الهيئة السعودية للتخصصات الصحية
Saudi Commission for Health Specialties

PEDIATRIC RESPIRATORY MEDICINE

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بسم الله الرحمن الرحيم

PREFACE

- The primary goal of this document is to enhance the training experience of postgraduate trainees by outlining the learning objectives necessary to become independent and competent pediatric respirologist.
- This curriculum may contain sections that reflect training regulations based on the latest policies of the Saudi Commission for Health Specialties (SCFHS) at the time of its preparation. However, official regulations should be referenced from the SCFHS "General Bylaws" and "Executive Policies", available on the SCFHS official website. In the event of any discrepancies, the most recent version of the bylaws and executive policies will take precedence.
- As this curriculum is subject to periodic refinements, please refer to the latest edition available online at www.scfhs.org.sa.

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II. COPYRIGHT STATEMENT

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III. FORWARD

The curriculum development team of the Pediatric Respiratory Medicine Saudi Fellowship Program gratefully acknowledges the valuable contributions and feedback provided by the members of the specialty's scientific committee in shaping this program. We extend our special appreciation to all individuals who played a pivotal role in the completion of this booklet, especially the Curriculum Group, Curriculum Specialists, and the Scientific Council. We also acknowledge that the CanMEDS Framework is copyrighted by the Royal College of Physicians and Surgeons of Canada, and that many of the competency descriptions included herein have been adapted from their published resources.

IV. TABLE OF CONTENTS

V. INTRODUCTION

Pediatric Respiratory Medicine, also known as pediatric pulmonology, is an established subspecialty of Pediatrics that focuses on the health, prevention, and management of respiratory diseases in children. The term “respiratory medicine” is often preferred for its comprehensive scope, encompassing a wider range of respiratory system aspects compared with “pulmonology”. From fetal life through the neonatal period, infancy, early childhood, and adolescence, this field is uniquely positioned to address the evolving anatomy and physiology of the developing child. Respiratory diseases remain a leading cause of morbidity and mortality worldwide, with infants and young children being particularly vulnerable. The spectrum of respiratory disorders ranges from infections to chronic non-communicable diseases. Congenital and developmental respiratory conditions are a hallmark of pediatric respiratory medicine. Pneumonia remains a leading yet preventable cause of childhood mortality. Conversely, asthma is the most common non-communicable disease in children. Tobacco smoke exposure and air pollution are major risk factors for pediatric respiratory illnesses. The impact of respiratory illnesses extend beyond childhood, as early-life infections and environmental exposures can lead to chronic health issues in adulthood. Thus, childhood immunization and other preventive measures play a crucial role in reducing the burden of respiratory conditions–not only in children, but across the entire population.

The Saudi Fellowship in pediatric respiratory medicine is a two-year training program designed to graduate competent subspecialist physicians who are capable of promoting and protecting the respiratory health of children, as well as managing a wide range of related disorders.

1. Context of Practice

In the early 1990s, there were fewer than five pediatric pulmonologists in Saudi Arabia. Despite this, the first National Asthma Guidelines were published in 1994 (Ministry of Health; 1994) (2). During the same period, educational initiatives such as the combined Pediatric Pulmonology and Allergy Club and a locally launched pediatric pulmonary fellowship program were introduced.

Over the past three decades, the field of pediatric pulmonology in Saudi Arabia has shown steady progress. Today, there are more than 50 pediatric pulmonologists nationwide. Specialized services, including cystic fibrosis care, pediatric sleep medicine, and flexible bronchoscopy, have been established across multiple institutions. The Saudi Commission for Health Specialties (SCFHS) approved the Pediatric Pulmonology Fellowship, later renamed the Pediatric Respiratory Medicine Fellowship, in January 2010. The first cohort began training in January 2011 and graduated in December 2012

Of course, more pediatric pulmonologists are needed to meet the demands of our growing population. Saudi Arabia has a higher proportion of youth compared with the United States (U.S.) and Europe. In the Saudi Arabia, 30% of the population is between 0 and 14 years old, compared with 15-20% in Western Europe and North America. Additionally, the childhood obesity epidemic is expected to increase the prevalence of respiratory disorders such as asthma and sleep-disordered breathing. The growing complexity of pediatric care, improved survival of children with chronic illnesses and prematurity, and advances in treatment (e.g., new therapies for cystic fibrosis and asthma) will further increase the demand for pediatric pulmonologists.

In 2015, the US had a total of 1,203 board certified pediatric pulmonologists, or approximately one for every 100,000 children (3). This ratio is substantially lower in rural areas (4). In Saudi Arabia, with an estimated 8.5 million children under the age of 14 (General Authority for Statistics, KSA, 2019), there is approximately one pediatric pulmonologist per 155,000 children. While major cities like Riyadh may have adequate pediatric pulmonology services, other regions remain underserved. This shortage is further compounded by workforce attrition owing to retirement, and reductions in clinical availability caused by time allocated to administrative duties, teaching, and research (5).

The pediatric pulmonary field is facing increasing demands, including the need for newer services such as preschool and infant pulmonary function testing, expanded multicenter collaborative and basic science research, and specialized centers for diagnosing conditions like Childhood Interstitial Lung Disease and performing lung transplants. Strengthening and expanding pediatric pulmonary fellowship programs is essential, especially as international scholarships become less available. A common challenge is attracting graduates of pediatric residency programs to pursue pediatric pulmonology fellowships. In the U.S., pediatric residents are less likely than internal medicine residents to pursue additional subspecialty training (4).

2. Goal and Responsibility of curriculum implementation

The goal of this curriculum is to guide trainees toward competence in their specialty. Achieving this will require significant effort and coordination from all stakeholders involved in postgraduate training. This curriculum follows competency-based education model, using CanMEDs as the guiding framework. As adult learners, trainees are expected to take an active and engaged role by thoroughly understanding learning objectives, practicing self-directed learning and problem solving, being open to feedback, applying knowledge through reflective practice, and prioritizing their well-being while seeking support when needed. The program director plays a vital role in ensuring the successful implementation of this curriculum. Members of the training committee, particularly the program administrator and chief of fellows, also have a significant impact on the program's execution. Trainees should be empowered to share responsibility for implementing the curriculum. The Saudi Commission for Health Specialties (SCFHS) will apply best practices in training governance to ensure high-quality education. Training supervision will be maintained through existing SCFHS-endorsed structures, including the **Institutional Training Committee (ITC)**, chaired by the **Designated Institutional Official (DIO)**, and the **Pediatric Training Committee (PTC)**, chaired by the program director, with active trainee representation. The **Scientific Committee of Pediatric Respiratory Medicine** will be responsible for regularly updating the curriculum to align with internationally recognized standards in postgraduate specialty training.

3. What is new in this edition?

The following updates have been incorporated into this new edition of curriculum:

1. The training framework applies a block system (52 weeks/year).
2. Rotation modifications: the Pediatric Intensive Care Unit (PICU) rotation is reduced from 2 months to one block in the first year of fellowship (F1); a general respiratory block is added in the first year, and one ENT block is added as mandatory rotation in the second year of fellowship (F2).
3. The promotion criteria.
4. Formative assessment: implementation of workplace-based tools.
5. Objectives for each rotation.
6. Scientific activities.

7. Blueprint mapping for teaching and assessment.
8. Suggested references.

VI. ABBREVIATIONS USED IN THIS DOCUMENT

Abbreviation	Definition
A	Attitude (Learning Domain)
AAP	American Academy of Pediatrics
CBD	Case-Based Discussion report
CBE	Competency-Based Education
DOPS	Direct Observation of Procedural Skills report
EA	Educational Activity
EMR	Electronic Medical Record
F1	First year of fellowship
F1	Second year of fellowship
ITER	In-Training Evaluation Report
K	Knowledge (Learning Domain)
Mini-CEX	Mini-Clinical Experience report
M&M	Morbidity and Mortality (Rounds)
MCQ	Multiple Choice Question
OSCE	Objective Structured Clinical Examination
S	Skills (Learning Domain)
SCFHS	Saudi Commission for Health Specialties
SOE	Structured Oral Examination

Abbreviation	Definition
WBA	Workplace-Based Assessment

VII. PROGRAM ENTRY REQUIREMENTS

Please refer to the updated executive policy of SCFHS on admission and registration.
Website: www.scfhs.org.sa

VIII. LEARNING AND COMPETENCIES

1. Introduction to Learning Outcomes and Competency-Based Education

Training should be guided by well-defined learning objectives, driven by targeted learning outcomes that address the specific needs of the specialty. Learning outcomes are intended to reflect the professional competencies and tasks that trainees are expected to be entrusted with upon graduation. This approach ensures that graduates are prepared to meet the demands of the healthcare system and provide appropriate patient care within their specialty. Competency-based education (CBE) is an adult-learning approach focused on achieving clearly defined, detailed, and appropriately paced learning objectives derived from complex professional competencies.

Professional competencies in healthcare are often complex, encompassing a blend of knowledge, skills, and attitudes. CBE is designed to transform the traditional approach to postgraduate training. While time is a valuable resource, it should not be used as a proxy for competence, for example, the duration spent in a specific rotation does not necessarily indicate the achievement of competency. CBE emphasizes the importance of informed judgment in evaluating a trainee's progress, relying on staged and formative assessments based on multiple workplace-based observations. Several CBE models have been developed for postgraduate healthcare education, including CanMEDs by the Royal College of Physician and Surgeon of Canada (RCPSC), the CBME-Competency model by the Accreditation Council for Graduate Medical Education (ACGME), and Tomorrow's Doctors in the UK, among others) (6,7).

The following concepts support the implementation of CBE in this curriculum:

- **Competency:** Competency is a cognitive construct that assesses the potential to perform effectively in various situations based on professional standards. Professional roles (e.g., expert, advocate, communicator, leader, scholar, collaborator, and professional) are used to define competency-role, making it suitable for learning and assessment.

- **Milestones:** Milestones represent stages along the developmental continuum of competency. Throughout training, learners progress from novice (supervised) to master (unsupervised) practitioners. This progression does not diminish the responsibility of supervisory or regulatory bodies in preventing malpractice by independent practitioners. Milestones enhance the learning process by aligning training and assessment with the learner's developmental level (junior vs. senior).
- **Learning Domains:** Where possible, learning outcomes should be annotated with the relevant domain: K (Knowledge), S (Skills), and A (Attitude). A single outcome may include multiple domain annotation.
- **Content-area Categorization:** Learning outcomes should be grouped under broad content areas relevant to professional practice. Examples include diagnostic vs. therapeutic, simple vs. complex, and urgent vs. chronic.

Trainees are expected to progress from novice to mastery in a defined set of professional competencies. The SCFHS has adopted the CanMEDs framework to articulate these competencies. This curriculum applies the principles of competency-based medical education as outlined in CanMEDS. The following is a general overview of the competencies, adapted from *CanMEDS 2015 Physician Competency Framework* (Frank JR, Snell L, Sherbino J, editors. Ottawa: Royal College of Physicians and Surgeons of Canada; 2015) (8,9).

2. Program Durations

The Saudi Fellowship in Pediatric Respiratory Medicine is a two-year program consisting of two levels: junior in the first year (F1) and senior in the final year (F2). This structure has been approved by the Executive Council of Training and Education.

3. Program Rotations

Clinical training during the two-year fellowship includes rotations structured as depicted in Table 1 below.

Table 1. The structure of a two-year fellowship

Training year	Mandatory core rotations*			Elective rotations**	
	Rotation name	Duration (24 blocks)	Setting	Rotation name	Duration

F1	• General respiratory • PICU • PFT • Vacation	10 blocks 1 block 1 block 1 block	• Hospital-based	none	none
F2	• General respiratory • Sleep medicine • Adult respiratory • ENT • Allergy and immunology • Vacation	6 blocks 1 block 1 block 1 block 1 block 1 block	• Hospital-based	• Pediatric Respiratory • Pediatric Radiology • Pediatric Cardiology • Research • Histopathology/Physiology • Lung Transplant • Interventional Bronchoscopy • Clinical Nutrition • Home Care • Pediatric Emergency Medicine • Interventional Radiology • Pediatric Psychiatry	2 rotations (1 block each)

***Mandatory core rotation** are essential rotations that form the core of the program and must be completed by all fellows.

****Elective rotation** is a specialty-related rotations defined by the scientific council or committee. Trainees are required to complete a selection of these as part of their training.

- Each rotation block is **four weeks** long.
- **Vacations:** In accordance with SCFHS regulations and the training hospital's policy, and with approval from the program director, fellows are granted four weeks of annual leave, in addition to one Eid holiday and public holidays.

4. Suggested elective rotations

Each fellow is allowed two elective training blocks, which may be chosen from the following areas:

1. **Pediatric Radiology**: Focuses on correlating clinical knowledge with image interpretation.
2. **Pediatric Interventional Radiology**: A rapidly expanding and highly valuable field, particularly for managing complicated pneumonia or refractory air leak–skills increasingly important for pediatric pulmonologists.
3. **Lung Histopathology**: Highly recommended to enhance understanding of pulmonary disease at the tissue level.

4. **Research**: Although progress has been made, many fellows continue to face major challenges in basic research knowledge.
5. **Pediatric Cardiology**: Recommended to provide exposure to common cardiac conditions that affect the lungs, such as those encountered in pulmonary hypertension. Experience with cardiac catheterization is particularly relevant.
6. **Pediatric Dietitians** As pulmonology becomes more complex, collaboration with specialized dietitians, especially those experienced in cystic fibrosis, is both helpful and informative.
7. **Interventional Bronchoscopy**: Often conducted by ENT departments, this includes the use of rigid or flexible bronchoscopes for procedures such as foreign body removal.
8. **Child and Adolescent Psychiatry**: To understand the psychological and social impact of chronic illnesses on children and their families.
9. **Basic Physiology**: Conducted in a university setting with expert faculty in respiratory physiology, this rotation strengthens foundational knowledge essential for clinical practice.
10. **General Pediatric Respiratory Rotation**: May be completed locally (within the same center), at another accredited center, or abroad (e.g., in the U.S., Canada, United Kingdom (UK), or Ireland). Provides exposure to a wider variety of cases, clinical systems, and expert perspectives.
11. **Transplant Center**: Involves exposure to lung, bone marrow, and solid organ transplant services to understand post-transplant respiratory care and complications.
12. **Home Care**: With the growing field of sleep medicine and the increasing use of non-invasive ventilation.
13. **Pediatric Emergency Medicine**: Provides experience with acute and critical pulmonary cases in emergency setting.

5. Mapping of learning objectives and competency roles to program rotations

First year (F1) rotations

1. General Respiratory Medicine Rotation

Introduction

This rotation will equip fellows with essential knowledge in pediatric respiratory medicine and safety, along with a comprehensive understanding of international guidelines and evidence-based practices for safe and effective clinical application

Learning objectives

By the end of this rotation, fellows will be able to:

1. Gather essential and accurate patient information. [K]
2. Organize and prioritize responsibilities to deliver safe, effective, and efficient care. [K]
3. Ensure seamless care transitions through effective transfer of care. [K]
4. Conduct patients and family interviews with attention to behavioral, psychosocial, environmental, and family-related factors influencing disease. [K]
5. Perform complete and accurate physical examinations. [S, A]
6. Make diagnostic and therapeutirc decisions that reflect sound clinical judgment. [S, A]
7. Develop and implement management plans in consultation with a supervisor. [S, A]
8. Prescribe pulmonary-related medical interventions. [S, A]
9. Perform pulmonary-related procedures under appropriate supervision. [S, A]
10. Counsel patients and families under supervision. [A]
11. Deliver effective health maintenance and anticipatory guidance. [A]
12. Use information technology to enhance patient care (aligned with Practice-based Learning and Improvement). [K]
13. Serve as an appropriate role model in clinical settings. [S, A]
14. Demonstrate sufficient knowledge of basic and clinically relevant sciences in pediatric respiratory medicine. [K]

15. Critically appraise and apply current medical evidence to patient care. [K]
16. Demonstrate basic knowledge of flexible bronchoscopy, including pre- and post-procedure care, related indications, and preparation. [K]
17. Understand the physiology, pathophysiology, etiology, development, clinical course, and sequelae of major respiratory disorders. [K]

Communicator

- Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds. [K, A]
- Demonstrate insight into emotional dynamics and human responses, enabling the development and management of appropriate interpersonal interactions. [S, A]
- Communicate clearly and respectfully with physicians, healthcare professionals, team members, and relevant health-related agencies. [S, A]
- Collaborate effectively as part of a healthcare team or other professional group. [A]
- Maintain comprehensive, timely, and legible medical records, when applicable. [S, A]
- Provide effective teaching to students, pediatric residents, colleagues, and other healthcare professionals. [K, S, A]

Collaborator

- Collaborate with others to assess, plan, deliver, and coordinate patient care. [A]
- Serve in a consultative role to other physicians and healthcare professionals. [A]
- Works effectively within a multidisciplinary team, including physicians, nurses, respiratory staff, and other healthcare professionals. [A]

Leader

- Serve in administrative and leadership roles as appropriate. [A]
- Utilize healthcare resources appropriately and efficiently. [A]
- Demonstrate effective time and task management skills. [S, A]
- Coordinate team roles and dynamics effectively, including the organization of responsibilities among residents, interns, and students. [S, A]

Scholar

- Recognize and reflect on learning and practice-related issues. [S, A]
- Attends and actively contributes to rounds, seminars, grand rounds, and conferences.[S]
- Design and deliver effective educational activities. [A]
- Engage in ongoing self-evaluation and continuous performance improvement. [A]

Health Advocate

- Advocate on behalf of patients at both individual and population levels. [A]
- Identify socioeconomical, environmental, and biological factors that influence patient adherence and overall health. [S, A]
- Respond to community needs by advocating with them for system-level change in a socially accountable manner "volunteering". [A]
- Promote patient safety. [A]

Professional

- Adhere to team ethics related to confidentiality, resource allocation, and professionalism. [S, A]
- Deliver the highest quality of care with integrity and compassion. [S, A]
- Recognize personal limitations and seek guidance or consultations when needed. [S, A]
- Uphold the highest standards of clinical excellence and ethical conduct. [S, A]
- Arrive on time for Morning Report and maintain appropriate professional attire for patient care. When requested, fellows should model and teach clinical practices to students or pediatric residents. [S, A]

Duration

The first year consists of **10 blocks**, totaling 40 weeks, with each block lasting 4 weeks.

Setting

Hospital setting within an accredited facility by Saudi Commission, equipped with designated teaching and training facilities.

Assessment Tools

At end of the rotation, the attending may assess the trainee using the following tools: DOPS, CbD, mini CEX, Logbook, and scientific activities.

(A minimum of one CbD and one mini CEX, or one DOPs, or a topic presentation, along with a respected input in the logbook, is required for successful completion of the rotation)

2. Pediatric Intensive Care Rotation

Introduction

This rotation will provide the pediatric respiratory fellow with core concepts, roles, responsibilities, and safety principles in pediatric intensive care, supported by a comprehensive understanding of international guidelines and evidence-based practices for their safe and effective use.

Learning objectives

At the end of **one-month** Pediatric Intensive Care Unit rotation, pediatric pulmonary fellows are expected to:

- Define respiratory failure and describe its various causes. [K]
- Distinguish between severe obstructive and restrictive lung diseases, outlining key differentiating measures. [K]
- Understand the role of ventilation in various physiological processes, including acid-base balance, ventilation-perfusion matching, gas exchange, and pulmonary blood flow. [S, K]
- Describe basic mechanical ventilation modes, both invasive and non-invasive. [S, K]
- Comprehend lung-protective ventilation strategies and their physiological basis. [S, K]
- Identify potential complications associate with invasive and non-invasive ventilation. [K]
- Demonstrate knowledge of the physiology, pathophysiology, diagnosis, and management of common pediatric intensive care conditions, including status asthmaticus, acute respiratory distress syndrome (ARDS), pneumothorax, pulmonary hypertension crisis, and severe diffuse alveolar hemorrhage. [S, K]

Communicator

- Communicate effectively with patients, families, and the public across diverse socioeconomic and cultural backgrounds. [K, A]
- Demonstrate insight into emotions and human responses to develop and manage interactions appropriately. [S, A]
- Communicate clearly with physicians, health professionals, team members, and health-related agencies. [S, A]
- Maintain comprehensive, timely, and accurate medical records. [S, A]
- Provides appropriate medical support across various transitional care settings. [S, A]
- Conduct and document discharge counseling promptly and accurately. [A]

Patient care

At the end of the **one-month** Pediatric Intensive Care Unit rotation, fellows are expected to be able to:

- Recognize respiratory failure and manage patients on both invasive and non-invasive mechanical ventilation, applying lung-protective strategies. [S, A]
- Implement appropriate diagnostic and management strategies for common pediatric intensive care respiratory conditions, including acute lung injury, status asthmaticus, pulmonary infections, bronchiolitis, pneumothorax, pulmonary hypertension, and pulmonary edema. [S, A]

Collaborator

- Works effectively within a multidisciplinary team including medical staff, nurses, respiratory staff, and other healthcare professionals. [A]
- Communicates efficiently with healthcare professionals, preceptors, colleagues, and caregivers. [A]
- Recognize and respect the diverse roles, responsibilities, and competencies of other health professionals in respiratory patient management. [S, A]
- Collaborate with others to assess, plan, provide, and coordinate patient care. [A]

Leader

- Serves in administration and leadership roles as appropriate. [A]
- Utilize healthcare resources appropriately and effectively. [A]
- Demonstrate effective time and task management skills. [S, A]

- Coordinate team roles and dynamics, including the organization of responsibilities among residents, interns, students. [S, A]

Scholar

- Recognize and reflect on learning and practice-related issues [S, A]
- Attend and actively contribute to rounds, seminars, grand rounds, and conferences.
- Design and deliver effective educational activities. [A]
- Engage in ongoing self-evaluation and continuous performance improvement. [A]

Health Advocate

- Advocate on behalf of patients at both individual and general population levels. [A]
- Identify socioeconomical, environmental, and biological factors that influence patient adherence, and overall health outcomes. [S, A]
- Respond to community and population needs by advocating for system-level change in a socially accountable manner (e.g., through volunteering). [A]
- Promote patient safety. [A]

Professional

- Adhere to team ethics regarding confidentiality, resource allocation, and professionalism. [S, A]
- Deliver the highest quality of care with integrity and compassion. [S, A]
- Recognize personal limitations and seek advice or consultations when appropriate. [S, A]
- Uphold the highest standards of clinical excellence and ethical conduct. [S, A]
- Arrive on time for Morning Report and maintain appropriate professional attire for patient care. When requested, fellows should model and teach clinical practices to students or pediatric residents. [S, A]

Duration

One block, 4 weeks

Setting

The rotation will take place in a hospital accredited by the Saudi Commission, equipped with designated teaching and training facilities.

