

Advancement of respiratory care in Yemen





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@SaleemHamilah



Outlines of Presentation :-

- *Overview of Respiratory care globally and locally .*
- *What is the Respiratory Care ?*
- *Who is the Respiratory Therapist ?*
- *Responsibilities of Respiratory Therapists .*
- *Advancement of Respiratory Care in Yemen.*

Globally the Respiratory Therapy started from Here ...!



1943 OJT Inhalation Therapy Program established

Dr. Edwin R. Levine established the first inhalation training program at Michael Reese Hospital, Chicago, Illinois, USA **in 1943**. Dr. Levine and his colleagues provided didactic and clinical instruction for the on-the-job trainees at Michael Reese Hospital.

Foundation of Respiratory Care globally



Edwin R. Levine, MD is credited with establishing the first on-the-job training program for inhalation therapy.

In 1952, Dr. Levine served as President of the Inhalation Therapy Association (now ITA become AARC) and was the only physician ever elected to do so.

What is Respiratory Care Specialty?

Respiratory care, also known as **respiratory therapy**, has been defined as :

- the health care discipline that specializes in the promotion of optimal cardio-Pulmonary function and health which includes the assessment, treatment, management, control, diagnostic evaluation, education, and care of patients with deficiencies and abnormalities of the cardiopulmonary system.
- Respiratory care is increasingly involved in the prevention of respiratory disease , the management of patients with chronic respiratory diseases and the promotion of health and wellness

What are the Respiratory Therapists ?

Respiratory therapists (RTs) , also known as **respiratory care practitioners (RCPs)** , are health care professionals who are educated and trained to provide respiratory care to patients and they apply evidence based scientific principles to identify, prevent and treat acute or chronic dysfunction of the cardiopulmonary system.

- **Respiratory therapists** care for patients with breathing problems of all ages from newborn infants, children, adults, and the elderly.



*Every one of you should
believe that*

Respiratory Care is

- A Life and Breath Career for You!

Respiratory Care Practitioners :

Respiratory therapists have an in-depth knowledge of

- *Cardiopulmonary physiology and pathophysiology*
- *Patient assessment and cardiopulmonary diagnostics*
- *Pulmonary disease*
- *Advanced life support and critical care*
- *Pharmacology*
- *Biomedical engineering and technology*

Respiratory therapists effectively

- *Assess*
- *Educate and*
- *Treat patients with heart and lung problems*



What is Respiratory Care focused on ?

Respiratory care is focused on:

- prevention
- assessment
- treatment
- management
- control
- diagnostic evaluation
- education and
- care



Of breathing disorders and the patients suffering from them.

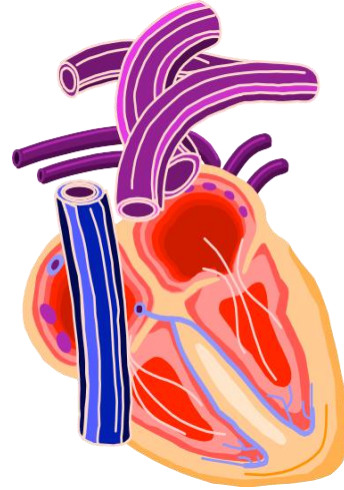
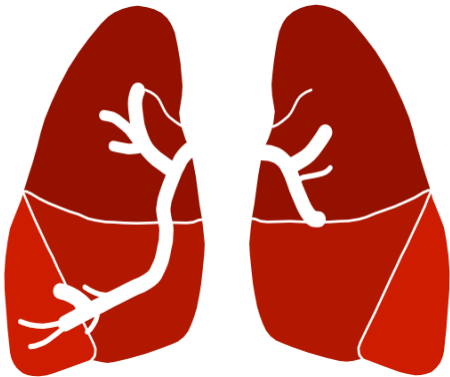
What Do Respiratory Therapists Do ?

- *Respiratory therapists utilize:*
 - Critical thinking
 - Patient/environment assessment skills
 - Evidence based clinical practice skills
- *In order to:*
 - Develop and implement effective care plans
 - Apply patient driven protocols
 - Utilize disease-based clinical pathways
 - Implement disease management programs
 - Perform therapeutic and diagnostic procedures in the care of patients

What Do Respiratory Therapists Do ?

In summary:

Respiratory Therapists work
to evaluate, treat and care for
patients with lung and heart
disorders.

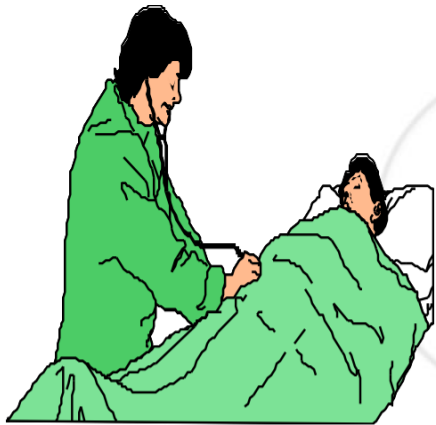


What Breathing Disorders Do Respiratory Therapists Treat?

