcare team by treating all with respect, trust and dignity.
- 3.1.7. Fosters the advancement of the profession, its autonomy and accountability.
- 3.1.8. Promotes and maintains a positive image of the profession.
- 3.1.9. Assumes leadership responsibilities as appropriate in the performance of duties.

3.2. Competency Standard: Quality Improvement and Safety

Ensures work practices meet professional and organizational quality and safety standards, guidelines and participates in continuous quality improvement.

Performance Criteria

- 3.2.1. Works in accordance with approved quality standards and guidelines reflecting recognized evidence-based best practice.
- 3.2.2. Seeks evidence from a wide range of credible sources to maintain, extend and evaluate the quality of Pulmonary Function Testing.
- 3.2.3. Acts immediately and appropriately in accordance with the national and/or institutional disaster plan as needed.
- 3.2.4. Implements quality assurance and risk management strategies.
- 3.2.5. Ensures a safe work environment by identifying actual and potential risks and takes timely action to meet national legislative and workplace health and safety principles.



- 3.2.6. Acknowledges own limitations in knowledge, judgment and/or skills and functions within those limitations.
- 3.2.7. Recognizes less than optimum or unsafe practice in self and others and intervenes, records and reports and acts to access or provide support for remediation of deficiencies.
- 3.2.8. Participates in ongoing quality improvement and risk management initiatives.
- 3.2.9. Adheres to and implements infection control policies and procedures.
- 3.2.10. Communicates and records safety concerns to the relevant authority and documents response.

3.3. Competency Standard: Delegation and Supervision

Delegates and provides supervision to team members according to their competence and scope of practice

- 3.3.1. Delegates to others, activities commensurate with their abilities and scope of practice.
- 3.3.2. Uses a range of supportive strategies when supervising work delegated to others.
- 3.3.3. Maintains accountability and responsibility when delegating work to others.

4. DOMAIN FOUR: EDUCATION, LEARNING AND DEVELOPMENT

This Domain defines the responsibilities for the continuing professional development of the Unit, team and self.

4.1. Competency Standard: Education and Facilitation

Demonstrates a commitment to the development of other members of the health care team, as well as patients, families, the organization, community and society. Shares and disseminates professional knowledge and research findings with others.

Performance Criteria

- 4.1.1. Acts as a resource person for others.
- 4.1.2. Contributes to the formal and informal education and professional development of students and colleagues and where appropriate coordinates learning opportunities.
- 4.1.3. Acts as an effective preceptor and/or mentor as assigned, using appropriate preparation and updating to undertake the roles.
- 4.1.4. Takes opportunities to learn together with others in order to contribute to healthcare improvement.

4.2. Competency Standard: Lifelong Learning

Assumes responsibility for own professional development through lifelong learning to ensure continued competence and performance improvement.

Performance Criteria

- 4.2.1. Undertakes regular self-assessment and reviews own work practices through reflection, peer review, competency assessment, critical examination and evaluation.
- 4.2.2. Instigates planned updating of knowledge and skills for safe, patient-centered, evidence-based practice.
- 4.2.3. Actively engages in ongoing professional development and performance improvement of self and others.
- 4.2.4. Maintains a record of learning and professional development activities and accreditation.

4.3. Competency Standard: Health Promotion and Patient Education

Will enable and provide information on maintaining and optimizing health and maximizing self-care.

- 4.3.1. Takes part in relevant health promotion, patient education and illness prevention initiatives and contributes to their evaluation.
- 4.3.2. Applies knowledge of resources available for health promotion and health education.
- 4.3.3. Acts to empower the individual, family and community to adopt healthy lifestyles and concord with self-management of ill-health to promote wellbeing.
- 4.3.4. Provides relevant health information and patient education to individuals, families and communities to assist in achieving optimal health and rehabilitation.
- 4.3.5. Recognizes the potential for patient education and teaching for health and wellbeing within the course of work duties.



- 4.3.6. Applies knowledge of a variety of teaching and learning strategies with individuals, families and communities to effect and evaluate learning and concordance treatment and advice.

5. DOMAIN FIVE: RESEARCH AND IMPROVEMENT

This Domain articulates the requirement that the Pulmonary Function Technologist should practice incorporating best available evidence to provide quality healthcare and contribute to the creation and/or implementation of knowledge through active participation by involvement and/or leadership in research and improvement activities.

5.1. Competency Standard: Using Data and Information Systems

Uses data systems to enhance the quality of measurement, improve services to patients and advance the level of research.

Performance Criteria

- 5.1.1. Acquires the information technology skills needed to inform and provide optimum healthcare, accurately document outcomes and ensure data integrity for medical records and research opportunities.
- 5.1.2. Understands how to use technology and data to assist in the identification of problems and deficiencies that can be remediated to enable improvements in work practices, measurement and patient care.
- 5.1.3. Analyses data accurately and comprehensively, leading to appropriate interpretation of findings and the development of plans for data usage.

5.2. Competency Standard: Research Participation

Uses research, evaluation, service improvement and audit findings to enhance the quality of measurement, patient care and protect the rights of those participating.

Performance Criteria

- 5.2.1. Participates in activities that disseminate research findings such as publications, journal clubs, grand rounds and presentations.
- 5.2.2. Promotes research, evaluation, service improvement initiatives and audit, designed to improve work quality and healthcare practice and disseminate findings to colleagues, patients, families, communities and society.
- 5.2.3. Undertakes appropriate development to ensure competency to recruit, ensure informed consent is obtained, support involvement, facilitate, monitor and where appropriate advocate withdrawal of individuals participating in clinical research and evaluation.

References:

- [1] The National Board of Respiratory care <http://www.nbrc.org/cpft/pages/default.aspx>
- [2] Australian and New Zealand Society of Respiratory Science <http://www.anzsrs.org.au>;
<http://anzsrs.org.au/index.php/education/crfs-examination>
- [3] American Association of Respiratory Care <http://www.aarc.org/>
- [4] Association for Respiratory Technology and Physiology <http://www.artp.org.uk/en/professional/artp-qualifications.cfm>
- [5] Canadian Association of Cardio-Pulmonary Technologists <http://www.cacpt.ca/index.html>
- [6] Canadian Society of Respiratory Therapists <http://www.csrt.com/welcome>