Assessment Tools

At end of the rotation, the attending may assess the trainee using the following tools: DOPS, CbD, mini CEX, Logbook, and scientific activities.

(A minimum of one CbD and one mini CEX, or one DOPs, or a topic presentation, along with a respected input in the logbook, is required for successful completion of the rotation)

3. Pulmonary Function Test Laboratory Rotation

Introduction

As medical experts, physicians integrate all the CanMEDS Roles, by applying medical knowledge, clinical skills, and professional attitudes to deliver patient-centered care. This rotation will provide the pediatric respiratory fellow with core concepts, roles, responsibilities, and safety considerations related to pediatric function testing.

Learning objectives

At the end of the **four-week** rotation, the fellow should be able to:

- Spirometry: Demonstrate the ability to explain the normal range of spirometry values. Describe the flow volume loop and its changes in airway obstruction. Demonstrate how to perform spirometry in both adults and children. [S, A]
- Helium Dilution: Understand the principles and limitations of helium dilution in lung volume measurement. Demonstrate the ability to perform and calculate functional residual capacity (FRC) using helium dilution data. [S, K]
- Nitrogen Washout: Understand the principles and limitations of nitrogen washout in measuring lung volume. [K]
- Body Plethysmography: Understand the principles of pressure and volume plethysmography. Demonstrate correct test performance technique. [K]
- Respiratory Muscle Testing: Recognize and demonstrate the methods for measuring inspiratory and expiratory muscle strength, including the indications for testing. [K]

- Diffusion Capacity (DLCO): Explain the methods for measuring diffusion capacity. Understand the indications for DLCO measurement. Demonstrate the ability to calculate (DLCO) corrected for lung volumes and hemoglobin. Know the differential diagnosis of low DLCO values. [K, A, S]
- Bronchodilator Testing: Describe how bronchodilator administration assists in pulmonary function test (PFT) interpretation. Define the criteria for a positive response. [K, A, S]
- Bronchoprovocation Tests: Explain the rationale for bronchoprovocation testing. Compare different challenge types. Interpret criteria for a positive response, including the roles of PC20 and PD20. Identify potential complications and contraindications. [K, A, S]
- Exercise Testing: Distinguish between indications for assessing exercise tolerance and diagnosing exercise-induced asthma (EIA). Compare various methods for exercise tolerance testing. Define criteria for a positive response and anticipate complications or contraindications. [K]
- Infant PFTs: Identify the various techniques for performing infant PFTs. Evaluate the risks and benefits of each method. [K]
- Interpretation: Demonstrate the ability to explain the limitations of predictive equations in the interpretation of PFTs results. [K, S]

Patient Care Skills

(Including technical skills to be learned and demonstrated – must be covered and assessed)

- Spirometry: Identify the relative variability of FVC, FEV1, FEF25-75, FEF50, FEF75, PEF, and calculate each from the spirogram. Recognize how the flow-volume curve aids in spirometry interpretation. [S, K]
- Helium Dilution: Demonstrate the ability to calculate functional residual capacity (FRC) using helium dilution data. [S, K]
- Nitrogen Washout: Demonstrate the ability to calculate FRC using nitrogen washout data. [S, K]
- Body Plethysmography: Differentiate between FRC and thoracic gas volume (TGV), and describe how the method used to determine TGV affects the measured values. [S, K]
- Respiratory Muscle Testing: Demonstrate the technique for measuring inspiratory and expiratory muscle strength. [S, K]

- Diffusion Capacity: Calculate DLCO correction for lung volumes and hemoglobin levels. [S, K]
- Bronchodilator Testing: Define the criteria for a positive bronchodilator response. [K]
- Bronchoprovocation Testing: Interpret what constitutes a positive response, including the significance of PC20 and PD20. [S]
- Exercise Testing: Recognize the criteria that define a positive exercise test response. [K]
- Infant PFTs: Demonstrate the ability to interpret the various parameters measured in infant PFTs. [S, K]
- Interpretation: With supervision, demonstrate the ability to differentiate among obstructive, restrictive, intrathoracic, and extrathoracic obstructions, respiratory muscle weakness, and diffusion abnormalities. [S, K]

Communicator

- Communicate effectively with patients, families, and the public across diverse socioeconomic and cultural backgrounds. [K, A]
- Demonstrate insight into emotional dynamics and human responses, enabling the development and management of appropriate interpersonal interactions. [S, A]
- Communicate clearly and effectively with physicians, healthcare professionals, team members, and health-related agencies. [S, A]
- Maintain comprehensive, timely, and legible medical records, as applicable [S, A]
- Ensure that records are clear, accurate and appropriate. [S, A]
- Provides appropriate medical support across various transitional care settings. [S, A]
- Conduct and document discharge counseling promptly and accurately. [A]

Collaborator

- Works effectively within a team environment, including the medical team, nurses, PFT staff, and other healthcare professionals. [A]
- Communicates efficiently with healthcare professionals, preceptors, colleagues, and caregivers. [A]

- Recognizes and respects the diverse roles, responsibilities, and competencies of other health professionals when requesting different types of spirometry. [S, A]
- Manages conflicts constructively throughout the learning experience. [A]

Leader

- Serves in administrative and leadership roles, as appropriate. [A]
- Demonstrate appropriate and effective use of healthcare resources. [A]
- Exhibits effective time and task management skills. [S, A]
- Coordinates team roles and dynamics effectively, including those of residents, interns, students and organize team dynamics. [S, A]

Scholar

- Demonstrates the ability to review literature and integrate new knowledge on the indications, limitations, and techniques of various lung function assessments. [S, A]
- Critically appraises evidence to answer clinical questions. [S, A]
- Demonstrates the ability to teach residents and medical students indications, limitations, and techniques of pulmonary lung function testing, with guidance from the attending. [S, A]
- Applies continuous self-evaluation and engages in personal performance improvement. [A]

Health Advocate

- Advocates on behalf of patients at both the individual practice and population levels. [A]
- Identifies socioeconomical, environmental, and biological factors that influence patient adherence, and overall health. [S, A]
- Responds to community and population needs by advocating for system-level change in a socially accountable manner (e.g., through volunteering). [A]
- Promotes patient safety. [A]

Professional

- Demonstrates respect for patient diversity and adheres to ethical principles when conducting pediatric pulmonary function studies. [S, A]
- Upholds the highest standards of clinical excellence and ethical conduct. [S, A]

Duration

One block, 4 weeks

Setting

Hospital-based rotation within an accredited pulmonary function laboratory equipped to perform a full range of pulmonary function tests. The facility must include designated teaching and training resources.

Assessment Tools

At the end of the rotation, the attending physician may assess the fellow using the following tools: DOPS, CbD, mini CEX, logbook, and participation in scientific activities.

A minimum of one CbD and one mini CEX, or one DOPs or a topic presentation, along with a respected input in the logbook, is required for successful completion of the rotation.

Second-year rotations

1. General Respiratory Medicine Rotation

Introduction

This rotation will provide the pediatric respiratory fellow with core concepts, roles, responsibilities, and safety considerations in pediatric respiratory medicine. The senior fellow is expected to master pediatric respiratory care and serve as an appropriate role model.

Learning objectives

By the end of these rotations, the pediatric fellow will be able to:

1. Gather essential and accurate information clinical information. [K]
2. Organize and prioritize responsibilities to deliver safe, effective, and efficient patient care. [K]
3. Ensure seamless transitions through effective transfer of care. [K]
4. Conduct thorough patient and family interviews, with attention to behavioral, psychosocial, environmental, and family-related factors. [K]
5. Perform complete and accurate physical examinations [S, A]
6. Make diagnostic and therapeutic decisions demonstrating sound clinical judgment. [S, A]

7. Develop and implement management plans in consultation with the attending. [S, A]
8. Prescribe and perform pulmonary-related medical procedures under appropriate supervision. [S, A]
9. Counsel patients and families under supervision. [A]
10. Provide effective health maintenance and anticipatory guidance. [A]
11. Use information technology to optimize patient care (combined with practice-based learning and improvement)
12. Serve as an appropriate role model. [S, A]
13. Providing supervision, the Pediatric Pulmonary Fellow will be able to: [S, A]
    - Accurately assess the nature, acuity, and severity of clinical problems.
    - Obtain a thorough respiratory history.
    - Perform a comprehensive respiratory system examination.
    - Analyze laboratory results critically.
    - Interpret imaging and diagnostic tests including:
        - Chest X-rays
        - Chest CTs
        - Spirometry
        - Airway challenge test
        - Lung volumes
        - Cardiopulmonary exercise studies
        - Infant pulmonary function tests
        - Exhaled nitric oxide test results
        - Airway oscillation study results
        - Neonatal oximetry studies
    - Formulate a pertinent differential diagnosis based on the above knowledge/skills.
    - Design and defend a management plan for the most likely diagnosis.
    - Collaborate with all team members to determine the best plan of care.
    - Educate patients and families about diagnoses and care plans.
    - Take fast and accurate notes in the EMR and for referring physicians.
    - Follow up on pending investigations and management plans.

- Lead patient rounds as a junior consultant under supervision.

14. Demonstrate a solid understanding of basic and clinical sciences relevant to pediatric respiratory medicine. [K]
15. Critically evaluate and apply current scientific evidence and clinical data to patient care. [(combined with Practice-based Learning and Improvement Specifically, the Pediatric Pulmonary Fellow will:
    - Interpret adherence data from CPAP and apnea-bradycardia monitors.
    - Critically analyze and interpret laboratory results, including:
        - Chest X-rays
        - Chest CTs
        - Spirometry
        - Airway challenge study
        - Lung volumes
        - Cardiopulmonary exercise tests
        - Infant pulmonary function tests
        - Exhaled nitric oxide test results
        - Airway oscillation test results
        - Neonatal oximetry tests
        - Arterial blood gas values
    - Create a pertinent differential diagnosis based on the above knowledge/skills.
    - Develop a well-reasoned plan of management for the most likely diagnosis.
    - Demonstrate a basic understanding of home ventilator management.
    - Attend Morning Report on time and maintain appropriate professional attire.
    - When requested, fellows will model and teach medical students or pediatric residents.
    - Understand appropriate coding and billing practices.
    - Demonstrate competence in diagnosing and managing the conditions listed below.
    - Understand the physiology, pathophysiology, etiology, development, clinical course, and sequelae of the disorders listed below. [K, S, A]

16. Acquire foundational knowledge of flexible bronchoscopy, including indications, preparation, and pre- and post-procedure care. [K]
17. Understand the physiology, pathophysiology, etiology, development, clinical course, and sequelae of the major respiratory disorders. [K]

Practice-Based Learning and Improvement involves the ongoing investigation and evaluation of one's own patient care, appraisal and assimilation of scientific evidence, and continuous improvements in clinical practice. Pediatric pulmonary fellows will:

1. Identify strengths, deficiencies, and limitations in their knowledge and expertise. [S]
2. Set specific learning and improvement goals. [K, A]
3. Identify and engage in appropriate learning activities to support personal and professional development. [K, A]
4. Systematically analyze practice using quality improvement methods to enhance patient care. [S]
5. Incorporate formative evaluation and feedback into daily practice. [S]
6. Locate, appraise, and assimilate evidence from scientific evidence relevant to their patients' health problems. [S, A]
7. Use information technology effectively to support learning and improve care delivery. [S]
8. Develop essential skills to become an effective clinical teacher. [S]
9. Participate actively in the education of patients, families, students, residents, and other health professionals. [A]
10. Take primary responsibility for lifelong learning through familiarity with training goals and objectives, and regular participation in conferences. [A]
11. Apply scientific methods and evidence to evaluate and improve one's patient care practices, especially in the inpatient setting. [S, A]
12. Identify personal learning needs, organize relevant resources for future reference, and plan for the ongoing acquisition of knowledge and skills. [A]
13. Apply principles of evidence-based medicine to efficiently search for, appraise, and apply the best available evidence in pediatric pulmonary care. [K, S]

Communicator

- Communicate effectively with patients, families, and the public, across a broad range of socioeconomic and cultural backgrounds. [K, A]

- Demonstrate the insight into emotional and human response that support the development and management of appropriate interpersonal interactions. [S, A]
- Communicate clearly and effectively with physicians, healthcare professionals, team members, and health-related agencies. [S, A]
- Work effectively as a member of a healthcare team or other professional group. [A]
- Maintain comprehensive, timely, and legible medical records, when applicable [S, A]
- Demonstrate effective teaching skills with students, pediatric residents, colleagues, and other professionals. [K, S, A]
- Discuss and defend clinical decisions with supervising faculty. [K, S, A]
- Collaborate with team members to determine the best plan of care. [K, S, A]
- Educate patients and families regarding diagnoses and care plans. [K, S, A]
- Document promptly and thoroughly in the EMR and for referring physicians. [K, S, A]
- Demonstrate compassion, integrity, and respect for others. [K, A]
- Show respect for patient privacy and autonomy.
- Use interpreter services when necessary. [K, S, A]
- Write or dictate complete and timely clinic notes and letters. [K, S, A]
- Deliver well-organized, clear, understandable lectures and presentations to residents, medical students, and audiences within and outside the division or department. [S, A]
- Apply formative evaluation feedback in daily practice. [S, A]

Collaborator

- Work with others to assess, plan, provide, and coordinate patient care. [A]
- Works effectively within a team environment, including the medical team, nurses, respiratory staff, and other healthcare professionals. [A]
- Communicates efficiently with healthcare professionals, preceptors, colleagues, and caregivers. [A]
- Recognize and respect the diverse roles, responsibilities, and competencies of other health professionals involved in respiratory patient care. [A, S]

Leader

- Serve in administrative and leadership roles, as appropriate. [A]
- Demonstrate appropriate and effective use of healthcare resources. [A]
- Exhibit effective time and task management skills. [S, A]
- Coordinate team organization, including roles of residents, interns, and students, and manage overall team dynamics. [S, A]
- Manages conflicts constructively during the learning experience. [S, A]

Scholar

- Recognize and reflect on learning and practice-related issues. [S, A]
- Attend and actively contribute to rounds, seminars, grand rounds, and conferences.[S]
- Design effective educational activities. [A]
- Apply a process of ongoing self-evaluation and continuous performance improvement. [A]
- Critically appraise scientific evidence to address a clinical question. [S, A]

Health Advocate

- Advocate on behalf of patients at both individual and population levels. [A]
- Identify the socioeconomical, environmental, and biological factors that affect patient adherence and overall health outcomes. [S, A]
- Respond to community and population needs by advocating for system-level change in a socially accountable manner (e.g., through volunteering) [A]
- Promote patient safety. [A]

Professional

- Adhere to team ethics, including confidentiality, resource allocation, and professionalism. [S, A]
- Deliver the highest quality of care with integrity and compassion. [S, A]
- Acknowledge personal limitations and seek advice and consultation when appropriate. [S, A]
- Uphold the highest standards of excellence in clinical care and ethical conduct. [S, A]

- Demonstrate maturity and accountability in the role of a junior acting consultant. [S, A]

Duration

Six blocks of 24 weeks (each block 4 weeks)

Setting

Hospital setting within Saudi-Commission accredited facility, equipped with designated teaching and training facilities.

Assessment Tools

At the end of the rotation, the attending physician may assess the fellow using the following tools: DOPS, CbD, mini CEX, logbook, and participation in scientific activities.

(A minimum of one CbD and one mini CEX, or one DOPs or a topic presentation, along with a respected input in the logbook, is required for successful completion of the rotation).

2. Pediatric Sleep Medicine Rotation

Introduction

This rotation will equip the pediatric respiratory fellow with foundational knowledge, roles, and responsibilities, and safety principles of pediatric sleep medicine.

Learning objectives

- Gather essential and accurate patient information. [K]
- Organize and prioritize tasks to deliver patient safe, effective, and efficient care. [K, S]

- Develop knowledge of common respiratory and behavioral sleep disorders, obstructive sleep apnea (OSA), central sleep apnea (CSA), and associated syndromes, such as congenital central sleep apnea (CCHS), Joubert syndrome, secondary CSA, insomnia, and narcolepsy. [K]
- Competently obtain a comprehensive sleep history from patients referred to the sleep clinic. [S]
- Formulate a differential diagnosis and develop a plan of management. [K]
- Counsel patients and families under appropriate supervision. [K]
- Provide effective health maintenance and anticipatory guidance. [K]
- Use information technology to enhance patient care. [K]
-

Practice-Based Learning and Improvement involves investigating and evaluating one's own patient care, critically appraising, and integrating scientific evidence, and implementing improvements in clinical practice. Pediatric pulmonary fellows will be able to:

- Identify strengths, deficiencies, and limits in one's knowledge and expertise. [K]
- Set goals for learning and professional improvement goals. [K]
- Engage in case-based reading to support clinical improvement and build knowledge through practice. [K]
- Identify and pursue appropriate learning activities for personal and professional development. [K]
- Analyze clinical practice using quality improvement methods to enhance patient care. [K]
- Incorporate formative evaluation feedback into daily practice. [K]
- Locate, critically appraise, and assimilate evidence from scientific studies relevant to patient care. [K]
- Use information technology to enhance learning and optimize care delivery. [K]
- Develop teaching skills necessary to educate others effectively. [K]
- Participate in the education of patients, families, students, residents, and other healthcare professionals. [K]
- Take primary responsibility for lifelong learning by engaging with experience-specific goals and objectives and attending relevant conferences. [K]

- Apply scientific methods and evidence to investigate, evaluate, and improve patient care in the inpatient setting. [K]
- Identify personal learning needs, organize relevant resources for future reference, and plan for continuous knowledge and skills development. [K]
- Use evidence-based medicine principles to efficiently search for, appraise, and apply the best available evidence. [K]

Communicator

- Communicate effectively with patients, families, and the public across a wide range of socioeconomic and cultural backgrounds. [K, A]
- Communicate clearly and respectfully with physicians, other healthcare professionals, team members, and health-related agencies. [S, A]
- Demonstrate insights into emotions and human responses, enabling appropriate and effective interpersonal interactions. [S, A]
- Maintain clear, accurate, comprehensive, timely, and legible medical records, where applicable. [S, A]
- Work effectively as a member of a healthcare team or other professional group. [A]
- Provides appropriate medical support at various transitional care settings. [S, A]

Collaborator

- Work effectively in a team environment with the physicians, nurses, respiratory staff, and other healthcare professionals. [A]
- Communicate efficiently with healthcare professionals, preceptors, colleagues, and caregivers. [A]
- Collaborate with others to assess, plan, deliver, and coordinate patient care. [A]
- Serve in a consultative role to other physicians and healthcare professionals. [A]

Leader

- Serve in administrative and leadership roles, as appropriate. [A]
- Use healthcare resources appropriately and efficiently. [A]
- Demonstrate effective time and task management skills. [S, A]

- Coordinate team roles and dynamics, including the responsibilities of residents, interns, and students. [S, A]

Scholar

- Recognize and reflect on learning and practice-related issues [S, A]
- Attend and actively contribute to rounds, seminars, grand rounds, and conferences.
- Design effective and relevant educational activities. [A]
- Engage in ongoing self-evaluation and strive for continuous performance improvement. [A]
- Critically appraise evidence to address clinical question. [A]

Health Advocate

- Advocate on behalf of patients at both individual and population levels. [A]
- Identify the socioeconomic, environmental, and biological factors that influence patient adherence and overall health. [S, A]
- Respond to community and population needs by advocating for system-level change in a socially accountable manner (e.g., through volunteering). [A]
- Promote patient safety. [A]

Professional

- Adhere to team ethics, including confidentiality, resource allocation, and professionalism. [S, A]
- Deliver the highest quality of care with integrity and compassion. [S, A]
- Recognize limitations and seek advice or consultation when necessary. [S, A]
- Uphold the highest standards of clinical excellence and ethical conduct. [S, A]
- Arrive on time for Morning Report and dress appropriately for patient care. When requested, fellows should model and teach other students or pediatric residents. [S, A]

Duration:

Six blocks, 4 weeks

Setting:

Hospital setting within an accredited sleep lab by Saudi commission with designated teaching and training facilities.

Assessment Tools

At the end of the rotation, the attending physician may assess the fellow using the following tools: DOPS, CbD, mini CEX, logbook, and participation in scientific activities.

(A minimum of one CbD and one mini CEX, or one DOPs or a topic presentation, along with a respected input in the logbook, is required for successful completion of the rotation.)

3. Pediatric Allergy and Immunology Rotation

Introduction

This rotation will provide the pediatric respiratory fellow with core concepts, roles, responsibilities, and safety considerations in pediatric allergy and immunology.