- *Asthma .*
- *Bronchitis.*
- *Emphysema.*
- *COPD.*
- *Cystic Fibrosis.*
- *Chest Trauma.*
- *Pneumonia.*
- *Lung Cancer.*



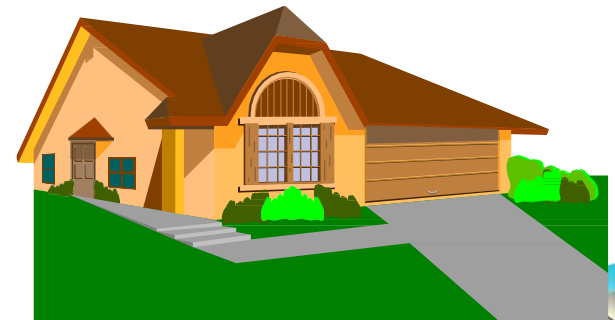
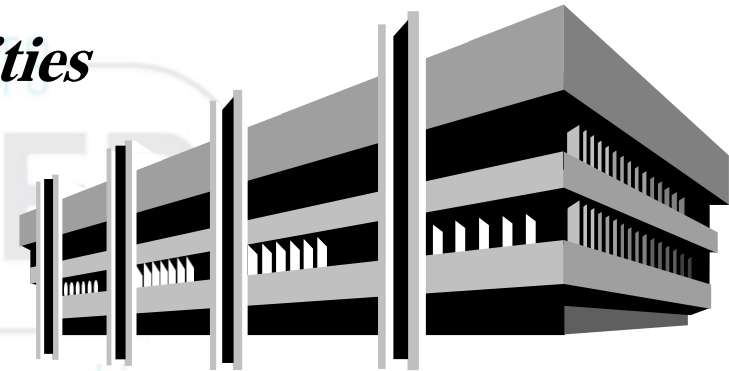
What Breathing Disorders Do Respiratory Therapists Treat?



- *Lung disease patients*
- *Heart patients*
- *Neuromuscular patients*
- *Accident victims*
- *Premature babies*
- *Children*
- *Adults*
- *The elderly*

Where Do RTs Work?

- *Acute care hospitals*
- *Diagnostic laboratories*
- *Rehabilitation and skilled nursing facilities*
- *Patient's homes*
- *Patient transport services*
- *Physician offices*
- *Convalescent and retirement centers*
- *Educational institutions, including colleges and universities.*
- *Industry*



Respiratory Therapists Perform Patient Assessment ?

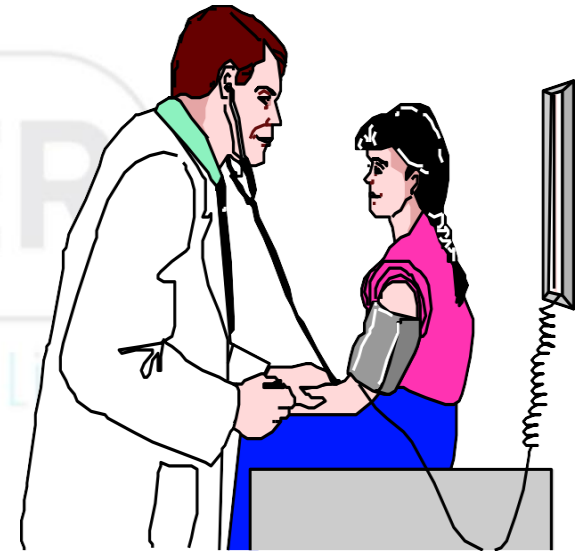
- *Patient Interview and History*
 - *Cough and sputum*
 - *Breathlessness and wheezing*
 - *Chest illness*
 - *Smoking*
 - *Occupational history*



Respiratory Therapists Perform Patient Assessment ?

- *Physical Assessment*

- General appearance
- Vital signs
- Chest inspection
- Breath sounds
- Percussion / palpation
- Bedside assessment of cardiopulmonary function
 - (SpO₂, Peak Flow, FEV₁, VC)



- *Respiratory Care Plan Development & Implementation*

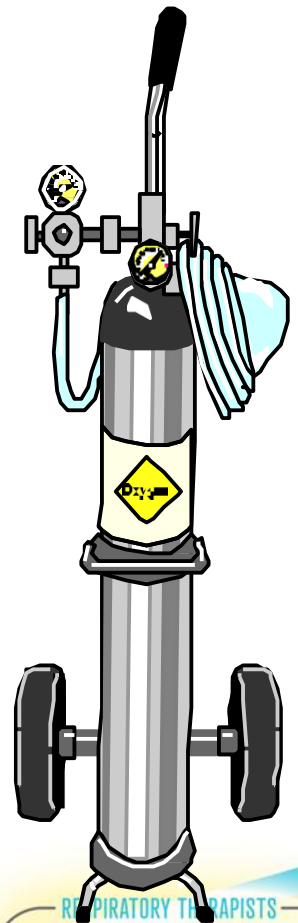
Respiratory Therapists Perform Diagnostic Procedures ?