Learning objectives

- Develop an understanding of the normal anatomy, physiology, and pathophysiology of the respiratory system, skin, and immune system. [A]
- Understand the pathogenesis management of common allergic diseases, including bronchial asthma, food allergy, skin allergy (e.g., urticaria and anaphylaxis), drug and eye allergies, as well as primary immunodeficiencies (e.g., severe combined immunodeficiency, bare cell lymphocyte, and HIV). [K]
- Perform pediatric skin testing. [s]
- Formulate a differential diagnosis and management plan for common allergic and immune disorders. [k]
- Understand the role of diagnostic tests and procedures for allergic and immune disordered, including chest radiographs, CT scans, RAST, and immune workups (e.g., B-cell defect, T-cell subsets, and blastogenesis). [K]
- Understand the pharmacology of drugs used in allergic diseases, such as corticosteroids, antihistamine, and biologics. [A]
- Understand the pharmacology of drugs used in common immunodeficiencies. [K]
- Know when to request specific antibody titers. [K]
- Interpret the results of RAST tests, leukocyte markers, phagocytic function tests, and immunoglobulin levels. [K, S]

- Demonstrate subcutaneous injection techniques for immunotherapy. [A, S]
- Manage conditions such as acute case and outpatient asthma, urticaria, drug and food allergies, allergic rhinitis, sinusitis, primary immunodeficiencies, severe combined immunodeficiency, and antibody deficiency. [A, K, S]

Communicator

- Physicians effectively facilitate the doctor-patient relationship and the dynamic interactions that occur before, during, and after the medical encounter.
- Facilitate the doctor-patient relationship: Fellows establish rapport with children, their parents, and members of the multidisciplinary team in both outpatient and inpatient settings. [A, S]
- Maintain clear, accurate, and appropriate records. [S, A]
- Provides appropriate medical support across various transitional care settings. [S, A]
- Conduct and document discharge counseling promptly and accurately. [A]

Collaborator

- Works effectively within a team environment alongside physicians, nurses, respiratory therapists, and other healthcare professionals. [A]
- Communicates efficiently with healthcare professionals, preceptors, colleagues, and caregivers. [A]
- Collaborate with others to assess, plan, deliver, and coordinate patient care. [A]
- Serve in a consultative role to other physicians and healthcare professionals. [A]

Leader

- Serve in administration and leadership roles, as appropriate. [A]
- Use healthcare resources appropriately and effectively. [A]
- Demonstrate effective time and task management skills. [S, A]
- Coordinate team roles and dynamics, including the responsibilities of residents, interns, and students. [S, A]

Scholar

- Recognize and reflect on learning and practice-related issues. [S, A]

- Actively attend and contribute in rounds, seminars, grand rounds, and conferences.
- Design effective educational activities [A]
- Engage in ongoing self-evaluation and continuous performance improvement. [A]
- Critically appraise evidence to address clinical questions. [A]

Health Advocate

- Advocate on behalf of patients at both individual and general population levels. [A]
- Identify socioeconomical, environmental, and biological factors that affect patient adherence and overall health outcomes. [S, A]
- Respond to community and population needs by advocating for system-level change in a socially accountable manner (e.g., volunteering). [A]
- Promote patient safety. [A]

Professional

- Adhere to team ethics regarding confidentiality, resource allocation, and professionalism. [S, A]
- Deliver high-quality care with integrity and compassion. [S, A]
- Recognize personal limitations and seek advice or consultation when appropriate. [S, A]
- Uphold the highest standards of clinical excellence and ethical conduct. [S, A]
- Arrive on time for Morning Report and dress appropriately for patient care. When requested, fellows should model and teach other students or pediatric residents. [S, A]

Duration

One block, 4 weeks

Setting

Training takes place in a hospital setting within a Saudi Commission-accredited Allergy and Immunology Division, equipped with designated teaching and training facilities.

Assessment Tools

At the end of the rotation, the attending physician may assess the fellow using the following tools: DOPS, CbD, mini CEX, logbook, and participation in scientific activities.

(A minimum of one CbD and one mini CEX, or one DOPs or a topic presentation, along with a respected input in the logbook, is required for successful completion of the rotation).

4. Adult Respiratory Rotation

Introduction

This rotation provides the pediatric respiratory fellow with core concepts, roles, responsibilities, and safety considerations related to adult respiratory medicine.

Learning objectives

- Develop an understanding of normal anatomy, physiology, and pathophysiology of the respiratory system. [K]
- Acquire knowledge of common respiratory diseases and their management, including bronchial asthma, pneumonia, pulmonary tuberculosis, obstructive sleep apnea, bronchiectasis, and air leak. [K]
- Perform a respiratory physical examination and differentiate between normal and abnormal findings. [S]
- Formulate a differential diagnosis and management plan. [A]
- Understand the role of diagnostic tests and procedures for respiratory conditions, such as chest radiographs, CT scan, V/Q scans, pulmonary function tests, sweat chloride testing, sleep studies, and bronchoscopy. [K, S]
- Understand the pharmacology of medications used in respiratory diseases, including tuberculosis, pulmonary hypertension, hypoventilation, and obstructive sleep apnea. [K]
- Understand the pathophysiology of common respiratory illness, such as pneumonia, asthma, and chronic lung diseases. [K]
- Manage common respiratory emergencies, including asthma exacerbation, respiratory failure, pneumonia (and its complications), pulmonary tuberculosis, and pulmonary embolism. [K]

- Perform peak expiratory flow measurement, various spirometry tests, and exercise testing. [S]
- Participate in bronchoscopy under supervision. [A]
- Understand the use of biological agents in asthma and other pulmonary conditions. [A]
- Diagnose and manage pulmonary hypertension. [S]
- Understand the principles of basic non-invasive ventilation and home therapies, such as CPAP, BiPAP. [K]

Communicator

- Physicians effectively facilitate the doctor-patient relationship and the dynamic interactions that occur before, during, and after medical encounter.
- As Communicators, fellows will establish rapport with children and their parents in both outpatient and inpatient settings, as well as with members of the multidisciplinary team. [A, S]
- Maintain clear, accurate, and appropriate medical records. [S, A]
- Provide appropriate medical support across various transitional care settings. [S, A]
- Conduct and document discharge counseling promptly and accurately. [A]

Collaborator

- Work effectively in a team environment with physicians, nurses, respiratory therapists, and other healthcare professionals. [A]
- Communicate efficiently with healthcare professionals, preceptors, colleagues, and caregivers. [A]
- Collaborate with others to assess, plan, deliver, and coordinate patient care. [A]
- Serve in a consultative role to other physicians and healthcare professionals. [A]
- Recognize and respect the diverse roles, responsibilities, and competencies of other health professionals involved in the care of respiratory patient. [A]

Leader

- Serve in administration and leadership roles, as appropriate. [A]
- Use healthcare resources appropriately and effectively. [A]
- Demonstrate effective time and task management skills. [S, A]

- Coordinate team activities and dynamics, including the roles of residents, interns, and students. [S, A]

Scholar

- Recognize and reflect on learning and practice-related issues. [S, A]
- Attend and actively contribute to rounds, seminars, grand rounds, and conferences.
- Design effective educational activities. [A]
- Apply ongoing self-evaluation and continuous performance improvement processes. [A]
- Critically appraise evidence to address a clinical question. [A]

Health Advocate

- Advocate on behalf of patients at both individual and population levels. [A]
- Identify socioeconomic, environmental, and biological factors that influence patient adherence, and overall health outcomes. [S, A]
- Respond to community and population needs by advocating for system-level change in a socially accountable manner (e.g., through volunteering). [A]
- Promote patient safety. [A]

Professional

- Adhere to team ethics related to confidentiality, resource allocation, and professionalism. [S, A]
- Deliver high-quality care with integrity and compassion. [S, A]
- Recognize personal limitations and seek advice or consultation when appropriate. [S, A]
- Uphold the highest standards of clinical excellence and ethical conduct. [S, A]

Duration

One block, 4 weeks

Setting

Training is conducted in a hospital setting within an Internal Medicine Division accredited by the Saudi Commission, equipped with designated teaching and training facilities.

Assessment Tools

At the end of the rotation, the attending physician may assess the fellow using the following tools: DOPS, CbD, mini CEX, logbook, and participation in scientific activities.

(A minimum of one CbD and one mini CEX, or one DOPs or a topic presentation, along with a respected input in the logbook, is required for successful completion of the rotation).

5. ENT Rotation

A New Mandatory Rotation

Introduction

This rotation will provide the pediatric respiratory fellow with core concepts, roles, responsibilities, and safety considerations related to ears, nose, and throat (otorhinolaryngology) practice.

Learning objectives

- Develop an understanding of the normal anatomy, physiology, and pathophysiology of the ears, nose, and throat (ENT, otorhinolaryngology). [K]
- Acquire knowledge of common ENT disorders and infections, including various types of otitis media, acute and chronic sinusitis, types of hearing loss, tonsillar infection and hypertrophy, and adenoid hyper trophy. [K]
- Perform a detailed history and physical examination of the ENT system and distinguish between normal from abnormal findings. [K]
- Differentiate the source of noisy breathing, such as snoring, stridor, and wheezy chest. [K]
- Formulate a differential diagnostic test and management plan for common ENT conditions. [K]
- Understand the role of diagnostic tests and imaging in ENT, including sinus and postnasal x-rays, CT scans of the neck and sinuses, and lateral neck x-rays. [K]
- Demonstrate basic knowledge of instruments such as the nasoscope, glidescope, laryngoscopy, and rigid bronchoscope. [K]
- Understand the indications, precautions, and potential complications of rigid bronchoscopy. [K].
- Understand the various types of hearing assessment. [K]

- Understand the common indications and complications of adenotonsillectomy and identify high-risk patients. [K].
- Manage common causes of upper airway obstruction, including laryngomalacia, adenotonsillar hypertrophy, vocal cord dysfunction, and vocal cord paralysis. [S]
- Manage common upper airway emergencies such as croup, tracheitis, retropharyngeal abscess, epiglottitis, and foreign body aspiration. [K]
- Understand the basics of tracheostomy, including indications, and complications (e.g., subglottic stenosis), and tracheostomy care. [K]
- Understand common congenital ENT anomalies. [K]

Communicator

- Physicians effectively facilitate the doctor-patient relationship and the dynamic interactions that occur before, during, and after the medical encounter. As communicators, fellows are expected to:
  - Establish rapport with children and their parents in both outpatient and inpatient settings, as well as with members of the multidisciplinary team. [S, A]
  - Maintain clear, accurate, and appropriate medical records. [S, A]
  - Provides appropriate medical support across various transitional care settings. [S, A]
- Conduct and document discharge counseling promptly and accurately. [A]

Collaborator

- Work effectively within a team environment alongside physicians, nurses, respiratory therapists, and other healthcare professionals. [A]
- Communicates efficiently with healthcare professionals, preceptors, colleagues, and caregivers. [A]
- Collaborate with others to assess, plan, provide, and coordinate patient care. [A]
- Serve in a consultative role to other physicians and health professionals. [A]
- Recognize and respect the diversity of roles, responsibilities, and competencies of other health professionals involved in the care of respiratory patients. [A]

Leader

- Serve in administrative and leadership roles, as appropriate. [A]
- Use healthcare resources appropriately and effectively. [A]
- Demonstrate effective time and task management skills. [S, A]
- Manage team organization and dynamics, including the roles of residents, interns, and students. [S, A]

Scholar

- Recognize and reflect on learning and practice-related issues. [S, A]
- Attend and contribute to rounds, seminars, grand rounds, and conferences.
- Design effective educational activities. [A]
- Apply ongoing self-evaluation and continuous performance improvement processes. [A]
- Critically appraise evidence to address clinical questions. [A]

Health Advocate

- Advocate on behalf of patients at both individual and general population levels. [A]
- Identify socioeconomic, environmental, and biological factors that influence patient adherence, and overall health outcomes. [S, A]
- Respond to community or population needs by advocating for system-level change in a socially accountable manner (e.g., through volunteering). [A]
- Promote patient safety. [A]

Professional

- Adhere to team ethics related to confidentiality, resource allocation, and professionalism. [S, A]
- Deliver high-quality care with integrity and compassion. [S, A]
- Recognize personal limitations and seek advice or consultations when appropriate. [S, A]
- Uphold the highest standards of clinical excellence and ethical conduct. [S, A]

Duration

One block, 4 weeks

Setting

Training is conducted in a hospital setting within an ENT Department Division accredited by the Saudi Commission, equipped with designated teaching and training facilities.

Assessment Tools

At the end of the rotation, the attending physician may assess the fellow using the following tools: DOPS, CbD, mini CEX, logbook, and participation in scientific activities.

(A minimum of one CbD and one mini CEX, or one DOPs or a topic presentation, along with a respected in the logbook, is required for successful completion of the rotation).

IX. CONTINUUM OF LEARNING

This includes the learning that should occur at each key stage of progression within the specialty. Trainees are reminded of the importance of life-long Continuous Professional Development (CPD). Trainees should recognize that ongoing CPD is essential for all healthcare providers to meet the evolving demands of their profession.

The following table outlines how this role is expected to develop progressively across the junior, senior, and consultant levels of practice.

Table 2. Requirements for Pediatric Respiratory Fellowship program ?

	F1 (Junior Level)	F2 (Senior Level)	Consultant
Practicing	Dependent/supervised practice	Dependent/supervised practice	Independent practice/provide supervision
Obtain basic health science and foundational level to core discipline knowledge	Obtain fundamental knowledge related to core clinical problems of the specialty	Apply knowledge to provide appropriate clinical care related to core clinical problems of the specialty	Acquire advanced and up-to-date knowledge related to core clinical problems of the specialty
Internship to the practice of discipline	Apply clinical skills, such as physical examinations and practical procedures related to the core presenting problems and procedures of the specialty	Analyze and interpret the findings from clinical skills to develop appropriate differential diagnoses and management plan for the patient	Compare and evaluate challenging, contradictory findings and develop expanded differential diagnoses and management plan

X. TEACHING METHODS

The teaching process for the Pediatric Respiratory Fellowship Program is grounded in the principles of adult learning theory. Fellows are expected to recognize the importance of learning and to take an active role in both the content and process of their education. The training programs incorporates adult learning principles throughout all educational activities, placing responsibility on fellows to identify and meet their own learning needs.

Fellows will achieve the competencies outlined in the curriculum through a variety of learning methods. The program includes training designed to develop cognitive and technical skills, with emphasis on their application in physics, applied anatomy, pathology, and the physiology of radiation in medicine. Training also involves the performance and interpretation of practical procedures, taught in a structured and integrated manner through lectures, tutorials, seminars, and apprenticeships that provide hands-on experience.

Formal training activities include the following components:

- Program-specific learning activities
- Universal topics
- General learning opportunities
- Simulation courses

Program Specific Learning Activities

Program-specific activities are educational sessions specifically designed to support trainees' learning during the training program. Attendance at these activities is mandatory, and non-compliance may result in disciplinary action. It is recommended that attendance and active participation be linked to formative assessment tools (refer to the formative assessment section below). Program administration is expected to support these activities by ensuring protected time is allocated for fellows to attend and fully engage in them.

A. Program Academic half-day

A minimum of 2-4 hours of formal training time (commonly referred to as an academic half-day) should be scheduled each week. This formal teaching time refers to structured educational sessions with designated tutors, specific time slots, and assigned venues. It does **not** include hands-on clinical teaching. The academic half-day covers fundamental topics identified and approved by the specialty's

Scientific Council. These topics are aligned with specialty-defined competencies and delivered using appropriate teaching methods.

Core specialty topics are designed to ensure that the key clinical problems within the specialty are thoroughly addressed. It is recommended that lectures be delivered in an interactive, case-based discussion format. Clear learning objectives must be defined for each core topic, and the use of pre-learning materials is encouraged to enhance engagement and understanding. Where applicable, core topics should incorporate workshops, team-based learning (TBL), and simulation-based sessions to support the development of essential procedural skills. Regional supervisory committees, in collaboration with academic and training affairs, program directors, and chief fellows, are responsible for the planning and effective implementation of these academic activities, as outlined in the curriculum. Trainees should be actively involved in the development and delivery of academic topics under faculty supervision. This involvement may include content development, topic presentation, or related research activities. Supervisors must ensure that discussions for each topic are, where applicable, structured to all three learning domains: **knowledge**, **skill**, and **attitude**.

The **academic half-day** is intended to:

- Provide the knowledge, technical skills, and experience necessary for fellows to interpret and correlate their clinical findings.
- Promote effective communication and the exchange of expertise among peers and colleagues.
- Foster the development of investigative skills to enhance understanding of technical processes as they relate to both individual patients and the broader patient populations.
- Enable fellows to advise colleagues within and outside their specialty on issues related to medical physics.
- Support recognition of the humanistic and ethical dimensions of a career in medical physics.
- Encourage fellows to examine and uphold their personal and professional moral commitments.
- Equip fellows with clinical reasoning and interaction skills necessary to apply their knowledge and insights effectively in patient care.

The recommended number of half-days that should be conducted annually is 40 sessions per academic training year. Time should also be reserved for other educational activities, such as journal clubs, clinical teachings, and practical sessions. The Fellowship Training Committee, program directors, and chief fellows, working in coordination with Academic and Training Affairs and regional supervisory committees, are collectively responsible for planning and implementing academic activities as outlined in the curriculum.

This process should be carried out efficiently by leveraging available resources and encouraging the optimal exchange of expertise. **Table 3** provides an example of an academic half-day structure.

Table 3. Recommended scientific activities for the half-day academic calendar

Week 1	None	Schedule precreation	Venue
Week 2	Chairman of the Scientific Committee	Welcome and introduction by the head of the Scientific Committee Basics of CXR reading and CXR case challenges	PSMMC (on-site/online)
Week 3	F2 NGH F2 PSMMC	Update on Bronchiolitis Acute infection of upper airway in children	KAMC (online)
Week 4	F1 KFSHRC F1 KFSRC	Approach to chronic cough Pre-school wheeze & asthma mimickers	KKUH (online)
Week 5	F2 KFSRC F1 NGH	Immune pathogenesis of asthma Management of asthma (from simple to severe)	KFMC (online)
Week 6	CONSULTANT - KSMC	Physiology lecture 1	KSMC (on-site/online)
Week 7	F2 KKUH F2 KFSHRC – JEDDAH	Method of airway clearance in children Pulmonary manifestation of NMD	KFSH-RC Jeddah (online)
Week 8	CONSULTANT - NGH	Basics of Bronchoscopy Hands on Virtual lab	KAMC (Physical)
Week 9	F2 PSMMC F2 PSMMC	Aspiration pneumonia diagnosis & management inhalation lung injury	PSMMC (online)
Week 10		Ramadan + Eid Fitr	
Week 11	F1 NGH F1 KSHRC	lung atelectasis Pulmonary TB diagnosis & management	KFMC (online)
Week 12	CONSULTANT - KFSRC	Cystic fibrosis basics and pathogenesis Cystic fibrosis gene therapy by Dr. Hana Banger	KFSH-RC Riyadh (on-site/online)

Week 1	None	Schedule precreation	Venue
Week 13	NGHF1 F1 NGH	Approach to a patient hypoxemia (including physiology of O_2 & CO_2 transport) Tracheostomy in children	KAMC (online)
Week 14	F1 PSMMC F1 PSMMC	Pleural effusions causes & management Lung abscess, empyema, and necrotizing pneumonia	PSMMC (online)
Week 15	F1 KFSHRC F1 KFHRC	Vascular rings diagnosis & management TEF post repair complications	KKUH (online)
Week 16	CONSULTANT-1 Dr. Mohammad Alblawi	CT basics and interpretation (Part 1)	KFSH-RC Riyadh (on-site/online)
Week 17	CONSULTANT-2 Dr. Mohammad Alblawi	CT basics and interpretation (Part 1)	KFSH-RC Riyadh (on-site/online)
Week 18	F1- KSMC F1 KFSHRC	OSAS in children Narcolepsy	KSMC (online)
Week 19	F1 KFRC-JEDDAH F2 KFMC	Lung metastasis in children Mediastinum mass & thoracic tumors	PSMMC (online)
Week 20		Eid Adha	
Week 21	CONSULTANT KFMC	Basics of sleep study Sleep related cases and topic	KFMC (on-site/online)
Week 22	F1 KFSH-RC F1 KSMC	Non-CF bronchiectasis BOOP/BO	KSMC (online)
Week 23	F1 KFSH-RC F1 KFMC	O_2 delivery methods Aerosol inhalation method & devices	KKUH (Online)
Week 24	F1 KFSH-RC F2 KFSH-RC - JEDDAH	Tracheomalacia Air leak syndrome	KFSH-RC Jeddah

Week 1	None	Schedule precreation	Venue
Week 25	CONSULTANT - KSMC	Physiology lecture 2	KSMC (on-site/online)
Week 26	F1 NGH F1NGH	ABPA (CF vs asthma) Lobectomy in children	PSMMC (online)
Week 27	F2 KFMC F1 KFSH-RC	CSA in children CCHS	KFMC (online)
Week 28	CONSULTANT - KFHRC	PFT in children Includes visit to PFT lab and technical specifications	KFSH-RC Riyadh (on-site/online)
Week 29	F1NGH F1 NGH	Pulmonary complication of MPS lung in sickle cell disease (includes detailed acute chest syndrome)	KAMC (online)
Week 30	F1 PSMMC F1 PSMMC	non-pulmonary manifestation in CF (includes pancreatic enzyme) pseudomonas in CF	KFMC (online)
Week 32	CONSULTANT KFMC	PCD diagnosis & management	KFMC Riyadh (on-site/online)
Week 33	F1 KFSH-RC F2 NGH	BPD in children chylothorax in children	KKUH (online)
Week 34	CONSULTANT NGH	Case challenges	KAMC (on-site/online)
Week 35	F2 PSMMC F2 KFMC	indication and (work up lung transplants in children) Post lung transplant complication	KFSH-RC Jeddah (online)
Week 36	F1 KFSH-RC F2 KFMC	Approach to recurrent chest infection Approach to hypoventilation	KKUH (online)
Week 37	F2 KFSH-RC F1 NGH	pulmonary-renal syndrome Hepato-pulmonary syndrome	PSMMC (online)

Week 1	None	Schedule precreation	Venue
Week 38	F1 KFMC F2 KFMC	Diaphragmatic hernia Approach to failure of extubation	KSMC (online)
Week 39	CONSULTANT – KFSH-RC	Blood gas interpretation Case challenges with blood gas	KFSH-RC Riyadh (on-site/online)
Week 40	F2 KKUH F2 KFSH-RC JEDDAH	Pre/post-operative assessment of special disorder (Scoliosis/Asthma/Restrictive lung diseases) Pulmonary manifestation of Down syndrome	KFMC (online)
Week 41	F1 KFSH-RC - JEDDAH F1 KFSH-RC	Pulmonary edema ARDS	KKUH (online)
Week 42	F1 NGH F1 NGH	ILD in children (including surfactant hemostasis) Idiopathic pulmonary hemorrhage in children	KAMC KAU (online)
Week 43	CONSULTANT - PSMMC	Clinical case challenges	PSMMC (onsite/online)
Week 44	F1 PSMMC F1PSMMC	Approach to chronic stridor Pertussis & pertussis like illnesses	KFMC (online)
Week 45	F1 KFSH-RC F2 KSMC	Eosinophilic pneumonia Bronchial circulation (massive hemoptysis)	KSMC (online)
Week 46	F1 KFSH-RC F1 KFSH-RC	Non-invasive ventilation Chest wall disorder	KAMC (online)
Week 47	F1 NGH (J) F1 PSMMC	Pulmonary manifestation of systemic inflammatory diseases Pulmonary complication of congenital heart disease (includes plastic bronchitis)	PSMMC Riyadh (online)

Week 1	None	Schedule precreation	Venue
	Important Notes: • Each topic will be allocated 45 minutes. • Most activities will be conducted virtually and arranged by the chief fellow. The program direct or their designated representative is expected to attend. If the program director is unavailable, it is their responsibility to arrange for a qualified colleague to attend on their behalf. • Trainees must coordinate with their supervising consultant at least two weeks in advance to discuss key concepts to be covered. • Some activities will be held on-site, and these will be announced in advance by the chief fellow and the speaker. • Fellows are expected to develop competence in the physiology, pathophysiology, diagnosis, evaluation, treatment, and complications related to each topic presented. • Each fellow is required to attend at least one bronchoscopy course and one fundamental research course. • Research, ethics, professionalism, respect, and patient safety are integrated across all educational domains. • Each activity must include 3-5 multiple-choice questions related to the topic presented.		

Abbreviations: PSMMC; Prince sultan military medical city, KFMC: King Fahad medical city, NGH: national guard hospital, KFSH-RC; king Faisal specialist hospital research center, KKUH; king Khalid university hospital, KAU: King Abdulaziz University, KSMC: King Saud Medical City

Educational Component Layout

Several core courses will be organized for fellows to augment their training in various important areas. These courses are typically offered on academic half-days (see Table 4).

Table 4. Core courses offered on academic half-days

F1	General respiratory	Anatomy & Physiology	Radiology	Sleep	Informatics	Ethics	Research Methodology
	20 weeks	6 weeks	4 weeks	4 weeks	2 weeks	2 weeks	2 weeks

F2	Selected topics in pediatric respiratory fellowship program
	40. weeks

B. Practice-Based Learning

Training exposure through clinical and work-related activities, including courses, workshops, simulations, and clinical teaching, provides valuable learning opportunities. Fellows are expected to enhance their competence through self-directed learning.

On the other hand, practice-based learning enables educators to supervise fellows in developing practical skills essential for achieving competency across the knowledge, psychomotor, and attitude learning domains. Each fellow is required to maintain a logbook documenting both supervised and independent clinical training activities.

The following are examples of **Practice-Based Learning (PBL)** activities:

- Journal club

Fellows review pre-selected journal articles and lead discussions under supervision to:

- Promote continuous professional development
- Stay current with the literature
- Learn and practice critical appraisal skills

- Discussion (logbook)

Fellows are expected to:

- Compile a list of common issues identified in medical physics board examinations
- Proposed suitable solutions for each issue
- Present follow-up discussions and outcomes

- Guest speakers on core specialty topics

These sessions aim to:

- Enhance the knowledge and skills of medical physicist staff and trainees to ultimately improve patient care

- Promote understanding and application of current practice guidelines in medical physics
- Present and discuss the latest advances and research in the field
- Identify and explain controversial or evolving topics within medical physics

- Tutorial

Tutorials are designed to:

- Provide a strong foundational understanding of radiological interpretation
- Review and discuss imaging findings and diagnostic approaches for various radiological conditions
- Build confidence in clinical reasoning and case-based discussions

- Courses and Workshops

Fellows are encouraged to:

- Attend national and international conferences
- Build professional networks with other medical physicists
- Exchange ideas and experiences
- Select courses aligned with their interests and departmental project involvement

- Self-Directed Learning

Fellows are encouraged to take responsibility for their own learning through activities such as:

- Maintaining a personal portfolio that includes self-assessment, reflective learning, and a personal development plan
- Pursuing personal learning goals beyond the essential and core curriculum
- Engaging in independent reading, including web-based resources
- Participating in audits and conducting research projects

- Clinic-Based Learning

Clinical learning is reinforced through tasks such as:

- Discussing differential and management plans with colleagues
- Consulting with attending physicists on the need for specialized procedures
- Supervising and reviewing resident notes and orders, and interpreting reports in collaboration with attending physicists

It is highly recommended that these activities be integrated with relevant formative assessment tools, such as DOPS, mini-CEX, logbook.

- Weekly Report:

The weekly report is a structured review session between fellows and their primary supervisors. While the format may vary across fellowship programs, the primary objectives are to:

- Ensure fellows are developing case presentation skills,
- Facilitate discussion of interesting or complex clinical cases
- Enhance problem-solving abilities and multidisciplinary team collaboration

Weekly log entries and progress checklists should be used to guide these sessions. (Refer to the attached logbook.)

C. Universal Topics

Universal Topics are educational modules developed by the Saudi Commission for Health Specialties (SCFHS) and are designed for all specialties. Priority is given to topics that are:

- Of high educational value
- Interdisciplinary and integrated in nature
- Dependent on expertise that may not be readily available at local clinical training sites

Universal Topics are available through e-learning platforms with personalized access for each trainee. Each module includes a self-assessment at the end. As outlined in the *Executive Policies of Continuous Assessment and Annual Promotion*, **Universal Topics are a mandatory requirement** for the promotion of trainees from their current training level to the next. These topics are to be distributed across the entire duration of the training program (see Table 5).

Advice to write a table for the selected universal topics and the required year to finish (Provide universal topics schedule with modules/objectives description and to indicate distribution over program training academic years)

Table 5. Distribution of Selected Universal Topics throughout the fellowship training.

Training Year	*Modules*		Topics name	
	Number	Name	Number	Name
F1	Module-1	Introduction to "Medical Fundamentals"	Topic-5	Safe drug prescribing
	Module-3	Diabetes and Metabolic Disorders	Topic-10	Recognition and management of Diabetic emergencies
	Module-1	Introduction to "Medical Fundamentals"	Topic-2	Hospital acquired infections
	Module-1	Introduction to "Medical Fundamentals"	Topic-4	Sepsis; SIRS
	Module-3	Diabetes and Metabolic Disorders	Topic-12	Obesity
	Module-3	Diabetes and Metabolic Disorders	Topic-13	Cardiovascular Risk
	Module-4	Medical and Surgical Emergencies	Topic-7	Acute chest pain
	Module-4	Medical and Surgical Emergencies	Topic-15	Acute breathlessness
	Module-4	Medical and Surgical Emergencies	Topic-18	Hypertension
	Module-5	Acute care	Topic-23	Post-Operative Care
F2	Module-1	Introduction to "Medical Fundamentals"	Topic-1	Blood transfusion
	Module-5	Acute Care	Topic-24	Acute and Chronic Pain Management
	Module-7	Ethics and Healthcare	Topic-34	Organ Transplantation
	Module-7	Ethics and Healthcare	Topic-31	Occupational Hazards of Healthcare Workers

Training Year	*Modules*		Topics name	
	Number	Name	Number	Name
	Module-7	Ethics and Healthcare	Topic-32	Evidence-based Approach to Smoking Cessation
	Module-7	Ethics and Healthcare	Topic-33	Patient Advocacy
	Module-7	Ethics and Healthcare	Topic-35	Autonomy and Treatment Refusal
	Module-5	Acute Care	Topic-21	Abnormal ECG
	Module-7	Ethics and Healthcare	Topic-36	Death and dying

D. General Learning Opportunities

Formal training time should be supplemented by additional PBL activities, including:

- Journal Club
- Participation in quality improvement committees and meetings
- CPD activities relevant to the specialty (e.g., conferences and workshops)
- Pediatric respiratory patient review meetings
- Morbidity and mortality (M&M) conferences

M&M conferences provide trainees with the opportunity to review and discuss patient cases that involve adverse outcomes due to medical errors or complications. The primary goal is to shift the focus of M&M sessions toward teaching patient safety principles and promoting error-reduction strategies.

E. Simulation

As the national supervising body, the SCFHS has taken steps to integrate clinical simulations into fellowship training programs. Simulation-based education involves the creation of realistic, artificial clinical scenarios from which fellows can learn in a safe, controlled, and standardized environment. This approach offers significant educational benefits, including opportunities to learn and practice managing rare and/or high-risk clinical situations and performing uncommon procedures. The simulation setting allows for immediate, structured feedback, which has been shown to positively impact knowledge acquisition, skill development, and professional attitudes (10, 11).

To maximize educational value, simulation scenario must closely mirror real clinical situations, incorporating actual team roles, equipment, and clinical settings. As emphasized by Mc Gaghie et al., effective simulation training consists of three key elements: planning, pre-briefing, and timely feedback (12, 13).

The use of simulation in postgraduate training programs has become essential, especially within competency-based curricula. These programs aim to produce skilled, competent, and independent physicians, with a strong emphasis on quality of care and patient safety. In practice, however, the integration of simulation into such curricula varies considerably, influenced in part by the nature of each specialty. Establishing standardized methods for simulation needs assessment may present a substantial challenge for national bodies overseeing diverse and evolving postgraduate training programs.

Simulation exercises are implemented at the F1 and F2 levels as fellows gain practical experience, providing exposure to infrequent clinical scenarios. Examples include simulating freehand setup planning for photon or electron treatments requiring manual MU calculations, special technique commissioning (e.g., bronchoscopy courses), and animal-mediated interventions (14-16,19).

XI. ASSESSMENT AND EVALUATION

1. Purpose of Assessment

Assessment plays a vital role in the success of postgraduate training, guiding both trainees and trainers toward achieving defined standards, learning outcomes, and competencies. It provides valuable feedback to learners and faculty on curriculum development, teaching methods, and the quality of the learning environment. Reliable and valid assessments are essential for ensuring alignment between curriculum objectives, instructional methods, and evaluation tools. Ultimately, assessment assures patients and the public that health professionals competent and capable of practicing safely.

Assessment can serve the following purposes:

1. **Assessment for learning:** Trainers use assessment data from trainees performance to support continuous improvement. This approach enables educators to provide feedback on trainees' knowledge, understanding, and skills, guiding them on how to improve.
2. **Assessment of learning:** This form of assessment demonstrates the achievement of learning outcomes. It is typically graded and contributes to the trainee's final certification or degree.
3. **Feedback and evaluation:** Assessment outcomes serve as quality metrics, enhancing the learning experience and helping trainers identify areas requiring further attention.

Miller's Pyramid of Assessment provides a structured framework for evaluating clinical competencies. It guides the selection of appropriate assessment methods across four levels: *knows*, *knows how*, *shows how*, and *does*. To support the effective implementation of formative assessment, a set of guidelines is available.

Please refer to the updated electronic version at www.scfhs.org.sa for further details.

For clarity and organization, assessments will be further classified into two main categories: **Formative** and **Summative**.

2. Formative Assessment

2.1 General Principles

Purpose of Formative Assessment

- Enhance learning by providing timely feedback, allowing fellows to assess their performance and identify areas for development and improvement.
- Drive learning and enhance the training process by clarifying expectation and motivating fellows to pursue appropriate training and experience.
- Offer robust, summative evidence that fellows are meeting the curriculum standards throughout the training program.
- Ensure that fellows acquire competencies aligned with the principles of good medical practice.
- Confirm that fellows possess the foundational knowledge, skills, and attitude essential to their specialty.

As adult learners, trainees should actively seek to understand and improve their performance through feedback, progressing along the continuum from novice to mastery. Formative assessment, also known as continuous assessment, is delivered throughout the academic year and primarily intended to provide constructive feedback to support trainee development.

Every two weeks, at least one hour should be allocated for trainees to meet with their program director (or assigned mentor) to review performance reports, such as the ITER, logbook, and workplace-based assessment tools. Input from these formative assessment tools will be used at the end of the academic year to determine whether a trainee is eligible for promotion to the next level.

Formative assessment tools are defined based on scientific committee recommendations, which are usually updated and announced for each program at the beginning of the academic year.

According to the executive policy on formative assessment (available at www.scfhs.org), formative assessment should have the following features, aligned with targeted competencies:

1. **Multisource:** A minimum of three tools must be used.
2. **Comprehensive:** Assessment must cover all learning domains (knowledge, skills, and attitude).
3. **Relevant:** Emphasis should be placed on workplace-based observations.
4. **Milestone-oriented:** Competencies assessed should reflect the trainee's expected developmental stage.

2.2 Formative Assessment Tools

Trainees are encouraged to actively seek feedback throughout their training, while trainers are expected to provide timely formative assessments. The SCFHS will offer an e-portfolio system to facilitate communication and streamline the analysis of formative assessment data. Both trainers and trainees must adhere to the Scientific Council's recommendations regarding the use of updated evaluation forms, including frequency, distribution, and submission deadlines(17).

To achieve the desired training level outcomes, trainees must complete all required formative assessment tools as mandated (see Tables 6-8).

2.2.1 Workplace-based assessment

Workplace-based assessment (WBA) tools are integral to evaluating clinical performance in real settings. Trainee compliance with each recurring WBA tool must be no less than 75%. Compliance is calculated using the following formula:

Compliance (%) for a WBA tool = (Number of encounters completed by the trainee ÷ Total number required for the tool × 100)

2.2.2 Educational Activities (Non-WBA assessment)

Educational activities (EAs) form part of the structured training program and include teaching and learning engagements aimed at developing specialty-specific competencies. Examples of contributions include, but are not limited to, presentations in journal clubs, lectures, M&M rounds, grand rounds, and participation in research and scholarly activities.

Table 6 summarizes the formative assessment tools required of trainees. Further details and explanations are provided in the section on the mapping of learning objectives and competency roles to the program rotations.

Table 6. Summary of the required assessment tools for all levels

Program			Pediatric respiratory fellowship									
Level	Rotation	Duration (weeks)	Knowledge Skills Attitude									
			Workplace-based assessment			Educational activity (non-WBA assessment)						
			DOPS	mini - CEX	CbD	Academic Activities	Logbook	EYPT	SOE	OSCE	Research	ITER
F1	General Respiratory (10)	40	(×4)	(×10)	(×10)	√	√		√			√
	Pediatric Intensive Care (1)	4	(×1)	(×1)	(×1)	√	√		√			√
	Pulmonary Function Test (1)	4	(×1)	(×1)	(×1)	√	√		√			√
	Vacation (1)	4										
F2	General Respiratory (7)	24	(×4)	(×6)	(×6)	√	√		√		√	√
	Allergy and Immunology (1)	4	(×1)	(×1)	(×1)	√	√		√		√	√
	Sleep Medicine (1)	4	(×1)	(×1)	(×1)	√	√		√		√	√
	Adult Respiratory (1)	4	(×1)	(×1)	(×1)	√	√		√		√	√

Program			Pediatric respiratory fellowship									
Level	Rotation	Duration (weeks)	Knowledge Skills Attitude									
			Workplace-based assessment			Educational activity (non-WBA assessment)						
			DOPS	mini - CEX	CbD	Academic Activities	Logbook	EYPT	SOE	OSCE	Research	ITER
	ENT (1)	4	(×1)	(×1)	(×1)	√	√		√		√	√
	Elective (1)	8		(×2)	(×2)	√	√		√		√	√
	Vacation (1)	4										

DOPS, Direct observation of procedural skills; mini-CEX, mini-clinical evaluation exercise; CBD, Case-based discussion; MCQs: Multiple-choice question exam; EYPT, End year progress test; SOE, Structured oral examination; OSCE, Objective structured clinical examination; ITER, In-training evaluation report.

Table 7. Description Table of Formative Assessment Tools

Learning Domains	Assessment Tool	Requirements
Knowledge	Structured Oral Exam	**Four stations (should be completed by October)**
	Educational Activities	**Minimum of two presentations for each fellow**
	Case-Based Discussion	**Minimum of 12 for each fellow**
Skills	Research	Minimum of approved IRB for F1 and impressive input by F2 according to the program director
	Logbook	**As charted on one 45 or the hard copy, Mumaris plus (needs to be updated)**
	Direct Observation for Procedural Skills	**Minimum of 6 for each fellow**
	Mini-Clinical Evaluation Exercise	**Minimum of 12 for each fellow**
Attitude	In-Training Evaluation Report	**13 blocks/year each block 4 weeks**

All formative assessment tools used for formative assessment purposes MUST abide by the Scoring Categories and Scaling Definitions in the SCFHS policies.

Table 8. Scoring categories

Percentage	<50%	50-59.4%	59.5-69.4%	>69.5%
Description	Clear fail	Borderline fail	Borderline pass	Clear pass

To qualify for unconditioned promotion, the candidate must score a minimum of "**borderline pass**" in all five assessment components.

However, the program director may still recommend promotion in specific cases where this requirement is not fully met, under the following conditions:

- The candidate receives a "**borderline failure**" in no more than **one or two** components, provided they do not fall withing the same assessment domain (e.g., both borderline failures cannot be in the same skills domain).
- The candidate must have **passed all other components** and achieved a **minimum of clear pass** in at least two components.

Table 9. Description of Formative Assessment Tools (F1 and F2)

Performance Evaluation and Requirements	Formative Assessment Tools	Important details (description & frequency related to the tool/academic year)
Workplace-Based Assessment	Direct Observation for Procedural Skills	- DOPS is used to assess the trainee's procedural, practical, and technical skills while being observed by a trainer/instructor in a workplace setting. - Fellows are required to perform a minimum of 0.5 DOPS per rotation, i.e., a total of 6 in the academic year. - Results are for formative feedback purposes. - See attached DOPs form
	Mini-Clinical Evaluation Exercise	- Mini-CEX is used to directly assess a fellow's clinical skills while being observed by a trainer/instructor in a workplace setting. - Both F1 and F2 are required to complete a minimum of one mini-CEX per rotation, i.e., a total of 12 mini-CEX per academic year per level. - Results are for formative feedback purposes. - See attached Mini-CEX form
	Case-Based Discussion	- CbD is used to evaluate the fellows' clinical decision-making and reasoning skills (higher order thinking and synthesis). - fellows are required to complete a minimum of one CbD per rotation (i.e., a total of 12 CbD per academic year. - Results are for formative feedback purposes. - See attached CbD form

Performance Evaluation and Requirements	Formative Assessment Tools	Important details (description & frequency related to the tool/academic year)
F1, F2	Logbook	- The logbook is used to document and assess the fellow's enrolment and daily activity, while the portfolio is used to provide evidence of teamwork, assessing complex competencies as lifelong learning. - All fellows are required to maintain a logbook to be presented during the supervisor/program director meetings and at the end of rotations. - All fellows are required to include in the logbook the background, methodology, results and analysis, and conclusion of quality tests and measurements used in the QA rotation. - The logbook is to be reviewed during the supervisor meetings for formative feedback purposes and progress checks. **See logbook Appendix I for a list of activity requirements.**
	End Year Progress Test	- Eliminated 2025
	Structured Oral Exam	- SOE is used to assess the fellows' knowledge and as a practice/mock exam for the final exam. - All fellows (F1, F2) are required to attend at least two SOE sessions per level per academic year, held at the middle or end of the academic year. No later than the end of October. - The minimum number of SOE stations is four. - The results are used for formative feedback.
	Objective structured clinical examination	- Eliminated 2025
	Research Activities	- A clinical research project must be completed during the final raining program - F1 trainees are expected to submit a research proposal with IRB approval or TPC by the end of the academic year

Performance Evaluation and Requirements	Formative Assessment Tools	Important details (description & frequency related to the tool/academic year)
		- F2 fellows are required to meet at least one of the following for their research project: submit a publication in a peer-reviewed journal, submit an abstract for an oral or poster presentation in a scientific meeting, or submit research according to SCFHS criteria.
	Educational activity (e.g., journal club, M&M meeting, oral presentation)	- All fellows are required to attend the 40 academic half-day lectures per their level and participate in their activities. - All fellows are required to attend pediatric respiratory patient review and M&M meetings. - Each fellow is required to perform at least two presentations per year and review and present at least one journal club article. The fellow will be assessed after each EA session by a training supervisor/attending for feedback
	In-training evaluation report	The ITER is related to the discipline and rotation objectives and the stage and level of training. The ITER must be completed after repeated observations and feedback of the trainee's performance within two weeks of the end of each rotation. (**see attached ITER form**)

Refer to the SCFHS "Formative Assessment Tools List" for the description and conduction instructions of each Tool at www.scfhs.org.sa

LOGBOOK 2025 (Pediatric Respiratory Fellowship Program)

Name: ……

Level: ……

Institution ……

Program director: ……

Bronchoscopy: For both F1 and F2

- For the academic year of 2024, the fellowship program will be targeting 24 bronchoscopies per year for each fellow which means 40-50 bronchoscopies through the 2 academic years
- Two procedures can be counted in one patient
- The simulation courses will be counted

	Assistant in flexible bronchoscopy and lavage (5)	Perform flexible bronchoscopy under supervision (5)	Perform lavage under supervision (5)	Consent approval
MRN	1-	1-	1-	1-
Sign				
MRN	2-	2-	2-	2-
Sign				
MRN	3-	3-	3-	3-
Sign				
MRN	4-	4-	4-	4-
Sign				
MRN	5-	5-	5-	5-
Sign				
MRN	6-	6-	6-	6-
Sign				