- *Arterial blood gas analysis*
- *Pulmonary function studies*
- *Sleep studies*
- *EKGs and cardiac tests*
- *Sputum specimens*
- *Stress and exercise testing*

Respiratory Therapists Perform Therapeutic Procedures ?

- *Oxygen administration*
- *Medication administration*
- *Secretion management*
- *Chest physiotherapy*
- *Lung expansion therapy*
- *Pulmonary rehabilitation
and disease management*
- *Smoking cessation*



In what areas Do Respiratory Therapists Receive instruction ?

- *RT students gain experience in a variety of areas:*
 - Medical and surgical areas of the hospital
 - Intensive care units (adult, pediatric, neonatal)
 - Emergency room
 - Patient transport
 - Pulmonary rehabilitation and disease management
 - Cardiopulmonary diagnostics (pulmonary function testing, sleep lab, exercise testing, invasive and non-invasive cardiology)
 - Outpatient clinics and physician's offices.
 - Home care



Value of RT position :

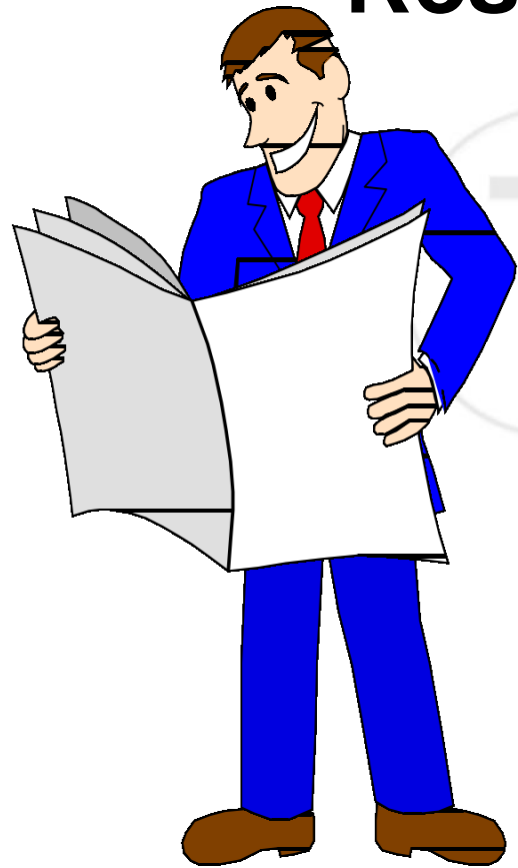
- *According to US news report 2019 :*
 - *RT position ranks 19 of the best Healthcare positions*
 - *RT position ranks number 40 of the best jobs .*
-
- *Source : US News Report 2019*

How Does the Job Market Look for Respiratory Therapists ?

- *The U.S. Bureau of Labor Statistics (BLS) lists Respiratory Care as among the **fastest growing professions** & projects a 26% increase in demand for respiratory therapists for the next decade.*
- *The Respiratory Therapist ranks among Best Jobs of 2019 In the US which ranked # 19 in the best Health Care Jobs .*

www.money.usnews.com

How Does the Job Market Look for Respiratory Therapists?



The need for RTs is growing due to:

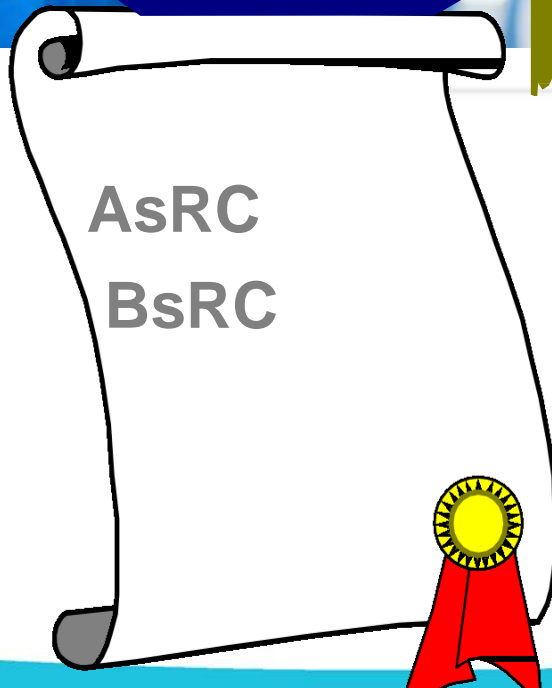
- *large increase in the elderly population*
- *environmental impact on diseases such as asthma , smoking and COPD*
- *technological advances in treatment of cardiopulmonary disease*
- *advances in treatment of premature babies*

How Much Do Respiratory Therapists Make?