Radiology:

30 Chest x-ray interpretations per year for each fellow

CT chest interpretation: 18 per year for F1 and 12 per year for F2

Lateral neck x-ray: 9 per year for F1 and 6 per year for F2

	Chest x-ray interpretation		CT scan chest interpretation	Lateral neck x-ray
MRN	1-	19	1-	1-
Sign				
MRN	2-	20	2-	2-
Sign				
MRN	3-	21	3-	3-
Sign				
MRN	4-	22	4-	4-
Sign				
MRN	5-	23	5-	5-
Sign				
MRN	6-	24	6-	6-
Sign				
MRN	7	25	7	7-
Sign				
MRN	8	26	8	8-
Sign				
MRN	9	27	9	9-

	Chest x-ray interpretation		CT scan chest interpretation	Lateral neck x-ray
Sign				
MRN	10	28	10	
Sign				
MRN	11	29	11	
Sign				
MRN	12	30	12	
Sign				
MRN	13		13	
Sign				
MRN	14		14	
Sign				
MRN	15		15	
Sign				
MRN	16		16	
Sign				
MRN	17		17	
Sign				
MRN	18		18	
Sign				
	Barium swallow > 3/year	VQ Scan >3/year	Fluoroscopy >3/Y	
MRN	1-	1-	1-	

	Chest x-ray interpretation		CT scan chest interpretation	Lateral neck x-ray
Sign				
MRN	2-	2-	2-	
Sign				
MRN	3-	3-	3-	
Sign				
MRN	4-			
Sign				
MRN	5-			
Sign				
MRN	6-			
Sign				

Lab:

- Blood gas interpretation: Minimum of 12 per year for each level
- Nitric oxide interpretation: Minimum of 3 tests per year for each level
- Performance of sweat chloride tests: Minimum of 3 tests for F1 and 3 for F2
- Interpretation of sweat chloride tests: Minimum of 6 per year for each level

	Blood gas interpretation (>12/YR)		Nitric oxide interpretation >3/Y	Perform sweat chloride test >6/Y	Interpretation of sweat chloride test >3/Y
MRN	1-	10	1-	1-	1-
Sign					
MRN	2-	11	2-	2-	2-
Sign					
MRN	3-	12			3-
Sign					
MRN	4-	13			4-
Sign					
MRN	5-	14			5-
Sign					
MRN	6-	15			6-
Sign					
MRN	7	16			7-
Sign					
MRN	8	17			8-
Sign					
MRN	9	18			9-
Sign					
MRN					10-
Sign					

Sleep rotation:

	PSG interpretation >6 rotation for F2	Perform hooking >2/rotation for F2	Titration of CPAP and BiPAP (>3/rotation For F2)	Overnight pulse oximetry interpretation (>3/rotation)
MRN	1-	1-	1-	1-
MRN	2-	2-	2-	2-
MRN	3-			3-
MRN	4-			4-
MRN	5-			5-
MRN	6-			MSLT interpretation ≥1/m for sleep rotation- F2 1
MRN	7-			
MRN	8-			
MRN	9-			
MRN	10-			
Sign				

Pulmonary lab:

- Standard spirometry (pre and post challenge): minimum of 15/year for F1 and 6 /year for F2
- Complete PFT = including spirometry (pre and post), lung volume, DLCO, MIPs and MEPs
- Minimum of 2 for each remaining component

	PFT interpretation (>15/rotation)		Six-minute Walk test interpretation (>2/rotation)
MRN	1-	9-	1-
Sign			
MRN	2-	10-	2-
Sign			Perform lung volume (plethysmography)> 5/ rotation
MRN	3-	11-	1- 2- 3- 4- 5- Perform spirometry >2/rotation 1- 2-
Sign			
MRN	4-	12-	
Sign			
MRN	5-	13-	
Sign			
MRN	6-	15--	Complete PFT
Sign			1-
MRN	7-	15-	2-
Sign			
MRN	8-	16-	
Sign			

Asthma devices:

	Master MDI technique (>15/rotation for F1 and 10/F2)	Master nebulization technique (>5/rotation)
MRN	1-	1-
Sign		
MRN	2-	2-
Sign		
MRN	3-	3-
Sign		
MRN	4-	4-
Sign		
MRN	5-	5-
Sign		
MRN	6-	
Sign		
MRN	7-	
Sign		
MRN	8-	
Sign		
MRN	9-	
Sign		
MRN	10-	
Sign		

	Master MDI technique (>15/rotation for F1 and 10/F2)	Master nebulization technique (>5/rotation)
MRN	11-	
Sign		
MRN	12	
Sign		
MRN	13	
Sign		
MRN	14	
Sign		
MRN	15	
Sign		

Adult pulmonology rotation minimum of 2/rotation for F2

Observe bronchoscopy and taking biopsies	
MRN	
Sign	
MRN	
Sign	

Allergy and immunology rotation for F2

	Master skin test interpretation (Minimum 4/rotation)
MRN	1-
Sign	
MRN	2-
Sign	
MRN	3-
Sign	
MRN	4-
Sign	

PICU rotation for R1

	Perform successful intubation (≥2/ rotation)	Perform a line/central line (under supervision) (≥1/ rotation)	Perform thoracentesis (under supervision) (≥1/ rotation)
MRN	1-	1-	1-
Sign			
MRN	2-		
Sign			

ENT rotation

	Assess rigid bronchoscopy	Change tracheostomy tube
MRN	1	1
Sign		
MRN	2	2
Sign		

Table 10. Example of F1 Promotion Exam Blueprint

Category	Proportions
Pediatric respiratory	50%
Principles of Imaging	10%
Emergency and intensive care	5 %
ENT medicine	5%
Sleep medicine	5%
Anatomy and Physiology	10%
Allergy and immunology	5%
Adult medicine	2.5%
Ethics	2.5%
Informatics	2.5%
Research Methodology	2.5%

Refer to the commission website, www.scfhs.org.sa, for updated examination details and a blueprint.

2.3 Promotion of the Trainee

Trainees must demonstrate compliance by completing the necessary WBAs and educational activities in accordance with curriculum timelines and expectations. Failure to meet these requirements may result in disciplinary actions, including the possibility of repeating part or all of the academic year.

A trainee may be promoted to the next level upon meeting the following criteria:

A. Fulfillment of the minimum required compliance for all designated WBAs and educational activities

B. Completion of the **Annual In-Training Evaluation Report** (**AITER**) by the program director, which must include:

- An overview of the trainee's compliance with the WBAs and educational activities
- Feedback and comments from relevant educators
- A final recommendation from the program director

The **Program Training Committee** will then vote on one of the following promotion outcomes:

1. Unconditional promotion to the next level.
2. **Conditional promotion** with a required remediation program during the upcoming training year.
3. **Withholding promotion**, requiring the trainee to **repeat the current level,** accompanied by a remediation program.

3. Summative Assessment

3.1 General Principles

Summative assessment is primarily designed to support informed decisions regarding a trainee's overall competency. Unlike formative assessment, it is not intended to provide ongoing, constructive feedback. For additional information, refer to the **General Bylaws of Training in Postgraduate Programs and General Assessment Bylaws** (available online at www.scfhs.org.sa). To be eligible for the final examinations, trainees must successfully complete all required training rotations and obtain a **Certification of Training Completion**.

3.2 Final In-training Evaluation Report (FITER)

The Final In-Training Evaluation Report (FITER) serves as the basis for awarding the Certificate of Training Program Completion and determining eligibility to sit for the final subspecialty examinations.

In addition to meeting other training completion requirements and registration criteria for the final board examination, the FITER is prepared by the program director during the trainee's final year. It provides a comprehensive evaluation of the trainee's performance.

Based on the FITER submitted in the final month of training, the **Program Training Committee** will issue one of the following recommendations:

1. **Approved** - It provides a comprehensive evaluation of the trainee's performance.
2. **Partially approved** - Training requirements will be considered complete upon successful completion of a remediation program lasting no more than three months.
3. **Not approved** - Training requirements not completed, with a recommendation to undergo a remediation program for an additional training year.

3.3 Certification of Training Completion

To be eligible to sit for the final specialty examinations, each fellow must obtain a **Certification of Training Completion**. In accordance with the **General Bylaws of Training in Postgraduate Programs** and the relevant executive policy (available at www.scfhs.org), this certification will be granted once the following criteria are met:

1. Successful completion of all training rotations.
2. **Fulfillment of training requirements** (e.g., research), as outlined in the FITER and approved by the Scientific Committee.
3. **Clearance from SCFHS Training Affairs**, confirming completion of tuition payments and universal topic requirements.

The **Certification of Training Completion** will be issued and formally approved by the supervisory committee or its equivalent, in accordance with SCFHS policies.

3.4 Final Examination

The final specialty examination is a **summative assessment** that leads to the awarding of **subspecialty certification**. It consists of two components:

1. **Final written exam:** To be eligible, fellows must first obtain the **Certification of Training Completion**. This examination evaluates the fellow's theoretical knowledge, including recent advances, and problem-solving skills in pediatric respiratory medicine. It is conducted once a year in a multiple-choice question (MCQ) format (see Tables 11&12).

2. **Final clinical/Practical Exam:** Eligibility for the final clinical/practical exam requires to passing the final written examination. This component assesses the fellow's clinical skills, decision-making ability, and overall competency as a pediatric respirologist. It is conducted **once a year** in the form of an Objective Structured Clinical Examination (OSCE) and Structured Oral Examination (SOE).

The number of exam items, exam format, eligibility criteria, and passing scores are determined in accordance with the Commission's training and examination regulations. Updated examination details and blueprints are available on the Commission's official website: www.scfhs.org.sa.

Table 11. Example of written exam blueprint

Contents						
Categories	Sections	Proportions	Medical science	Diagnosis	Management	Investigations
General Pediatric Respiratory Medicine 70%	Asthma	10%	2	2	4	2
	Pneumonia	10%	2	2	3	3
	CF	10%	2	2	4	2
	PCD	10%	2	2	3	3
	ILD	5%	1	1	2	1
	Pulmonary HTN	5%	1	1	2	1
	BPD/CLD	5%	1	1	2	1
	Neuromuscular disease	5%	1	1	2	2
	Physiology	5%	1	1	2	1

Contents						
Categories	Sections	Proportions	Medical science	Diagnosis	Management	Investigations
	Congenital lung disease/chest deformity	5%	1	1	2	1
Sleep 10%	SDB	4%	1	1	1	1
	OSA	4%	1	1	1	1
	CCHV	2%	0.5	0.5	0.5	0.5
Bronchoscopy 10%	Lavage Visualization	5% 5%	1 1	1 1	2 2	1 1
others 10%	Research, ethics, professionalism, and patient safety	10%	5	0	5	0
	Total	100%				

*Main blueprint framework adapted from the American Board of Pediatrics.

For further details and updates on the final exams, please refer to the General Bylaws of Training in Postgraduate Programs and General Assessment Bylaws (available online: www.scfhs.org).

Table 12. Example of final clinical exam blueprint:

Section	Proportions
General Pediatric respiratory medicine	40%
Radiology	20%
Sleep medicine	10%
Applied clinical physiology	20%
Ethics and EBM	10%

For further details and updates on the final exams, please refer to the General Bylaws of Training in Postgraduate Programs and General Assessment Bylaws (available online: www.scfhs.org).

Table 13. Example of final clinical exam blueprint

		DIMENSIONS OF CARE				
		Health promotion & illness prevention 1±1 Station(s)	**Acute** 5±1 Station(s)	**Chronic** 3±1 Station(s)	**Psychological aspects** 1±1 Station(s)	**# Station(s)**
Domains For Integrated Clinical Encounter	**Patient care** 7±1 Station(s)	**1**	**4**	**2**		**7**
	Patient safety & procedural skills 1±1 Station(s)		**1**			**1**
	Communication & Interpersonal Skills 2±1 Station(s)			**1**	**1**	**2**
	Professional Behaviors 0±1 Station(s)					**0**
	Total Stations	**1**	**5**	**3**	**1**	**10**

*Main blueprint framework adapted from Medical Council of Canada Blueprint Project

For further details on final exams, please refer to general bylaws and executive policy of assessment (available online: www.scfhs.org).

Table 14. Summative Assessment Tools

Learning Domain	Summative Assessment Tools	Passing score
Knowledge	• Final Written Examination	• Final Written Examination is held once at the end of the two years of training; passing score is 70%.
Skills	• Objective Structured Clinical Examinations (OSCE) • Structured Oral Examinations (SOE)	• Passing the final written examination is a prerequisite for entry into the OSCE and SOE. To pass the clinical/practical exam, a borderline pass is required as a cumulative score across all stations (the number of stations will be determined by the examination committee).
Attitude	• FITER	• Each fellow must obtain a clear pass on the FITER from the program director at the end of the training period.

For further details and updates on the final exams, please refer to the General Bylaws of Training in Postgraduate Programs and General Assessment Bylaws (available online: www.scfhs.org).

XII. PROGRAM AND COURSES EVALUATION

The SCFHS applies various measures to evaluate the implementation of this curriculum. The training outcomes of this program will follow the QA framework endorsed by the Central Training Committee of the SCFHS. Resident assessment (both formative and summative) results will be analyzed and mapped to the curriculum content. Other indicators that will be incorporated are:

- Report of the annual fellows' satisfaction survey.
- Reports on fellows' evaluation of faculty members.
- Reports on fellows' evaluation of rotations.
- Reports from the annual survey of program directors.
- Data available from program accreditations.
- Reports on direct field communications with fellows and trainers.

Goal-Based Evaluation: The achievement of intended milestones will be evaluated at the end of each stage to assess the progress of curriculum delivery, and any deficiencies will be addressed in the following stage, utilizing the time devoted to fellow-selected topics and professional sessions.

In addition to subject-matter opinions and best practices from benchmarked international programs, the SCFHS will apply a robust method to ensure that this curriculum will utilize all data available during its revision in the future.

XIII. POLICIES AND PROCEDURES

This curriculum presents the means and materials and outlines the learning objectives that guide interactions between trainees and trainers to achieve the intended educational outcomes. The SCFHS provides a full set of **General Bylaws of Training in Postgraduate Programs** and **executive policies,** available on the official SCFHS website, which govern all training aspects of the training processes.

These regulations cover key areas, such as training, assessment, accreditation, admission, registration, formative assessment and promotion, examinations, trainee representation and support, duty hours, and leaves policies. All trainees, trainers, and supervisors are required to adhere to the most current versions of these bylaws and policies, accessible through the SCFHS website.

V. APPENDICES

A. Junior-level Competency-Metrix

B. Senior-level Competency-Metrix

C. Rotation objectives

First year: general respiratory rotation, pediatric intensive care, and pulmonary function test laboratory rotation and vacation.

Second year: general respiratory, pediatric sleep, allergy and immunology, adult pulmonary, ENT rotation Elective e.g. cardiology rotation and vacation.

A. Important forms

1- Minin-CEX form
2- Dops form
3- CbD form
4- ITER feedback
5- Respiratory activity evaluation form
6- Annual check list form
7- Complete respiratory fellowship training form
8- Logbook form
9- Feedback form

B. References

Appendix A: Junior-level Competency-Metrix

Junior-level Competency-Metrix: Used to map competency, learning domain and milestones (*content included here is just an example* of a Pediatrics fellowship rotation)

Training Year level	**Competency-Roles (with annotation of learning domains involved: K: knowledge, S: Skills, A: Attitude)**	**Professional activities related to specialty**					
		Conducting full patient clinical assessment	Managing Asthma at outpatient clinic	Managing patient undergoing procedures (bronchoscopy)	Managing febrile child	Managing unstable child	Compliance with documentation and proper reporting standards
F1	**Professional Expert**	Mastering history taking and physical examination K, S	Standard risk BLS Focused history K, S, A	Clinical and laboratory evaluation, hydration, NPO and risk assessment K, S	Assessing and managing febrile child K, S	Evaluate and manage unstable child (abnormal vital signs) K, S	Relevant documentation of daily patient care, prescriptions, discharge summaries K, S, A
	Communicator	Effectively communicating with patient and guardian K, S, A	Effectively communicating with parents and team members K, S, A	Informed consent K, S	Effectively communicating with patients, guardians, and team members K, S, A	Effectively communicating with patients, guardians, and team members K, S, A	Writing, dictation, and presentation skills K, S
	Collaborator		Multidisciplinary, teamwork S, A	Multidisciplinary, teamwork S, A	Seeking support from senior physicians when needed K, S, A	Seeking support from senior physicians when needed K, S, A	Interprofessional communication A

Training Year level	**Competency-Roles (with annotation of learning domains involved: K: knowledge, S: Skills, A: Attitude)**	**Professional activities related to specialty**					
		Conducting full patient clinical assessment	Managing Asthma at outpatient clinic	Managing patient undergoing procedures (bronchoscopy)	Managing febrile child	Managing unstable child	Compliance with documentation and proper reporting standards
	Advocate	Holistic approach and preventive medicine K, S, A		Patient safety K, S, A	Patient safety K, S, A	Patient safety K, S, A	Quality improvement K, S, A
	Leader	Time management S	Leading the team S, A		Lead the situation for patient best interest S, A	Lead the situation for patient best interest S, A	Quality assurance K, S, A
	Scholar			Evidence based practice K, S	Evidence based practice K, S	Evidence based practice K, S	
	Professional		Confidentiality, interprofessional relation A	Confidentiality,		interprofessional relation A	interprofessional relation A

Appendix B: Senior-level Competency Matrix

Senior-level Competency-Metrix: Used to map competency, learning domain and milestones

Training Year level	***Competency-Roles*** (with annotation of learning domains: **K**, knowledge; **S**. Skills; **A**. Attitude)	**Professional Activities Related to Specialty**					
		Conducting full patient clinical assessment	Managing CF at outpatient clinic	Managing patient undergoing procedures Pig tail insertion	Managing sick patients	Managing unstable child	Compliance with documentation and proper reporting standards
F2	**Professional Expert**	Mastering history taking and physical examination K, S	Standard risk BLS Focused history K, S, A	Clinical and laboratory evaluation, hydration, NPO and risk assessment K, S	Assessing and managing sick patients K, S	Evaluate and manage unstable child (abnormal vital signs) K, S	Relevant documentation of daily patient care, prescriptions, discharge summaries K, S, A
	Communicator	Effectively communicating with patient and guardian K, S, A	Effectively communicating with parents and team members K, S, A	Informed consent K, S	Effectively communicating with patients, guardians, and team members K, S, A	Effectively communicating with patients, guardians, team members K, S,	Writing, dictation, and presentation skills K, S
	Collaborator	Supervise trainee and Seek support	Multidisciplinary, teamwork S, A	Multidisciplinary teamwork S, A	Seek support from senior physician K, S, A	Seek support from senior physicians	Interprofessional communication

Training Year level	*Competency-Roles* (with annotation of learning domains: **K**, knowledge; **S**. Skills; **A**. Attitude)	**Professional Activities Related to Specialty**					
		Conducting full patient clinical assessment	Managing CF at outpatient clinic	Managing patient undergoing procedures Pig tail insertion	Managing sick patients	Managing unstable child	Compliance with documentation and proper reporting standards
		from senior physicians when needed				K, S,	A
	Advocate	Holistic approach and preventive medicine K, S, A	Patient safety K, S, A	Patient safety K, S, A	Patient safety K, S, A	Patient safety K, S, A	Quality improvement K, S, A
	Leader	Time management S	Leading the team S, A	Lead the situation for patient best outcome S, A	Lead the situation for patient best outcome S, A	Lead the situation for patient best outcome S, A	Quality assurance K, S, A
	Scholar		Evidence based practice K, S	Evidence based practice K, S	Evidence based practice K, S	Evidence based practice K, S	
	Professional	Confidentiality	Confidentiality	Confidentiality	Confidentiality	Confidentiality	Interprofessional relation A

Appendix C: Rotation objectives

ITER Rotation Specific Template Form

Saudi Commission for Health Specialties	**ITER Form (Junior Level) – Pediatric Respiratory Fellowship Program** **General Respiratory Rotation (F1)** Evaluated By : Evaluator's name Evaluating : Person (role) or moment's name (if applicable) Dates : Start date to end date

In-Training Evaluation Report - General Respiratory (F1)

ITER Rating scale:

- NA: Not Applicable or no opportunity to evaluate during this rotation.
- Performance that Does not Meet Expectations (<50%): Trainee consistently struggles to meet basic requirements, require significant development and intervention in various aspects of training and patient care. Performance consistently lags behind their expected competency level.
- Borderline Performance (>50-69.99%): Trainee met some criteria satisfactorily, but there are notable deficiencies in their overall performance that require attention and development. Performance frequently falls below the expected competency level, indicating a need for improvement in some areas.
- Performance that Meets Expectations (>70-89.99%): Trainee fulfilled their role competently, met the required criteria effectively and contributed to their responsibilities. Performance consistently aligns with the expected competency level.
- Performance that Exceeds Expectations (>90%): Trainee constantly demonstrates exceptional clinical skills, professionalism, and commitment to continuous learning. Performance significantly exceeds the expected competency level.