- *Salary varies with educational degree and years of experience.*
- *Supervisors, clinical specialists, and department managers tend to have higher salaries.*
- *Median salaries for respiratory therapists in 2019 was **\$59,000 - 72,000\$** according to the **money.USnews***



How Do I Become a Respiratory Therapist?



AsRC
BsRC

- ***Earn:***

We Save Lives

Further Advancement and Education

Bridge program

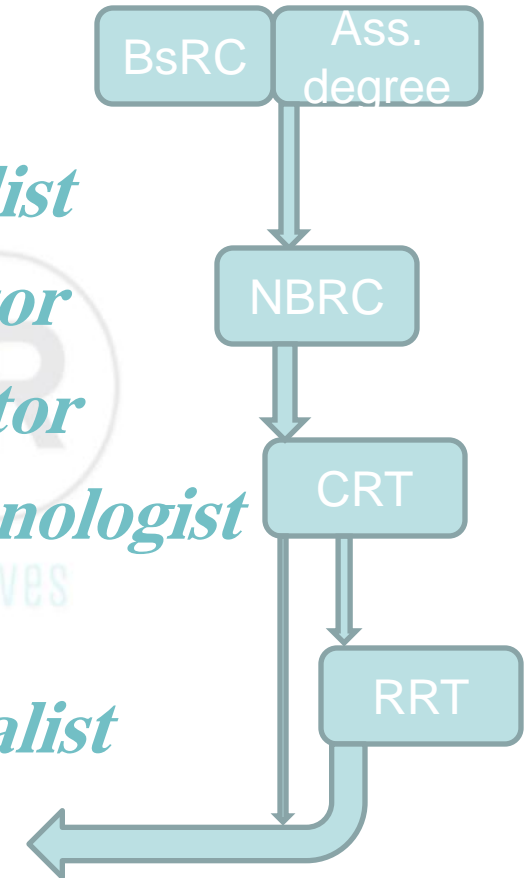
- *complete 2 years after associate degree to earn BsRC*
- *-Bachelor of Science Degree in RC (BsRC)*
- *at Four-year college or university then one year internship*
- *Provides opportunity for leadership*
 - *management and supervision*
 - *education or research*

-Master of Science in Respiratory Care Degree (MScRC)

Further Advancement and Education

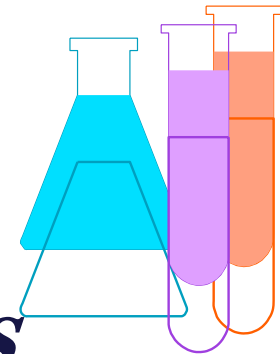
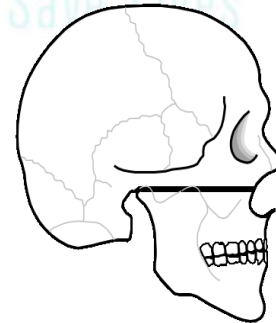
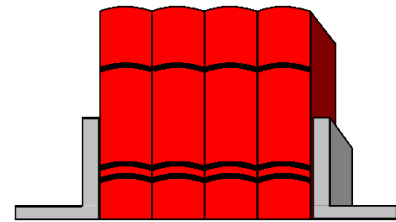
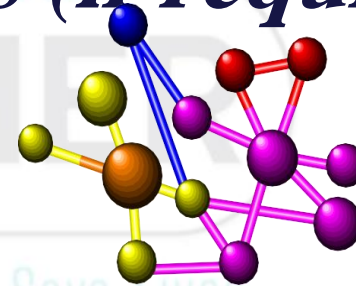
• *Specialist Credentials*

- *NPS - Neonatal / Pediatric Specialist*
- *AE-C – Certified - Asthma Educator*
- *PD-E - Pulmonary Disease Educator*
- *RPFT – Pulmonary Function Technologist*
- *SDS – Sleep Disorders Specialist*
- *ACCS – Adult Critical Care Specialist*



Respiratory Care Program Requirements for Admission

- *Learning Support Courses (if required)*
- *Prerequisite courses*
 - *General education*
 - *Math and science*
- *Other admission requirements*
 - *Application packet*



Respiratory Care Program Curriculum

- *General Education Courses*
- *Science Courses*
- *Respiratory Care Theory Courses*
- *Laboratory and Clinical Courses*

Subspecialties of Respiratory Care specialty :

Subspecialties of Respiratory Care

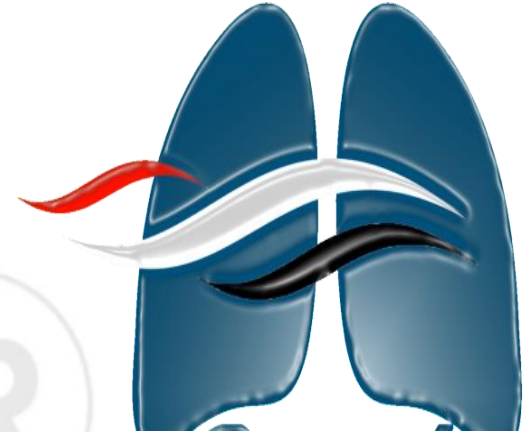
التخصصات الدقيقة للرعاية التنفسية

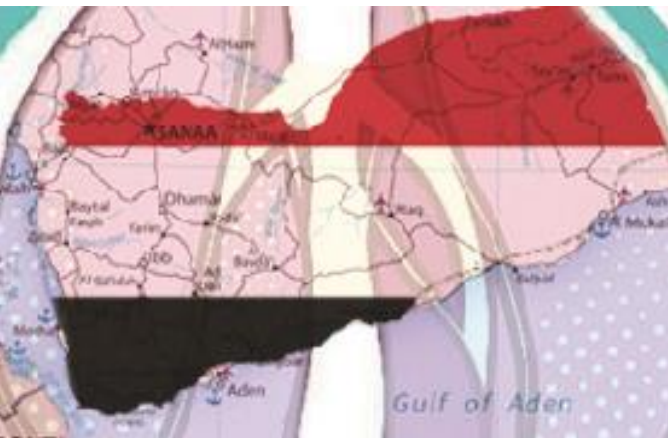
Subspecialty	Specialty	التخصص	دقيق
	Respiratory Care-Adult Critical Care	رعاية تنفسية-عناية حرجية للكبار	
	Respiratory Care-Pediatrics Critical Care	رعاية تنفسية-عناية حرجية للأطفال	
	Respiratory Care-Neonatal	رعاية تنفسية-عناية حرجية للخدج	
	Respiratory General Care	رعاية تنفسية للأجنحة	
	Emergency Room & Trauma	رعاية تنفسية للإسعاف والإصابات	
	Respiratory Cardiac	رعاية تنفسية للقلب	
	Respiratory Laboratory	مختبر وظائف الرئة	
	Respiratory Sleep	مختبر اضطرابات النوم	
	Respiratory Education & Discharge Planning	تثقيف رعاية تنفسية	
	Respiratory Assistant	مساعد رعاية تنفسية	
	Respiratory Home Care	رعاية تنفسية منزلية	
	Respiratory Pulmonary Rehabilitation	رعاية تنفسية تأهيلية	

Source :Professional Guide - Saudi Commission for Health Specialties-2016 (Page 54)

Hamilah in Mechanical Ventilaiton

What about the RT profession in Yemen ?





Respiratory Care Specialty Started Back 2006

**Before 2015 there were only about 4
hospitals in Republic of Yemen**

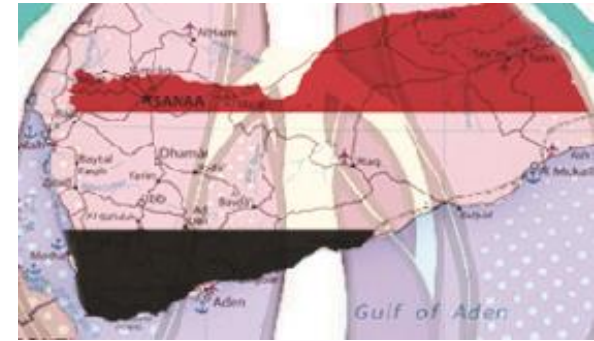
Source : RCSA-MoH , Yemen

Before 2015 , some RT units
established :

No	Hospital	Year	No. of RTs	Structure name	
1	TMGH-Sana'a	2006	36	RT unit	
2	USTH-Sana'a	2005	10	RT unit	
3	48 Model Hospital	2009	12	RT Department	
4	German Modern Hospital	2010	5	RT Unit	

Source : RCSA-MoH , Yemen

In Yemen



Unfortunately , There are less than 177 RTs employed as RTs to perform Respiratory care services for the patients with lung & heart problems around **Yemen** ?? .

The big dilemma is all employed in Sana'a.

Source : RCSA-MoH , Yemen

The situation of Respiratory Care profession clinically .

About 32 hospitals have been established RC dep.

Other hospitals arranging the opening.

Respiratory Therapy Educational Programs in Yemen :

- Before the year of 2017 :
- Nonsystematic Educational programs ...

**Yemen Bilquis Medical Institute-
Sana'a is the first academic
institution started to teach the
respiratory care in Yemen.
It started in 2015.**



Respiratory Therapy Educational Programs in Yemen :

- In 2017 , systematic began by CEHS .



- 2019 another step taken by Hajjah University .