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
A. CLINICAL MEDICAL EXPERT					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
List of rotation specific competencies: To provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Fellows will: 1. Gather essential and accurate patient information. 2. Organize and prioritize responsibilities to deliver safe, effective, and efficient care. 3. Ensure seamless care transitions through effective transfer of care. 4. Conduct patients and family interviews with attention to behavioral, psychosocial, environmental, and family-related factors influencing disease. 5. Perform complete and accurate physical examinations. 6. Make diagnostic and therapeutic decisions that reflect sound clinical judgment. 7. Develop and implement management plans in consultation with a supervisor. 8. Prescribe pulmonary-related medical interventions. 9. Perform pulmonary-related procedures under appropriate supervision. 10. Counsel patients and families under supervision. 11. Deliver effective health maintenance and anticipatory guidance. 12. Use information technology to enhance patient care (aligned with Practice-based Learning and Improvement). 13. Serve as an appropriate role model in clinical settings. 14. Demonstrate sufficient knowledge of basic and clinically relevant sciences in pediatric respiratory medicine: - Accurately assess the nature, acuity, and severity of clinical problems - Obtain a thorough respiratory history Perform a thorough respiratory system examination - Critically analyze laboratory results Accurately - Interpret chest X-rays					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
- Preliminary Interpret chest CTs before final reports and discussion - Basically Interpret/analyze spirometry - Interpret lung volumes - Read basics of infant pulmonary function tests, exhaled nitric oxide test results, airway oscillation study results, neonatal oximetry studies - Create a pertinent differential diagnosis based on the above knowledge/skills - Design a well-thought-out plan of management for the most likely diagnosis - Discuss/defend choices with supervising faculty - Decide with all team members the best plan of care - Discuss and educate patient-family regarding diagnosis-plan -Document-write timely and thorough note for EMR and referring physician - Follow up all pending and planned studies					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
***Medical Knowledge:** About established and evolving respiratory sciences and the application of this knowledge to patient care. Fellows will: 1. Demonstrate sufficient knowledge of the basic and clinically supportive sciences appropriate to pediatric pulmonology 2. Critically evaluate and apply current medical information and scientific evidence for patient care (combined with Practice-based Learning and Improvement Specifically, the Pediatric Pulmonary Fellow will: - Critically analyze laboratory results - Accurately Interpret chest X-rays - Basic interpretation of chest CTs - Interpret/analyze spirometry - Interpret lung volumes - Interpret exhaled nitric oxide test results - Interpret airway oscillation study results - Interpret neonatal oximetry studies - Create a pertinent differential diagnosis based on the above knowledge/skills - Design a well thought out plan of management for the most likely diagnosis. - Demonstrate a basic understanding of home ventilator management. - Interpret blood gas values - Build basic knowledge about flexible bronchoscopy, including pre- and post-procedure care, all related information, and preparation.					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
- Understand the physiology and pathophysiology, etiology, development, clinical course, and sequelae of the major respiratory disorders.					
Practice-Based Learning and Improvement involves investigation and evaluation of one's own patient care, appraisal and assimilation of scientific evidence, and improvements in patient care. Pediatric pulmonary fellows will: 1. Identify strengths, deficiencies, and limits in one's knowledge and expertise 2. Set learning and improvement goals 3. Read around the daily cases is critical for improvement and build knowledge level based on practice. 4. Identify and perform appropriate learning activities to guide personal and professional development 5. Systematically analyze practice using quality improvement methods with the goal of practice improvement					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
6. Incorporate formative evaluation feedback into daily practice 7. Locate, appraise, and assimilate evidence form scientific studies related to their patient's health problems 8. Use information technology to optimize learning and care delivery 9. Develop the necessary skills to be an effective teacher 10. Participate in the education, of patients, families, students, residents, and other health professionals 11. Take primary responsibility for lifelong learning to improve knowledge, skills, and practice performance through familiarity with general and experience-specific goals and objectives and attendance at conferences 12. Use scientific methods and evidence to investigate, evaluate, and improve one's patient care practice in the inpatient setting 13. Identify personal learning needs, systematically organize relevant information resources for future reference, and plan for continuing acquisition of knowledge and skills 14. Use knowledge and skills of evidence-based medicine to efficiently search for, appraise and utilize the best evidence					
B. COMMUNICATOR 1. Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds 2. Demonstrate the insight and understanding into emotion and human response to emotion that allow one to appropriately develop and manage human interactions 3. Communicate effectively with physicians, other health professionals, other team members, and health related agencies. 4. Work effectively as a member of a health care team or other professional group. 5. Maintain comprehensive, timely, and legible medical records, if applicable					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
6. Demonstrate effective teaching of students, pediatric residents, colleagues, and other professionals - Use interpreter services, when necessary, - Write/dictate complete and timely clinic notes/letters - Deliver well-organized, clear, understandable lectures to residents, medical students and presentations within the division, department and outside - Demonstrate formative evaluation feedback in daily practice					
C. COLLABORATOR - Works effectively in a team environment with the medical team, nurses, respiratory staff, and other healthcare professionals. - Work with others to assess, plan, provide, and integrate care of the patient - Act in a consultative role to other physicians and health professionals					
D. LEADER - Serves in administration and leadership roles as appropriate - Appropriate and effective use of healthcare resources. - Shows effective time and task management skills - Manage organization between all team members, roles of residents, interns, students and organize team dynamics					
E. HEALTH ADVOCATE - Offers advocacy on behalf of patients at practice and general population levels. - Able to identify the socioeconomical, environmental, and biological factors that influence patient's adherence, and overall health of patients and					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
society. - Respond to the needs of the communities or populations they serve by advocating with them for system-level change in a socially accountable manner "volunteering" - Promote patient safety					
F. SCHOLAR - Attends and contributes to rounds, seminars, grand rounds, and conferences. - Design effective educational activities - Apply a process of ongoing self-evaluation and personal performance improvement					
G. PROFESSIONAL - Delivers the highest quality of care with integrity & compassion. - Recognize limitations and seeks advice and consultations when necessary - Reflects the highest standards of excellence in clinical care and ethical conduct. - Fellows must arrive at Morning Report on time and dress appropriately for patient care. When requested, fellows should model and teach other students or pediatric residents					

Work tools for General Respiratory (F1)

Workplace based assessment and other activities	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)	Comments
*CbD 1						
*CbD 2						
*CbD 3						

*Mini-CEX 1						
*Mini-CEX 2						
***DOPS 1**						
***DOPS 2**						
*Topic Presentation 1						

This rotation needs a minimum of 2 CbDs, 2 mini CEX, and one DOPS

*Did you have an opportunity to meet with this trainee to discuss their performance and action plan? (for the evaluator to answer)

- Yes
- No

*Did you have an opportunity to discuss your performance and action plan with your preceptor/supervisor? (for the trainee to answer)

- Yes
- No

Please enter any comments you have (if any) on this evaluation. (for the trainee to answer)

……
……
……
……

* Feedback Comments (Verbal and written feedback is a mandatory component of this assessment, include areas of strengths/areas for improvement) (for the trainer to answer)

……
……
……
……

*Agreed Action Plan:

……
……
……
……

* Indicates a mandatory response

ITER Rotation Specific Template Form

Saudi Commission for Health Specialties	**ITER Form (Junior Level) – Pediatric Respiratory Fellowship Intensive Care Rotation (F1)** Evaluated By :Evaluator's name. Evaluating :Person (role) or moment's name (if applicable) Dates :Start date to end date

In-Training Evaluation Report - Intensive Care Rotation (F1)

ITER Rating scale:

- NA: Not Applicable or no opportunity to evaluate during this rotation.
- Performance that Does not Meet Expectations (<50%): Trainee consistently struggles to meet basic requirements, require significant development and intervention in various aspects of training and patient care. Performance consistently lags behind their expected competency level.
- Borderline Performance (>50-69.99%): Trainee met some criteria satisfactorily, but there are notable deficiencies in their overall performance that require attention and development. Performance frequently falls below the expected competency level, indicating a need for improvement in some areas.
- Performance that Meets Expectations (>70-89.99%): Trainee fulfilled their role competently, met the required criteria effectively and contributed to their responsibilities. Performance consistently aligns with the expected competency level.
- Performance that Exceeds Expectations (>90%): Trainee constantly demonstrates exceptional clinical skills, professionalism, and commitment to continuous learning. Performance significantly exceeds the expected competency level.

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
A. CLINICAL MEDICAL EXPERT **List of rotation specific competencies:** As Medical Experts, physicians integrate all the CanMEDS roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care					
At the end of one-month Pediatric Intensive Care Unit rotation, pediatric pulmonary fellows are expected to: • Define respiratory failure and describe its various causes. • Distinguish between severe obstructive and restrictive lung diseases, outlining key differentiating measures.					
• Understand the role of ventilation in various physiological processes, including acid-base balance, ventilation-perfusion matching, gas exchange, and pulmonary blood flow.					
• Describe basic mechanical ventilation modes, both invasive and non-invasive. • Comprehend lung-protective ventilation strategies and their physiological basis. • Identify potential complications associated with invasive and non-invasive ventilation.					
• Demonstrate knowledge of the physiology, pathophysiology, diagnosis, and management of common pediatric intensive care conditions,					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
including status asthmaticus, acute respiratory distress syndrome (ARDS), pneumothorax, pulmonary hypertension crisis, and severe diffuse alveolar hemorrhage					
B. COMMUNICATOR Physicians effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter. As Communicators, fellows will facilitate the doctor-patient relationship: • The fellows will establish rapport with children and their parents in the outpatient and inpatient services, and with the rest of the members of the multidisciplinary team					
• Communicate effectively with patients and their families					
• Able to maintain clear, accurate and appropriate records					
• Write progress notes and respiratory recommendations are well organized and legible.					
• Provides appropriate medical support at various transitional care settings.					
• Discharge counseling is conducted and documented promptly and accurately.					
Patient Care: At the end of the one-month Pediatric Intensive Care Unit rotation, fellows are expected to be able to: • Recognize respiratory failure and manage patients on both non-invasive and non-invasive mechanical ventilatory support and apply the principles of lung-protective strategies. • Apply the appropriate diagnostic and management strategies for common respiratory					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
conditions in pediatric intensive care patients, including acute lung injury, status asthmaticus, pulmonary infections, bronchiolitis, pneumothorax, pulmonary hypertension, pulmonary edema.					
C. COLLABORATOR • Works effectively in a team environment with the medical team, nurses, respiratory staff, and other healthcare professionals.					
• Communicates efficiently with HCP, preceptors, colleagues, and caregivers.					
Recognize and respect the diversity of roles, responsibilities, and competences of other health professionals in the management of the respiratory patient					
Work with others to assess, plan, provide, and integrate care of the patient					
D. LEADER • Serves in administration and leadership roles as appropriate					
• Appropriate & effective use of healthcare resources.					
• Shows effective time and task management skills					
• Manages conflicts effectively during the learning experience					
E. HEALTH ADVOCATE • Offers advocacy on behalf of patients at practice and general population levels.					
• Able to identify the socioeconomical, environmental, and biological factors that influence patient's adherence, and overall health of patients and society.					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
• Respond to community and population needs by advocating for system-level change in a socially accountable manner (e.g., through volunteering).					
Promote patient safety					
F. SCHOLAR • Attends and contributes to rounds, seminars, and other learning events					
• Design effective educational activities					
• Apply a process of on-going self-evaluation and personal performance improvement					
Critically appraise the evidence to address a clinical question					
G. PROFESSIONAL • Delivers high-quality care with integrity & compassion.					
• Recognize limitations and seeks advice and consultations when necessary					
• Reflects the highest standards of excellence in clinical care and ethical conduct. **Evaluation Tools:** • PICU Attending Evaluation • Participation in Conferences and Rounds (including fellow presentation of cases/topics) • Self-Assessment					

Work tools for Intensive Care (F1)

Workplace Based Assessment and other Activities	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets Expectations (≥70-89.99%)	Exceeds expectations (≥90%)	Comments
* CbD 1						
* Mini-CEX 1						
*** DOPS 1**						
* Topic Presentation 1						
* Logbook						

A minimum of one CBD, mini CEX and a possible one DOPs, a topic presentation, logbook)

*Did you have an opportunity to meet with this trainee to discuss their performance and action plan? (for the evaluator to answer)

○ Yes ○ No

*Did you have an opportunity to discuss your performance and action plan with your preceptor/supervisor? (for the trainee to answer)

○ Yes ○ No

Please enter any comments you have (if any) on this evaluation. (for the trainee to answer)

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* Feedback Comments (Verbal and written feedback is a mandatory component of this assessment, include areas of strengths/areas for improvement) (for the trainer to answer)

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*Agreed Action Plan:

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* Indicates a mandatory response

ITER Rotation Specific Template Form

Saudi Commission for Health Specialties	**ITER Form -(Junior level)- Pediatric Respiratory Fellowship (Pulmonary Function Test (F1)** Evaluated By: Evaluator's name Evaluating: Person (role) or moment's name (if applicable) Dates : Start date to end date

In-Training Evaluation Report - Pulmonary Function Test Rotation

ITER Rating scale:

- NA: Not Applicable or no opportunity to evaluate during this rotation.
- Performance that Does not Meet Expectations (<50%): Trainee consistently struggles to meet basic requirements, require significant development and intervention in various aspects of training and patient care. Performance consistently lags behind their expected competency level.
- Borderline Performance (>50-69.99%): Trainee met some criteria satisfactorily, but there are notable deficiencies in their overall performance that require attention and development. Performance frequently falls below the expected competency level, indicating a need for improvement in some areas.
- Performance that Meets Expectations (>70-89.99%): Trainee fulfilled their role competently, met the required criteria effectively and contributed to their responsibilities. Performance consistently aligns with expected competency level.
- Performance that Exceeds Expectations (>90%): Trainee constantly demonstrates exceptional clinical skills, professionalism, and commitment to continuous learning. Performance significantly exceeds expected competency level.

	NA	**Does not meet expectations (<50%)**	**Borderline (≥50-69.99%)**	**Meets expectations (≥70-89.99%)**	**Exceeds expectations (≥90%)**
A. clinical skills and knowledge					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
• Obtains relevant information about present and past illness and medication history including medications taken before the tests					
• Perform proper patient preparation before the tests including reviewing the indication and limitation of the test					
• Demonstrate the ability to explain what is considered the normal range of spirometry values • Describe the flow volume loop and changes with airway obstruction pre and post bronchodilator and know how to perform spirometry					
• Recognize the principles and limitation know helium dilution measurement of lung volume. • Demonstrate the ability to perform a measurement of FRC using helium dilution					
• Recognize the principle and limitations of nitrogen washout measurement of lung volume					
• Recognize the principles of pressure and volume plethysmography • Demonstrate proper technique of performing test					
• Recognize and demonstrate how to measure inspiratory and expiratory muscle strength and the indications for when to measure them					
• Explain the methods of measuring diffusion capacity • Recognize the indications for measuring DLCO • Calculate the correction of DLCO for lung volumes and hemoglobin • Know the differential diagnosis for low values					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
• Describe the rationalization for bronchoprovocation testing • Contrast the different types of challenges implemented • Interpret what constitutes a positive response and the role of PC20 and PD20 • Predict the possible complications and contraindications for bronchoprovocation testing					
• Recognize indications for measuring exercise tolerance versus exercise challenge (EIA) • Contrast the various methods used to test exercise tolerance • Recognize what criteria constitutes a positive response. Predict the complications and contraindications to exercise testing					
B. **COMMUNICATOR** • Communicates effectively with patients and their families					
• Able to correctly validate the patient bio data before performing the test					
• Written PFT reports are accurate and organized					
C. COLLABORATOR • Works effectively in a team environment with the medical team, respiratory care team and patient nurse					
• Communicates efficiently with HCP, preceptors, colleagues, and caregivers					
D. LEADER • Serves in administration and leadership roles as appropriate					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
• Appropriate & effective use of healthcare resources					
• Shows effective time and task management skills					
• Manages conflicts effectively during the learning experience					
E. HEALTH ADVOCATE • Offers advocacy on behalf of patients at practice and general population levels					
• Able to identify the socioeconomical, environmental, and biological factors that influence patient's adherence, and overall health of patients and society					
• Respond to the needs of the communities or populations they serve by advocating with them for system-level change in a socially accountable manner "volunteering"					
F. SCHOLAR • Attends and contributes to rounds, seminars, and other learning events					
• Contributes to the education of patients, junior residents, house staff, and students					
• Design effective educational activities					
• Apply a process of on-going self-evaluation and personal performance improvement					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
• Contribute to the creation and dissemination of knowledge and practices applicable to health					
G. PROFESSIONAL • Delivers the highest quality of care with integrity & compassion					
• Recognize limitations and seeks advice and consultations when necessary					
• Reflects the highest standards of excellence in clinical care and ethical conduct					

Work tools for Pulmonary Function Test (F1)

Workplace Based Assessment and other Activities	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)	Comments
*CbD 1						
* DOPs 1						
*Mini-CEX 1						
* Topic presentation 1						

This rotation needs a minimum of 1 CbD, or 1 mini CEX, or one DOPs or a topic presentation, and logbook

*Did you have an opportunity to meet with this trainee to discuss their performance and action plan? (for the evaluator to answer)

- Yes
- No

*Did you have an opportunity to discuss your performance and action plan with your preceptor/supervisor? (for the trainee to answer)

- Yes
- No

* Feedback Comments (Verbal and written feedback is a mandatory component of this assessment, include areas of strengths/areas for improvement)

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*Agreed Action Plan:

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* Indicates a mandatory response

ITER Rotation Specific Template Form

Saudi Commission for Health Specialties	**ITER Form (senior Level) – Pediatric Respiratory Fellowship General Respiratory Rotation (F2)** Evaluated By: Evaluator's name Evaluating : Person (role) or moment's name (if applicable) Dates : Start date to end date

In-Training Evaluation Report - General Respiratory Rotation (F2)

ITER Rating scale:

- NA: Not Applicable or no opportunity to evaluate during this rotation.
- Performance that Does not Meet Expectations (<50%): Trainee consistently struggles to meet basic requirements, require significant development and intervention in various aspects of training and patient care. Performance consistently lags behind their expected competency level.
- Borderline Performance (>50-69.99%): Trainee met some criteria satisfactorily, but there are notable deficiencies in their overall performance that require attention and development. Performance frequently falls below the expected competency level, indicating a need for improvement in some areas.
- Performance that Meets Expectations (>70-89.99%): Trainee fulfilled their role competently, met the required criteria effectively and contributed to their responsibilities. Performance consistently aligns with expected competency level.
- Performance that Exceeds Expectations (>90%): Trainee constantly demonstrates exceptional clinical skills, professionalism, and commitment to continuous learning. Performance significantly exceeds expected competency level.