جامعة حجة
HAJJAH UNIVERSITY

Respiratory Therapy Educational Programs in Yemen :



- 2020 is the real year of RC Specialty
- Big achievement for RT in Yemen by establishing **BsRC** taken by Al-Razi University

Scientific Activities of respiratory care in Yemen

Progressing the RT profession in Yemen...!

- The first Yemeni Conference of Respiratory Care held back on Nov. 6-7 2017 at 48 Model Hospital



لخطط الرعاية التنفسية في اليمن من بين ركام الحرب... نهض قوياً



RESPIRATORY THERAPISTS

المؤتمر اليمني الأول للرعاية التنفسية

The 1st Yemeni Conference of Respiratory Care

اليمن - صنعاء (٢٠١٧)

Yemen -Sana'a (2017)

المؤتمر اليمني الأول للرعاية التنفسية

The 1st Yemeni Conference of Respiratory Care



HERAPISTS
THER

We Save Lives

الأحتفال بالأسبوع العالمي للرعاية التنفسية – 30 أكتوبر 2018م لأول مرة في اليمن



**The first Ever RCWEEK celebration in
Yemen in Oct. 25 , 2018**

The first Respiratory care week celebration in Yemen recognized by AARC and published by published in AARC Times page 30.

- **Yemen** celebrated for the first time in recognition of international Respiratory care week on last Oct. 25 , 2018





A cake to mark the occasion.



Yemeni supporters of the respiratory care profession gathered for the RC Week event.



This banner welcomed everyone to the first RC Week celebration.

The respiratory care profession was introduced to the Republic of Yemen back in 2006 when four nurses from the nation's largest hospital were sent to Jordan to study respiratory care for a year. When they returned to their country, they began offering short courses in respiratory topics to ICU nurses, and the concept of having clinicians who were specially trained in respiratory care slowly but surely grew from there.

In 2016, the Bilquis Medical Institute started the first accredited program in respiratory care, and this past October, Yemeni RTs celebrated their first ever National Respiratory Care Week. According to AARC member Saleem Hamilah, BSc, RCP, the recognition was designed to "raise awareness of the respiratory care profession and the need for improved lung health."

Sponsored by Bilquis Medical Institute, the celebrations included a presentation on the progress made by the RT program along with lectures on idiopathic pulmonary fibrosis and weaning from mechanical ventilation. The first "RC Star in Yemen" award went to Hamilah for his pioneering efforts on behalf of the profession in his country. Going forward, it will be presented annually during RC Week to a Yemeni RT who shows dedication, service, passion, and creativity to the respiratory care specialty in Yemen.

A graduate of the Bilquis Medical Institute RT program, Hamilah serves as head of the respiratory care department at Modern European Hospital and is also a respiratory care specialist at 48 Model Hospital. In 2017, he became the first Yemeni to join the AARC in more than a decade, and he played an integral role in organizing the 2018 Yemeni RC Week events. He also helped organize the first respiratory care conference held in the country in 2017.

Hamilah says there are currently about 200 RTs employed at around 13 hospitals in Yemen and he and his colleagues are working to grow the profession to cover more of the nation's health care facilities. "One of our future goals is to initiate the bachelor of science in respiratory care and establish the Yemeni Association for Respiratory Care," he says. ■

30 AARC Times January 2019

Big step in establishing our awesome RT specialty in Yemen

- The Respiratory care specialty has been introduced and accredited by **Yemeni Medical Council** for the first Time in Yemen which considers the highest licensing governmental authority .
- Approved on Dec. 09 , 2018



اعتماد تخصص الرعاية التنفسية
مقدم للمجلس الطبي اليمني الأعلى
مرفق نبذة عن
تخصص الرعاية التنفسية

**RCWEEK19 in Yemen has been
hosted by RCSA at MoH and
Recognized by AARC**

**الأحتفال بالأسبوع العالمي للرعاية التنفسية من
خلال إقامة يوم علمي في الرعاية التنفسية – 26
أكتوبر 2019م للعام الثاني على التوالي**



World Asthma Day 2019
Hosted for the first ever In Yemen

بالتعاون مع جامعة الرازي تم الأحتفال باليوم
العالمي للربو – 7 مايو 2019م لأول مرة في
اليمن



World COPD Day hosted for the first time in Yemen 2019

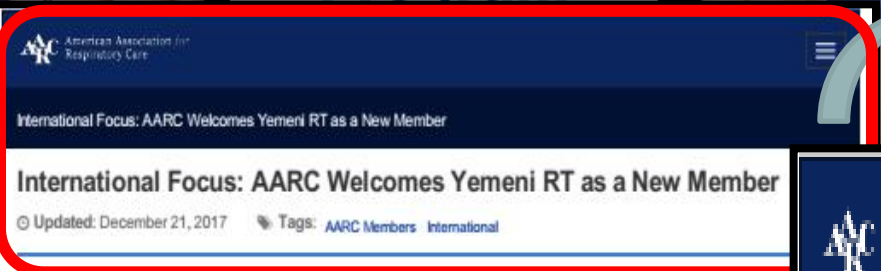
الأحتفال باليوم العالمي لمرض الأنسداد الرئوي المزمن – 21 نوفمبر 2019م
لأول مرة في اليمن



**جائزة أخصائي العلاج التنفسي في
اليمن لعام 2018م**



Interviews



Saleem Hamilah speaking at the celebration event

Joining the AARC is a good career move for any respiratory therapist. But when you are one of only a few therapists in your country, it can really set you apart from the crowd.

That's what happened recently when Saleem Hamilah, BSc, RCP, became the first Yemeni member of the Association in more than a decade.

When they learned of his new membership, his alma mater, Bilquis Medical Institute, threw a big celebration in his honor.



Interviews

AARC Fellowship Program

AARC American Association for
Respiratory Care

International Focus: AARC Welcomes Yemeni RT as a New Member

International Focus: AARC Welcomes Yemeni RT as a New Member

© Updated: December 21, 2017

Tags: [AARC Members](#) [International](#)

AARC American Association for
Respiratory Care

International Focus: AARC Welcomes Yemeni RT as a New Member

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AARC
An Official Publication of the American Association for Respiratory Care
June 2018 Vol. 42, Issue 6 www.aarc.org \$11.50

Times



This Spot
Could Be
For You

WE ARE
AARC

Recognition from American Association For Respiratory Care



Publications & Scientific Articles

EC PULMONOLOGY AND RESPIRATORY MEDICINE RESEARCHER'S COLUMN - 2019

Respiratory Care Profession in Yemen (Past, Marvelous Present and Bright Future)...!

Saleem N Hamilah
Ministry of Public Health and Population,
Yemen

COLUMN ARTICLE

It is well known that the terms such as respiratory therapy and inhalation therapy refers to one meaning term that is the specialty of respiratory care, which is known as the health care discipline that specializes in the promotion of optimal cardio-pulmonary function and health which includes the assessment, treatment, management, control, diagnostic evaluation, education, and care of patients with deficiencies and abnormalities of the cardiopulmonary system.

Respiratory care specialty joined the healthcare system as the urgent need for such a specialty because of its vital and important role in improving the outcomes of the health care services, especially the outcomes of critical care units and currently considers the heart of critical care in any hospital.

Respiratory care profession in Yemen was frozen in the past years before 2015, here we can say that the respiratory care specialty becomes one of the fastest growing allied health specialties across Yemen, it has witnessed rapidly development and remarkable progress in the past three years starting with the scientific activities carried out recently represented a turning point and a milestone for the reality of RT specialization in Yemen.

The success of the first Yemeni conference of Respiratory Care which held back on November 6 - 7, 2017 in 48 Model Hospital, its success made a value to increasing the awareness of the RT profession importance among healthcare providers in Yemen, also celebrating the international Respiratory Care Week, which held for the first time in the history of Yemen sponsored by Yemen Bilquis Medical Institute this recognized event led the American Association for Respiratory Care to writing an article about the details of the event and published it on its official website.

The scientific activities continued noticeably to the first Scientific day for Asthma that held back this year in recognition of the World Asthma Day which was the first World Asthma Day celebration event in Yemen and sponsored by Modern European Hospital in cooperation with Al-Razi University on May 7, 2019.

The profession of respiratory care in Yemen has become one of the most expanding specializations in the Yemeni hospitals, which witnessed the opening of seven respiratory care departments in 7 different hospitals during a short period between 2016 and 2019, unlike in the previous phase from 2006 till 2014 were only 4 respiratory care department in four hospitals across Yemen.

However, some public and private hospitals are still working on arranging to opening the respiratory care

EC PULMONOLOGY AND RESPIRATORY MEDICINE RESEARCHER'S COLUMN - 2019

Respiratory Care Profession in Yemen (Past, Marvelous Present and Bright Future)...!

Saleem N Hamilah
Ministry of Public Health and Population,
Yemen

Respiratory Care Services Admin. at إدارة الرعاية التنفسية
MOH established in 2019
وزارة الصحة



Republic of Yemen

Ministry of Public Health and Population

Curative Medicine Sector

General Directorate of Medical Services

Respiratory Care Services Admin. (RCSA)



الجمهورية اليمنية
وزارة الصحة العامة والسكان
قطاع الطب العلاجي
الإدارة العامة للخدمات الطبية
إدارة خدمات الرعاية التنفسية