	NA	**Does not meet expectations (<50%)**	**Borderline (≥50-69.99%)**	**Meets Expectations (≥70-89.99%)**	**Exceeds Expectations (≥90%)**
A. CLINICAL MEDICAL EXPERT					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets Expectations (≥70-89.99%)	Exceeds Expectations (≥90%)
List of rotation specific competencies: To provide Patient Care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Fellows will: 1. Gather essential and accurate information about the patient. 2. Organize and prioritize responsibilities to provide patient care that is safe, effective, and efficient. 3. Provide transfer of care that ensures seamless transitions. 4. Interview patients and families about the particulars of the medical condition for which they seek care, with specific attention to behavioral, psychosocial, environmental, and family unit correlates of disease 5. Perform complete and accurate physical examinations 6. Make informed diagnostic and therapeutic decisions that result in optimal clinical judgment. 7. Develop and carry out management plans 8. Prescribe and perform all medical procedures 9. Counsel patients and families 10. Provide effective health maintenance and anticipatory guidance 11. Use information technology to optimize patient care (combined with Practice-based Learning and Improvement 12. Provide appropriate role modeling 13. Provide appropriate supervision Specifically, the Pediatric Pulmonary Fellow will: - Accurately assess the nature, acuity, and severity of the clinical problems - Obtain a thorough respiratory history Perform a thorough respiratory system examination - Critically analyze laboratory results Accurately - Interpret chest X-rays - Accurately Interpret chest CTs - Interpret/analyze spirometry - Interpret/analyze airway challenge study - Interpret lung volumes - Interpret cardiopulmonary exercise studies - Interpret infant pulmonary function tests - Interpret exhaled nitric oxide test results					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets Expectations (≥70-89.99%)	Exceeds Expectations (≥90%)
- Interpret airway oscillation study results - Interpret neonatal oximetry studies - Create a pertinent differential diagnosis based on the above knowledge/skills - -Design a well-thought-out plan of management for the most likely diagnosis - Discuss/defend choices with supervising faculty - Decide with all team members the best plan of care - Discuss and educate patient-family regarding diagnosis-plan --Document-write timely and thorough note for EMR and referring physician - Follow up all pending and planned studies - Lead the rounds as a junior consultant under supervision.					
***Medical Knowledge:** about established and evolving respiratory sciences and the application of this knowledge to patient care. Fellows will: 1. Demonstrate sufficient knowledge of the basic and clinically supportive sciences appropriate to pediatric pulmonology 2. Critically evaluate and apply current medical information and scientific evidence for patient care (combined with Practice-based Learning and Improvement Specifically, the Pediatric Pulmonary Fellow will: - Understand and interpret adherence recordings from CPAP and home apnea-bradycardia monitors - Critically analyze laboratory results - Accurately Interpret chest X-rays - Accurately Interpret chest CTs Interpret/analyze spirometry - Interpret/analyze airway challenge study - Interpret lung volumes Interpret cardiopulmonary exercise studies - Interpret infant pulmonary function tests - Interpret exhaled nitric oxide test results - Interpret airway oscillation study results - Interpret neonatal oximetry studies - Create a pertinent differential diagnosis based on the above knowledge/skills					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets Expectations (≥70-89.99%)	Exceeds Expectations (≥90%)
- Design a well-thought-out plan of management for the most likely diagnosis. - Demonstrate a basic understanding of home ventilator management. - Interpret arterial blood gas values - Fellows must arrive at Morning Report on time and dress appropriately for patient care When requested, fellow will model-teach other students or pediatric residents - Understand the appropriate coding and billing Become competent in diagnosing and treating the conditions listed below - Understand the physiology and pathophysiology, etiology, development, clinical course, and sequelae of the disorders listed below - Demonstrate understanding of ventilator management, CPAP and BiPAP indications and use - Deliver well-organized, clear, understandable lectures to residents and medical students when requested - Coordinate patient care to optimize urgency, efficiency, and clinical importance - Present and discuss patients at sign-in conference with multidisciplinary team					
Practice-Based Learning and Improvement involves investigation and evaluation of one's own patient care, appraisal and assimilation of scientific evidence, and improvements in patient care. Pediatric pulmonary fellows will: 1. Identify strengths, deficiencies, and limits in one's knowledge and expertise 2. Set learning and improvement goals 3. Identify and perform appropriate learning activities to guide personal and professional development 4. Systematically analyze practice using quality improvement methods with the goal of practice improvement 5. Incorporate formative evaluation feedback into daily practice 6. Locate, appraise, and assimilate evidence from scientific studies related to their patient's health problems.					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets Expectations (≥70-89.99%)	Exceeds Expectations (≥90%)
7. Use information technology to optimize learning and care delivery 8. Develop the necessary skills to be an effective teacher 9. Participate in the education, of patients, families, students, residents, and other health professionals 10. Take primary responsibility for lifelong learning to improve knowledge, skills, and practice performance through familiarity with general and experience-specific goals and objectives and attendance at conferences 11. Use scientific methods and evidence to investigate, evaluate, and improve one's patient care practice in the inpatient setting 12. Identify personal learning needs, systematically organize relevant information resources for future reference, and plan for continuing acquisition of knowledge and skills 13. Use knowledge and skills of evidence-based medicine to efficiently search for, appraise and utilize the best evidence Specifically, the pediatric pulmonary sub-**specialty resident will**: - Critically analyze laboratory results and continually update understanding via medical literature - Accurately Interpret chest X-rays and continually update understanding via medical literature - Accurately Interpret chest CTs and continually update understanding via medical literature - Interpret/analyze spirometry and continually update understanding via medical literature - Interpret/analyze airway challenge study and continually update understanding via medical literature - Interpret lung volumes and continually update understanding via medical literature - Interpret cardiopulmonary exercise studies and continually update understanding via medical literature - Interpret infant pulmonary function tests and continually update understanding via medical literature - Interpret exhaled nitric oxide test results - Interpret airway oscillation study results and continually update understanding via medical literature					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets Expectations (≥70-89.99%)	Exceeds Expectations (≥90%)
- Interpret neonatal oximetry studies and continually update understanding via medical literature - Create a pertinent differential diagnosis based on the above knowledge/skills - Design a well-thought-out plan of management for the most likely diagnosis and continually - update understanding via medical literature - Decide with all team members the best plan of care and continually update understanding via medical literature - Demonstrate a basic understanding of home ventilator management and continually update understanding via medical literature - Present and discuss CF patients seen in the clinic at multidisciplinary review and continually update understanding via medical literature - Locate, appraise, and assimilate evidence from scientific studies related to patient's health problems - Demonstrate formative evaluation feedback in daily practice Use information technology to optimize learning - Obtain at least 10 patient satisfaction surveys every six months and review with program directors					
B. COMMUNICATOR 1. Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds 2. Demonstrate the insight and understanding into emotion and human response to emotion that allow one to appropriately develop and manage human interactions 3. Communicate effectively with physicians, other health professionals, and health related agencies 4. Work effectively as a member or leader of a health care team or other professional group 5. Act in a consultative role to other physicians and health professionals 6. Maintain comprehensive, timely, and legible medical records, if applicable					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets Expectations (≥70-89.99%)	Exceeds Expectations (≥90%)
7. Demonstrate effective teaching of students, pediatric residents, colleagues, and other professionals 8. Discuss/defend choices with supervising faculty Decide with all team members best plan of care 7. Discuss and educate patient-family regarding diagnosis-plan Document-write timely and thorough note for EMR and referring physician 8. Demonstrate compassion, integrity, and respect for others 9. Demonstrate respect for patient privacy and autonomy Demonstrate sensitivity and responsiveness to the diverse families at Shands-UF including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation 10. Communicate effectively with patients and families across a broad range of socioeconomic and cultural backgrounds. 11. Communicate effectively with physicians, other health professionals, health related agencies and staff in clinic and division office 12. Use interpreter services, when necessary, Write/dictate complete and timely clinic notes/letters 13. Deliver well-organized, clear, understandable lectures to residents, medical students and presentations within the division, department and outside Demonstrate formative evaluation feedback in daily practice					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets Expectations (≥70-89.99%)	Exceeds Expectations (≥90%)
C. COLLABORATOR 1. Works effectively in a team environment with the medical team, nurses, respiratory staff, and other healthcare professionals. 2. Communicates efficiently with HCP, preceptors, colleagues, and caregivers. 3. Work with others to assess, plan, provide, and integrate care of the patient 4. Recognize and respect the diversity of roles, responsibilities, and competences of other health professionals in the management of the respiratory patient					
D. LEADER 1. Serves in administration and leadership roles as appropriate 2. Appropriate & effective use of healthcare resources. 3. Shows effective time and task management skills 4. Manages conflicts effectively during the learning experience 5. Manages organization between all team members, roles of residents, interns, students and organize team dynamics.					
E. HEALTH ADVOCATE 1. Offers advocacy on behalf of patients at practice and general population levels. 2. Able to identify the socioeconomical, environmental, and biological factors that influence patient's adherence, and overall health of patients and society. 3. Respond to the needs of the communities or populations they serve by advocating with them for system-level change in a socially accountable manner "volunteering"					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets Expectations (≥70-89.99%)	Exceeds Expectations (≥90%)
4. Promote patient safety					
F. SCHOLAR 1. Attends and contributes to rounds, seminars, and other learning events 2. Design effective educational activities 3. Apply a process of on-going self-evaluation and personal performance improvement 4. Critically appraise the evidence to address a clinical question					
G. PROFESSIONAL 1. Delivers the highest quality of care with integrity & compassion. 2. Recognize limitations and seeks advice and consultations when necessary 3. Reflects the highest standards of excellence in clinical care and ethical conduct. 4. Show maturity in taking care as a junior acting consultant					

Work tools for General Respiratory (F2)

Workplace Based Assessment and other Activities	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)	Comments
***CbD** 1						
***CbD** 2						
***Mini-CEX** 1						
***Mini-CEX** 2						

***DOPs 1**						
***Topic Presentation 1**						
***Logbook**						

This rotation: minimum of 2 CbD, 2 mini CEX, one DOPs, possible one topic presentation, logbook

*Did you have an opportunity to meet with this trainee to discuss their performance and action plan? (for the evaluator to answer)

○Yes ○No

*Did you have an opportunity to discuss your performance and action plan with your preceptor/supervisor? (for the trainee to answer)

○Yes ○No

Please enter any comments you have (if any) on this evaluation. (for the trainee to answer)

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* Feedback Comments (Verbal and written feedback is a mandatory component of this assessment, include areas of strengths/areas for improvement) (for the trainer to answer)

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*Agreed Action Plan:

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* Indicates a mandatory response

ITER Rotation Specific Template

FormSaudi Commission forHealth Specialties	**ITER Form (Senior Level) – Pediatric Respiratory Fellowship** **Allergy and immunology Rotation (F2)** Evaluated By:Evaluator's name Evaluating :Person (role) or moment's name (if applicable) Dates :Start date to end date

In-Training Evaluation Report - Allergy and Immunology Rotation (F2)

ITER Rating scale:

- NA: Not Applicable or no opportunity to evaluate during this rotation.
- Performance that Does not Meet Expectations (<50%): Trainee consistently struggles to meet basic requirements, require significant development and intervention in various aspects of training and patient care. Performance consistently lags their expected competency level.
- Borderline Performance (>50-69.99%): Trainee met some criteria satisfactorily, but there are notable deficiencies in their overall performance that require attention and development. Performance frequently falls below the expected competency level, indicating a need for improvement in some areas.
- Performance that Meets Expectations (>70-89.99%): Trainee fulfilled their role competently, met the required criteria effectively and contributed to their responsibilities. Performance consistently aligns with expected competency level.
- Performance that Exceeds Expectations (>90%): Trainee constantly demonstrates exceptional clinical skills, professionalism, and commitment to continuous learning. Performance significantly exceeds expected competency level.

	NA	Does not Meet Expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
A. CLINICAL MEDICAL EXPERT * List rotation specific competencies: As Medical Experts, physicians integrate all the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care					
*Be able to develop an understanding of normal anatomy, physiology, and pathophysiology of the respiratory system, skin, and immune system					
To understand pathogenesis of common allergic diseases and their management, bronchial asthma, food allergy, skin allergy (urticaria and anaphylaxis, drug allergy, eye allergy, primary immunodeficiencies e.g. severe combined immunodeficiency SCID, Bare cell lymphocyte, HIV etc.					
*Be able to perform pediatric skin testing					
*Be able to outline a differential diagnosis and formulate a plan of management for common allergic and immune disorders					
* Understand the role of tests and procedures used to investigate common allergic and immune disordered, e.g. plain chest radiographs, cat scan, RAST and immune work up (B cell defect, T cell subset, blastogenesis others)					
*Understand pharmacology of drugs used in common allergic diseases e.g. steroid, antihistamine, biological agents					
Understand pharmacology of drugs used in common immunodeficiency Understand when to ask for specific antibody titer Interpret the result of RAST test, leukocyte markers, phagocytic function test, immunoglobulin level test					

	NA	Does not Meet Expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
Demonstrate SC injection for different immune					
To be able to manage Asthma as acute case or at OPD, URTICRIA, drug and food allergy, allergic rhinitis, sinusitis, primary immunodeficiency, severe combined immunodeficiency-SCID, antibody deficiency					
B. COMMUNICATOR Physicians effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter. As Communicators, fellows will facilitate the doctor-patient relationship: • The fellows will establish rapport with children and their parents in the outpatient and inpatient services, and with the rest of the members of the multidisciplinary team					
Communicates effectively with patients and their families					
*Able to maintain clear, accurate and appropriate records					
Written progress notes and respiratory recommendations notes are well organized and legible.					
*Provides appropriate medical support at various transitional care settings.					
*Discharge counseling is conducted and documented promptly and accurately.					
C. COLLABORATOR *Works effectively in a team environment with the medical team, nurses, allergy and immunology staff, and other healthcare professionals.					

	NA	Does not Meet Expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
* Communicates efficiently with HCP, preceptors, colleagues, and caregivers.					
Recognize and respect the diversity of roles, responsibilities, and competences of other health professionals in the management of the respiratory patient					
Work with others to assess, plan, provide, and integrate care of the patient					
D. LEADER *Serves in administration and leadership roles as appropriate					
*Appropriate & effective use of healthcare resources.					
• Shows effective time and task management skills					
*2 Manages conflicts effectively during the learning experience					
E. HEALTH ADVOCATE *Offers advocacy on behalf of patients at practice and general population levels.					
* Able to identify the socioeconomical, environmental, and biological factors that influence patient's adherence, and overall health of patients and society.					
**Respond to the needs of the communities or populations they serve by advocating with them for system-level change in a socially accountable manner "volunteering"					
Promote patient safety					

	NA	Does not Meet Expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
F. SCHOLAR *Attends and contributes to rounds, seminars, and other learning events					
*Design effective educational activities					
*Apply a process of on-going self-evaluation and personal performance improvement					
Critically appraise the evidence to address a clinical question					
G. PROFESSIONAL * Delivers the highest quality of care with integrity & compassion.					
*. Recognize limitations and seeks advice and consultations when necessary					
**Reflects the highest standards of excellence in clinical care and ethical conduct. EVALUATION BY ATTENDING ALLERGIC /IMMUNOLOGIST AT END OF ROTATION					

Work tools for Allergy and Immunology (F2)

Workplace Based Assessment and other Activities	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)	Comments
*CbD 1						
* Mini-CEX 1						
*** DOPs 1**						
* Topic Presentation 1						
***Logbook**						

A minimum of one CbD, mini CEX, potential one DOPs or a topic presentation, and log book

*Did you have an opportunity to meet with this trainee to discuss their performance and action plan? (for the evaluator to answer)

○Yes ○No

*Did you have an opportunity to discuss your performance and action plan with your preceptor/supervisor? (for the trainee to answer)

○Yes ○No

Please enter any comments you have (if any) on this evaluation. (for the trainee to answer)

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* Feedback Comments (Verbal and written feedback is a mandatory component of this assessment, include areas of strengths/areas for improvement) (for the trainer to answer)

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*Agreed Action Plan:

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* Indicates a mandatory response

ITER Rotation Specific Template Form

Saudi Commission for Health Specialties	**ITER Form (Senior level) – Pediatric Respiratory Fellowship Program Adult Respiratory (F2)** Evaluated By:Evaluator's name. Evaluating : Person (role) or moment's name (if applicable) Dates : Start date to end date

In-Training Evaluation Report - Adult Respiratory Rotation (F2)

ITER Rating scale:

- NA: Not Applicable or no opportunity to evaluate during this rotation.
- Performance that Does not Meet Expectations (<50%): Trainee consistently struggles to meet basic requirements, require significant development and intervention in various aspects of training and patient care. Performance consistently lags behind their expected competency level.
- Borderline Performance (>50-69.99%): Trainee met some criteria satisfactorily, but there are notable deficiencies in their overall performance that require attention and development. Performance frequently falls below the expected competency level, indicating a need for improvement in some areas.
- Performance that Meets Expectations (>70-89.99%): Trainee fulfilled their role competently, met the required criteria effectively and contributed to their responsibilities. Performance consistently aligns with expected competency level.
- Performance that Exceeds Expectations (>90%): Trainee constantly demonstrates exceptional clinical skills, professionalism, and commitment to continuous learning. Performance significantly exceeds expected competency level.

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
A. CLINICAL MEDICAL EXPERT					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
* List rotation specific competencies: As Medical Experts, physicians integrate all the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care					
*Be able to develop an understanding of normal anatomy, physiology, and pathophysiology of the respiratory system					
Develop knowledge of common respiratory diseases and their management, bronchial asthma, pneumonia, pulmonary TB, obstructive sleep apnea, bronchiectasis, air leak etc.					
*Be able to perform respiratory physical examination and differentiate normal from abnormal findings					
*Be able to outline a differential diagnosis and formulate a plan of management					
* Understand the role of tests and procedures used to investigate common respiratory complaints, e.g. plain chest radiographs, cat scan, VQ scan, pulmonary function tests, sweat chloride testing, sleep studies and bronchoscopy					
*Understand pharmacology of drugs used in common respiratory diseases e.g., TB medications, pulmonary HTN medications, hypoventilation, and obstructive sleep apnea					
Understand pathophysiology of common respiratory illness e.g., pneumonia asthma and chronic lung diseases					
To be able to manage common respiratory emergency e.g., asthma exacerbation, respiratory failure, pneumonia and complicated pneumonia, pulmonary TB, and pulmonary embolism.					
To be able to perform peak expiratory flow meter and different types of spirometry, exercise testing					
To assess and share in bronchoscopy under supervision					
To understand common biological agents used in asthma and other pulmonary conditions					
To be to diagnose and manage pulmonary HTN					
To understand basic non-invasive ventilation and home therapy e.g., CPAP, BiPAP					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
B. COMMUNICATOR Physicians effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter. As Communicators, fellows will facilitate the doctor-patient relationship: • The fellows will establish rapport with children and their parents in the outpatient and inpatient services, and with the rest of the members of the multidisciplinary team					
Communicates effectively with patients and their families					
*Able to maintain clear, accurate and appropriate records					
Written progress notes and respiratory recommendations notes are well organized and legible.					
*Provides appropriate medical support at various transitional care settings.					
*Discharge counseling is conducted and documented promptly and accurately.					
- Discuss and educate patient-family regarding diagnosis-plan Document-write timely and thorough note for EMR and referring physician - Demonstrate compassion, integrity, and respect for others - Communicate effectively with patients and families across a broad range of socioeconomic and cultural backgrounds.					
C. COLLABORATOR *Works effectively in a team environment with the medical team, nurses, respiratory staff, and other healthcare professionals.					
* Communicates efficiently with HCP, preceptors, colleagues, and caregivers.					
Recognize and respect the diversity of roles, responsibilities, and competences of other health professionals in the management of the					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
respiratory patient					
Work with others to assess, plan, provide, and integrate care of the patient					
D. LEADER *Serves in administration and leadership roles as appropriate					
*Appropriate & effective use of healthcare resources.					
• Shows effective time and task management skills					
*Manages conflicts effectively during the learning experience Manages organization between all team members, roles of residents, interns, students and organize team dynamics.					
E. HEALTH ADVOCATE *Offers advocacy on behalf of patients at practice and general population levels.					
* Able to identify the socioeconomical, environmental, and biological factors that influence patient's adherence, and overall health of patients and society.					
**Respond to the needs of the communities or populations they serve by advocating with them for system-level change in a socially accountable manner "volunteering"					
Promote patient safety					
F. SCHOLAR *Attends and contributes to rounds, seminars, and other learning events					
*Design effective educational activities					
*Apply a process of on-going self-evaluation and personal performance improvement					
Critically appraise the evidence to address a clinical question					
G. PROFESSIONAL * Delivers the highest quality of care with integrity & compassion.					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
*. Recognize limitations and seeks advice and consultations when necessary					
**Reflects the highest standards of excellence in clinical care and ethical conduct.					
EVALUATION BY ATTENDING ADULT PULMONOLOGIST AT END OF THE ROTATION					

Work tools for Pulmonary Respiratory (F2)

Workplace Based Assessment and other Activities	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)	Comments
*CbD 1						
* Mini-CEX 2						
* **DOPs 1**						
* Topic Presentation 1						
* **Logbook**						

A minimum of one CbD, one mini CEX, potential one DOPs or a topic presentation, and log book

*Did you have an opportunity to meet with this trainee to discuss their performance and action plan? (for the evaluator to answer)

○Yes ○No

*Did you have an opportunity to discuss your performance and action plan with your preceptor/supervisor? (for the trainee to answer)

○Yes ○No

Please enter any comments you have (if any) on this evaluation. (for the trainee to answer)

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* Feedback Comments (Verbal and written feedback is a mandatory component of this assessment, include areas of strengths/areas for improvement) (for the trainer to answer)

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*Agreed Action Plan:

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* Indicates a mandatory response

ITER Rotation Specific Template Form

Saudi Commission for Health Specialties	ITER Form (Senior Level) – Pediatric Respiratory Fellowship Ears, Nose and Throat Rotation (F2) Evaluated By: Evaluator's name. Evaluating: Person (role) or moment's name (if applicable) Dates: Start date to end date

In-Training Evaluation Report – ENT Rotation (F2)

ITER Rating scale:

- NA: Not Applicable or no opportunity to evaluate during this rotation.
- Performance that Does not Meet Expectations (<50%): Trainee consistently struggles to meet basic requirements, require significant development and intervention in various aspects of training and patient care. Performance consistently lags behind their expected competency level.
- Borderline Performance (>50-69.99%): Trainee met some criteria satisfactorily, but there are notable deficiencies in their overall performance that require attention and development. Performance frequently falls below the expected competency level, indicating a need for improvement in some areas.
- Performance that Meets Expectations (>70-89.99%): Trainee fulfilled their role competently, met the required criteria effectively and contributed to their responsibilities. Performance consistently aligns with the expected competency level.the expected competency level.

	NA	Does not meet expectations (<50 %)	Borderline (≥50-69.99 %)	Meets expectations (≥70-89.99 %)	Exceeds expectations (≥90 %)
A. CLINICAL MEDICAL EXPERT * List rotation specific competencies: As Medical Experts, physicians integrate all the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care					
*Be able to develop an understanding of normal anatomy, physiology, and pathophysiology of the otorhinolaryngology (Ears, nose, and throat)					
Develop knowledge of common ear, nose, and throat disorders/ infections (types of otitis media, acute and chronic sinusitis, types of hearing loss, tonsillar infection and hypertrophy, adenoid hyper trophy)					
*Be able to perform detailed history and physical examination for the ENT During system examinations, candidate should be able to differentiate normal from abnormal findings To be able to differentiate sources of noisy breath (snoring, stridor or wheezy chest and others)					
*Be able to outline a differential diagnosis and formulate a plan of management					
* Understand the role of tests and procedures used to investigate common Otorhinolaryngology e.g. sinus x-ray, postnasal x-ray, cat scan neck and sinus, lateral neck x-ray, Able to understand basic knowledge for naglideslopes, laryngoscopy, and rigid bronchoscopy					
*Understand indication, precaution, and complications of rigid bronchoscopy To understand types of hearing assessment To understand common indications for adenotonsillectomy, complications and define the high-risk groups.					
To be able to manage common causes of upper airway obstruction (laryngomalacia, adenotonsillar hypertrophy, vocal cord dysfunction, vocal cord paralysis,) To be able to manage common upper airway emergency (CROUP, tracheitis, retropharyngeal abscess, epiglottitis, and foreign body aspiration)					

	NA	Does not meet expectations (<50 %)	Borderline (≥50-69.99 %)	Meets expectations (≥70-89.99 %)	Exceeds expectations (≥90 %)
To know basic knowledge about tracheostomy (indications and complications (subglottic stenosis) and how to take care of trach)					
To know common congenital anomalies e.g. laryngomalacia, choanal atresia, and vocal cord disorder					
B. COMMUNICATOR Physicians effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter. As Communicators, fellows will facilitate the doctor-patient relationship: • The fellows will establish rapport with children and their parents in the outpatient and inpatient services, and with the rest of the members of the multidisciplinary team					
Communicates effectively with patients and their families					
*Able to maintain clear, accurate and appropriate records					
Written progress notes and respiratory recommendations are well organized and legible.					
*Provides appropriate medical support at various transitional care settings.					
*Discharge counseling is conducted and documented promptly and accurately.					
C. COLLABORATOR *Works effectively in a team environment with the medical team, nurses, ENT staff, and other healthcare professionals.					
* Communicates efficiently with HCP, preceptors, colleagues, and caregivers.					
Recognize and respect the diversity of roles, responsibilities, and competences of other health professionals in the management of the respiratory patient					

	NA	Does not meet expectations (<50 %)	Borderline (≥50-69.99 %)	Meets expectations (≥70-89.99 %)	Exceeds expectations (≥90 %)
Work with others to assess, plan, provide, and integrate care of the patient					
D. LEADER *Serves in administration and leadership roles as appropriate					
*Appropriate & effective use of healthcare resources.					
Shows effective time and task management skills					
*2 Manages conflicts effectively during the learning experience					
E. HEALTH ADVOCATE *Offers advocacy on behalf of patients at practice and general population levels.					
* Able to identify the socioeconomical, environmental, and biological factors that influence patients' adherence, and overall health of patients and society.					
**Respond to the needs of the communities or populations they serve by advocating with them for system-level change in a socially accountable manner (e.g., through volunteering)					
Promote patient safety					
F. SCHOLAR *Attends and contributes to rounds, seminars, and other learning events					
*Design effective educational activities					
*Apply a process of on-going self-evaluation and personal performance improvement					
Critically appraise the evidence to address a clinical question					
G. PROFESSIONAL * Delivers the highest quality of care with integrity & compassion.					

	NA	Does not meet expectations (<50 %)	Borderline (≥50-69.99 %)	Meets expectations (≥70-89.99 %)	Exceeds expectations (≥90 %)
*. Recognize limitations and seek advice and consultations when necessary					
**Reflects the highest standards of excellence in clinical care and ethical conduct. EVALUATION: BY ATTENDING ENT physician					

Work tools for ENT (F2)

Workplace Based Assessment and other Activities	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)	Comments
*CbD 1						
* Mini-CEX 1						
*** DOPs 1**						
* Topic Presentation 1						
*Logbook						

A minimum of one CbD, one mini CEX, potential one DOPs or a topic presentation, and logbook

*Did you have an opportunity to meet with this trainee to discuss their performance and action plan? (for the evaluator to answer)

○Yes ○No

*Did you have an opportunity to discuss your performance and action plan with your preceptor/supervisor? (for the trainee to answer)

○Yes ○No

Please enter any comments you have (if any) on this evaluation. (for the trainee to answer)

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* Feedback Comments (Verbal and written feedback is a mandatory component of this assessment, include areas of strengths/areas for improvement) (for the trainer to answer)

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*Agreed Action Plan:

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* Indicates a mandatory response

ITER Rotation Specific Template Form

Saudi Commission for Health Specialties	ITER Form (Senior Level) – Pediatric Respiratory Fellowship Sleep Medicine Rotation (F2) Evaluated By: Evaluator's name Evaluating: Person (role) or moment's name (if applicable) Dates: Start date to end date

In-Training Evaluation Report- Sleep Medicine Rotation (F2)

ITER Rating scale:

- NA: Not Applicable or no opportunity to evaluate during this rotation.
- Performance that Does not Meet Expectations (<50%): Trainee consistently struggles to meet basic requirements, requires significant development and intervention in various aspects of training and patient care. Performance consistently lags behind their expected competency level.
- Borderline Performance (>50-69.99%): Trainee met some criteria satisfactorily, but there are notable deficiencies in their overall performance that require attention and development. Performance frequently falls below the expected competency level, indicating a need for improvement in some areas.
- Performance that Meets Expectations (>70-89.99%): Trainee fulfilled their role competently, met the required criteria effectively and contributed to their responsibilities. Performance consistently aligns with the expected competency level.
- Performance that Exceeds Expectations (>90%): Trainee constantly demonstrates exceptional clinical skills, professionalism, and commitment to continuous learning. Performance significantly exceeds the expected competency level.

	NA	Does not meet expectations (<50 %)	Borderline (≥50 - 69.99%)	Meets expectations (≥70-89.99 %)	Exceeds expectations (≥90 %)
A. CLINICAL MEDICAL EXPERT *** List rotation specific competencies:** To provide Patient Care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Fellows will: 1. Gather essential and accurate information about the patient. 2. Organize and prioritize responsibilities to provide patient care that is safe, effective, and efficient. 3. Develop knowledge of common respiratory and behavioral sleep disorders, obstructive sleep apnea (OSA), central sleep apnea (CSA), specifically known syndromes and their associations: congenital central sleep apnea (CCHS), Joubert, secondary central sleep apnea, Insomnia, and Narcolepsy.Be a 4. ble to take full sleep history from patients referred to for sleep clinic. 5. Be able to outline a differential diagnosis and formulate a plan of management 6. Counsel patients and families under supervision. 7. Provide effective health maintenance and anticipatory guidance 8. Use information technology to optimize patient care 9. for medical knowledge, pulmonary fellow rotating in sleep medicine need to master the following: - Develop the ability to take full Sleep history and rule out any pulmonary association - Develop knowledge of common respiratory and behavioral sleep disorders, OSA, CSA, specifically known syndromes and their associations: CCHS, Joubert, secondary central sleep apnea, Insomnia, and Narcolepsy - Should know basic sleep physiology - Understand the role of tests and procedures used to investigate common sleep disorders such as overnight oximetry study, diagnostic sleep study and titration sleep study, lateral neck x-ray, brain MRI, others.					

	NA	Does not meet expectations (<50 %)	Borderline (≥50 - 69.99%)	Meets expectations (≥70-89.99 %)	Exceeds expectations (≥90 %)
- Understand pharmacology of drugs used in common sleep disorders - Understand the very basic scoring, mainly respiratory scoring and the link to respiratory scoring and sleep staging. - Can differentiate between Obstructive and Central events and know the definition in Polysomnography (PSG). - Understand basics of non-invasive ventilation, types, utilization, different interfaces, application, initiation, maintenance - know the basics of NIV initiation, challenges - - Should master blood gas interpretation					
Practice-Based Learning and Improvement involves investigation and evaluation of one's own patient care, appraisal and assimilation of scientific evidence, and improvements in patient care. Pediatric pulmonary fellows will: 1. Identify strengths, deficiencies, and limits in one's knowledge and expertise 2. Set learning and improvement goals 3. Read around the daily cases is critical for improvement and build knowledge level based on practice. 4. Identify and perform appropriate learning activities to guide personal and professional development 5. Systematically analyze practice using quality improvement methods with the goal of practice improvement 6. Incorporate formative evaluation feedback into daily practice 7. Locate, appraise, and assimilate evidence form scientific studies related to their patient's health problems 8. Use information technology to optimize learning and care delivery 9. Develop the necessary skills to be an effective teacher 10. Participate in the education, of patients, families, students, residents, and other health professionals					

	NA	Does not meet expectations (<50 %)	Borderline (≥50 - 69.99%)	Meets expectations (≥70-89.99 %)	Exceeds expectations (≥90 %)
11. Take primary responsibility for lifelong learning to improve knowledge, skills, and practice performance through familiarity with general and experience-specific goals and objectives and attendance at conferences 12. Use scientific methods and evidence to investigate, evaluate, and improve one's patient care practice in the inpatient setting 13. Identify personal learning needs, systematically organize relevant information resources for future reference, and plan for continuing acquisition of knowledge and skills 14. Use knowledge and skills of evidence-based medicine to efficiently search for, appraise and utilize the best evidence					
B. COMMUNICATOR 1. Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds 2. Demonstrate the insight and understanding into emotion and human response to emotion that allow one to appropriately develop and manage human interactions 3. Communicate effectively with physicians, other health professionals, other team members, and health-related agencies. 4. Work effectively as a member of a health care team or other professional group. 5. Maintain comprehensive, timely, and legible medical records, if applicable 6. Demonstrate effective teaching of students, pediatric residents, colleagues, and other professionals - Use interpreter services, when necessary, Write/dictate complete and timely clinic notes/letters - Deliver well-organized, clear, understandable lectures to residents, medical students and presentations within the division, department and outside - Demonstrate formative evaluation feedback in daily practice					

	NA	Does not meet expectations (<50 %)	Borderline (≥50 - 69.99%)	Meets expectations (≥70-89.99 %)	Exceeds expectations (≥90 %)
C. COLLABORATOR - Works effectively in a team environment with the medical team, nurses, respiratory staff, and other healthcare professionals. - Work with others to assess, plan, provide, and integrate care of the patient - Act in a consultative role to other physicians and health professionals					
D. LEADER - Serves in administration and leadership roles as appropriate - Appropriate & effective use of healthcare resources. - Shows effective time and task management skills - Manages conflicts effectively during the learning experience					
E. HEALTH ADVOCATE - Offers advocacy on behalf of patients at practice and general population levels. - Able to identify the socioeconomical, environmental, and biological factors that influence patient's adherence and overall health of patients and society. - Respond to the needs of the communities or populations they serve by advocating with them for system-level change in a socially accountable manner "volunteering" - Promote patient safety					
F. SCHOLAR - Attends and contributes to rounds, seminars, grand rounds, and conferences. - Design effective educational activities - Apply a process of ongoing self-evaluation and personal performance improvement - Critically appraise the evidence to address a clinical question					
G. PROFESSIONAL					

	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)
- Delivers the highest quality of care with integrity & compassion. - Recognize limitations and seek advice and consultations when necessary - Reflects the highest standards of excellence in clinical care and ethical conduct. - Fellows must arrive at Morning Report on time and dress appropriately for patient care When requested, follow will model-teach other students or pediatric residents					

Work tools for Sleep Medicine (F2)

Workplace Based Assessment and other Activities	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)	Comments
*CbD 1						
* Mini-CEX 1						
* DOPs 1						
* Topic Presentation 1						
* Log book						
*						

A minimum of one CbD, one mini CEX, potential one DOPs or a topic presentation, and log book

*Did you have an opportunity to meet with this trainee to discuss their performance and action plan? (for the evaluator to answer)

○Yes ○No

*Did you have an opportunity to discuss your performance and action plan with your preceptor/supervisor? (for the trainee to answer)

○Yes ○No

Please enter any comments you have (if any) on this evaluation. (for the trainee to answer)

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* Feedback Comments (Verbal and written feedback is a mandatory component of this assessment, include areas of strengths/areas for improvement) (for the trainer to answer)

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*Agreed Action Plan:

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* Indicates a mandatory response

ITER Rotation Specific Template Form

Saudi Commission for Health Specialties	ITER Form (senior Level) – Pediatric Respiratory Fellowship Pediatric Cardiology- Elective (F2) Evaluated By: Evaluator's name. Evaluating: Person (role) or moment's name (if applicable) Dates : Start date to end date

In-Training Evaluation Report- Cardiology Rotation

ITER Rating scale:

- NA: Not Applicable or no opportunity to evaluate during this rotation.
- Performance that Does not Meet Expectations (<50%): Trainee consistently struggles to meet basic requirements, require significant development and

intervention in various aspects of training and patient care. Performance consistently lags behind their expected competency level.

- Borderline Performance (>50-69.99%): Trainee met some criteria satisfactorily, but there are notable deficiencies in their overall performance that require attention and development. Performance frequently falls below the expected competency level, indicating a need for improvement in some areas.
- Performance that Meets Expectations (>70-89.99%): Trainee fulfilled their role competently, met the required criteria effectively and contributed to their responsibilities. Performance consistently aligns with expected competency level.
- Performance that Exceeds Expectations (>90%): Trainee constantly demonstrates exceptional clinical skills, professionalism, and commitment to continuous learning. Performance significantly exceeds expected competency level.

	NA	**Does not Meet Expectations (<50%)**	**Borderline (≥50-69.99%)**	**Meets Expectations (≥70-89.99%)**	**Exceeds Expectations (≥90%)**
A. Clinical skills and knowledge *Can obtain proper history and physical exam related to cardiac diseases					
*Can formulate appropriate differential diagnosis for common cardiac presentations					
*Knows how to diagnose common cardiac diseases e.g.: cyanotic and cyanotic CHD, heart failure and Pulmonary hypertension.					
*Knows physiology and anatomy of cardiovascular system in neonates and children and the pathophysiology of common cardiac diseases					
*Can identify and mange pulmonary complication of cardiac diseases e.g. bronchiectasis, pulmonary edema					

	NA	Does not Meet Expectations (<50%)	Borderline (≥50-69.99%)	Meets Expectations (≥70-89.99%)	Exceeds Expectations (≥90%)
*Knows the indication, doses, side effects of common cardiac medication e.g. PHTN medications, anti-failure medication					
*Knows the indication, procedure, and complication of diagnostic cardiac test procedure: ECHO, cardiac CT, cardiac catheterization.					
B. COMMUNICATOR *Communicates effectively with patients and their families					
*Able to maintain clear, accurate & appropriate records					
*Written progress notes are well organized and legible.					
*Discharge summaries are accurate and appropriate.					
C. COLLABORATOR *Works effectively in a team environment with the medical team, nurses, pharmacy staff, and other healthcare professionals					
*Knows how to deliver proper consultation to other teams					
*Hands over the care of a patient to another healthcare professional to facilitate continuity of safe patient care					
D. LEADER *Serves in administration and leadership roles as appropriate.					
*Appropriate & effective use of healthcare resources.					
*Shows effective time and task management skills					
*Manages conflicts effectively during the learning experience					

	NA	Does not Meet Expectations (<50%)	Borderline (≥50-69.99%)	Meets Expectations (≥70-89.99%)	Exceeds Expectations (≥90%)
E. HEALTH ADVOCATE *Offers advocacy on behalf of patients at practice and general population levels.					
*Able to identify the socioeconomical, environmental, and biological factors that influence patient's adherence, and overall health of patients and society.					
*Respond to the needs of the communities or populations they serve by advocating with them for system-level change in a socially accountable manner "volunteering"					
F. SCHOLAR *Attends and contributes to rounds, seminars, and other learning events					
*Design effective educational activities					
*Apply a process of on-going self-evaluation and personal performance improvement					
G. PROFESSIONAL *Delivers the highest quality of care with integrity & compassion.					
*Recognize limitations and seeks advice and consultations when necessary.					
*Reflects the highest standards of excellence in clinical care and ethical conduct.					

Work tools for Cardiology Rotation (F2)

Workplace Based Assessment and other Activities	NA	Does not meet expectations (<50%)	Borderline (≥50-69.99%)	Meets expectations (≥70-89.99%)	Exceeds expectations (≥90%)	Comments
*CbD 1						
Mini-CEX 1 *						
DOPs 1 *						
* Topic Presentation						
*Logbook						

A minimum of one CbD, one mini CEX, potential one DOPs or a topic presentation, and log book

*Did you have an opportunity to meet with this trainee to discuss their performance and action plan? (for the evaluator to answer)

- Yes
- No

*Did you have an opportunity to discuss your performance and action plan with your preceptor/supervisor? (for the trainee to answer)

- Yes
- No

* Feedback Comments (Verbal and written feedback is a mandatory component of this assessment, include areas of strengths/areas for improvement)

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*Agreed Action Plan:

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Appendix D: Important Forms

1) Mini-CEX assessment

Fellows name: _____

Level: _____

Staff Supervisor: _____

Date of Evaluation: _____

Rotation: _____

Mini-Clinical Evaluation Exercise (Mini-CEX)					
	*Brief Summary of Case:				
	*1) Medical Interview Skills				
	n/a	Below expectations (1)	Borderline (2)	Meets expectations (3)	Above expectation (4)
	*2) Physical Examination Skills				
	n/a	Below expectations (1)	Borderline (2)	Meets expectations (3)	Above expectation (4)
	*3) Counselling and Communications Skills				
	n/a	Below expectations (1)	Borderline (2)	Meets expectations (3)	Above expectation (4)
	*4) Clinical Judgement				
	n/a	Below expectations (1)	Borderline (2)	Meets expectations (3)	Above expectation (4)

Mini-Clinical Evaluation Exercise (Mini-CEX)					
	*5) Consideration for Patient/Professionalism				
	n/a	Below expectations (1)	Borderline (2)	Meets expectations (3)	Above expectation (4)
	*6) Organization/Efficiency				
	n/a	Below expectations (1)	Borderline (2)	Meets expectations (3)	Above expectation (4)
	*7) Overall Clinical Competence				
	n/a	Below expectations (1)	Borderline (2)	Meets expectations (3)	Above expectation (4)
	*Comments:				
	*Which aspects of the encounter were done well?				
	*Suggested areas for improvement / development?				
	*Agreed Actions / learning plan:				
	*Student's reflections on patient and areas of learning:				
	*Assessor's position: Consultant Associate others				
others					
Time taken					

2) Direct Observation of Procedural Skills – DOPS Assessment

Evaluated By : Evaluator's name

Evaluating : Person (role) or moment's name (if applicable)

Dates : Start date to end date

*Procedure:

	N/A	Below expectations 1	Borderline 2	Meets expectations 3	Above expectation 4
*Domain & Comments: Professional Approach (to include communication, consent, and consideration of the patient.)					
*Knowledge (indication, anatomy, technique)					
*Demonstrate appropriate pre-procedure preparation					
*Appropriate analgesia or/and sedation					
*Technical Ability					
*Aseptic Technique					
*Post Procedure Management					
	Needs more practice	May need supervision if complications arise	Competent to perform unsupervised		
*Overall Ability to perform Procedure:					

*Comments:

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*Assessor's position:

Consultant

Associate Consultant

Senior Registrar

Registrar

Fellow

Senior Resident

Nurse

Others (specify):

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*Complexity of procedure:

Low

Average

High

*Time taken for Feedback & Observation (in minutes):

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The following will be displayed on forms where feedback is enabled. *(for the evaluator to answer...)*

*Did you have an opportunity to meet with this resident to discuss their performance?

Yes

No

(for the value to answer...)

*Are you in agreement with this assessment?

Yes

No

Please enter any comments you have (if any) on this evaluation.

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3) Case-based Discussion (CbD)

*Brief description of case including curricula areas covered:

	N/A	Below expectations 1	Borderline 2	Meets expectations 3	Above expectation 4
***Domain & Comments Clinical Assessment:**					
***Investigations and referrals**					
***Management plan**					
***Follow-up and future planning**					
***Overall clinical judgement**					
***Organization**					

*Comments:

*Which aspects of the encounter were done well?

*Suggested areas for improvement / development?

*Agreed Actions / learning plan:

*Assessor's position:

Consultant

Associate

Consultant

Senior Registrar

Registrar

Fellow

Other

Others (specify):

*Complexity of Case:

Low

Average

High

*Time taken for Observation & Feedback (in minutes)

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*Basis for discussion:

Outpatient

case/record/letter

Discharge

Summary Inpatient case/consult/record

The following will be displayed on forms where feedback is enabled... *(for the evaluator to answer...)*

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*Did you have an opportunity to meet with this resident to discuss their performance?

Yes

No

(for the evaluee to answer...)

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*Are you in agreement with this assessment?

Yes

No

Please enter any comments you have (if any) on this evaluation.

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4) ITER Rotation Evaluation (BY THE TRAINEE)

Evaluated By : Evaluator's name

Evaluating : Person (role) or moment's name (if applicable)

Dates : Start to end date

*Indicates a mandatory response

	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
*1. I found this rotation to be useful for my training					
*2. The objectives and clinical competencies were clear to me at the beginning of the rotation					
*3. I was provided positive and constructive feedback in a timely manner that helped me improve during the rotation					
*4. I was treated with respect by the faculty and staff and functioned as part of the healthcare team.					
*5. I was provided the opportunity to demonstrate my knowledge, skills, and attitudes during this rotation					

*Any other comments to improve the rotation?

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The following will be displayed on forms where feedback is enabled...

(for the evaluator to answer...)

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*Did you have an opportunity to meet with this resident to discuss their performance?

Yes

No

(for the evaluee to answer...)

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*Are you in agreement with this assessment?

Yes

No

Please enter any comments you have (if any) on this evaluation.

……
……
……
……

valuated By : Evaluator's name

Evaluating : Person (role) or moment's name (if applicable)

Dates : Start date to end date

*Indicates a mandatory response

5) Pediatric Respiratory Activity Evaluation Form

(PLEASE PRINT ALL THE INFORMATION REQUESTED)

DATE:……

TITLE OF SESSION: SPEAKER: MODERATOR:

OBJECTIVES:

1. _____

2. _____

3. _____

NOTE: Receipt of this completed and signed form is necessary for attendance log.

I. Evaluate the program content on these criteria:

Objectives met	very little	1	2	3	4	5	very much
Met my professional needs	minimal	1	2	3	4	5	excellent
New information gained	very little	1	2	3	4	5	very much

II. Evaluate the presenter's ability to meet these criteria:

Preparation	unprepared	1	2	3	4	5	prepared
Held my interest	very little	1	2	3	4	5	very much

Method of presentation 1 2 3 4 5 excellent

Poor 1 2 3 4 5 excellent

Quality and use of audiovisual poor

III. Rate the overall quality of this presentation:

poor 1 2 3 4 5 excellent Comments:

_____

IV. Strengths and weaknesses: _____

V. Future recommended speaker / topics: _____

NOTE: Receipt of this completed and signed form is necessary for attendance.

Name: _____

Last first

(Please write your name. clearly)

Signature _____

6) Annual Checklist For Respiratory Fellow (3 months to completion)

Fellow name :……..

ID ……..

Year:……

Center:……..

level:……

	✓ when satisfactory	Comment
Regular supervisor–fellow meetings held (at least monthly)		
fellow logbook up to date		
Competency assessment up to date		
Six monthly supervisor reports completed		
Annual review and report on file		
Annual training plan up to date		
Training plan for the period of enrolment up to date		
Fellow regularly attending clinical meetings and/or tutorials/half-days		
Assignments for this year completed		

Supervisor: _____

Date: _____

7) Completion Checklist for Respiratory Fellowship Training Program

Name of fellow:……

ID: ……

Saudi commission number:……

Starting the training:……

End of the training ……

Center of training ……

Completion of requirements checklist	Date achieved
Required level of competency attained in all sub-modules	
Logbook completed and assessed as satisfactory	
Assignments completed and graded as 3 (out of 5) or better	
Research project, report, and presentation assessed as satisfactory	
ITERs and FITER completed	
DOPs completed	
CBD completed	
Mini CEX completed	
End year promotion	
Final board exam eligible	
Supervisor: _____ Date: _____ Program Director: _____ Date: _____	

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