الدليل الوطني لخدمات الرعاية التنفسية الصادر من قبل وزارة الصحة

الدليل الوطني لخدمات الرعاية التنفسية في

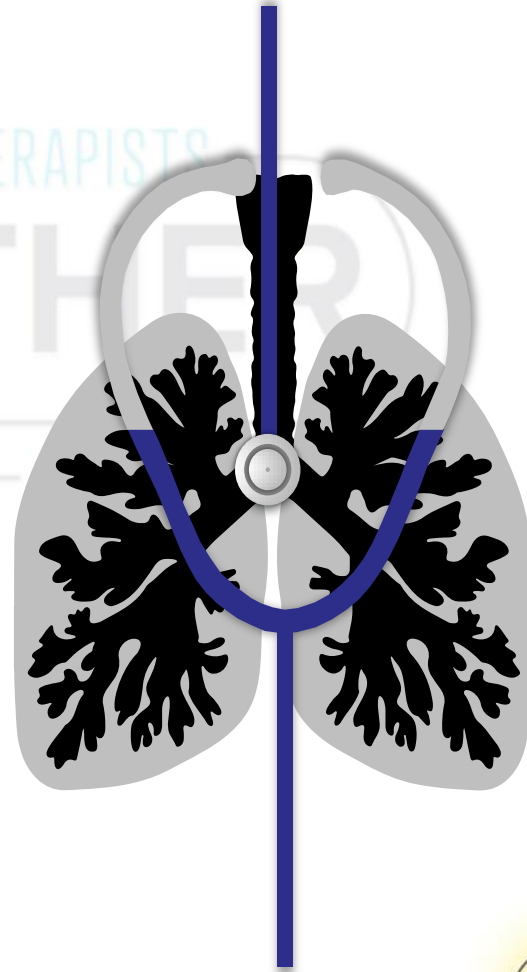
المستشفيات الحكومية والخاصة

National guide of Respiratory Care Services
in public & private Hospitals



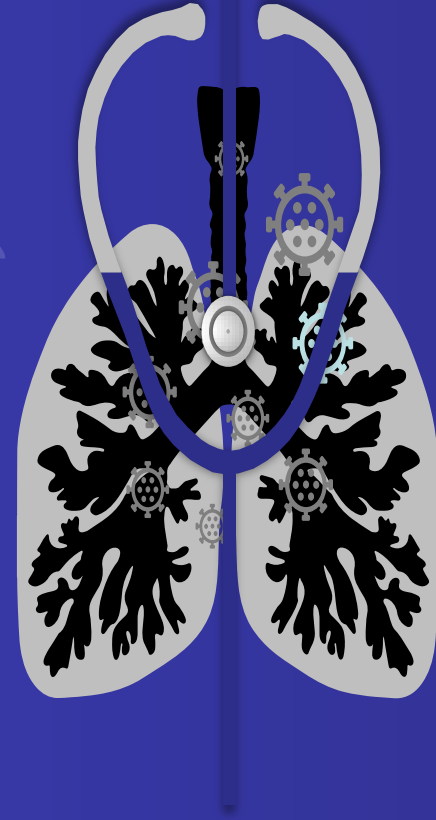
النسخة الأولى
يوليو - 2019م

IRATORY THERAPISTS
GETHER



RESPIRATORY THERAPISTS
TOGETHER
We Save Lives

شكر وتقدير الى قيادة وزارة الصحة ممثلة بمعالى وزير
الصحة الأستاذ الدكتور / طه أحمد المتوكل ووكيل قطاع
الطب العلاجي الدكتور / علي جحاف والى الدكتور علي
المفتي مدير عام الخدمات الطبية والطوارئ على
جهودهم المخلصة في تعزيز ودعم تخصص الرعاية
التنفسية في اليمن .



إدارة الرعاية التنفسية بوزارة الصحة
جميع ممارسي الرعاية التنفسية بالجمهورية اليمنية

Struggling ... to saving lives ...!

Last message ,,,,,!

- Plans should be organized to encourage all educational institutions to graduate competent RTs to serve more patients in need .

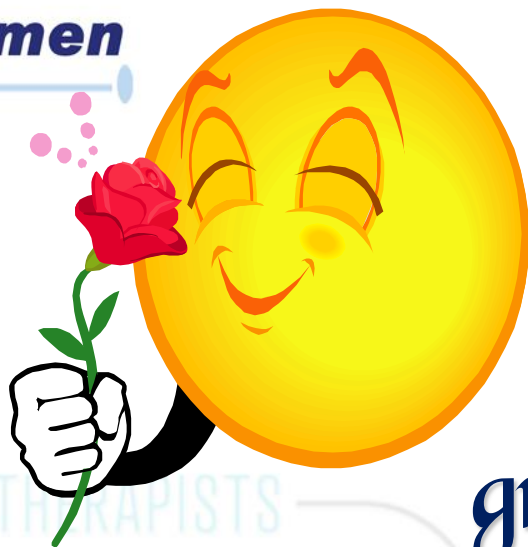


#RCWEEK20_Yemen

وسيبقى

نبض قلبي

يمنياً



Have a
great day



RESPIRATORY THERAPISTS
TOGETHER 58

We Save Lives