The Respiratory Therapist As Disease Manager

Bill Pruitt, MBA, RRT, CPFT, AE-C, FAARC
Director of Clinical Education, Senior Instructor
Cardiorespiratory Care – University of South Alabama
Mobile Alabama
Disclosures

- Speaker’s Bureau for Hill-Rom, Teleflex Medical
- Trainer for Hill-Rom
Objectives

- Discuss the changing climate in healthcare
- Understand the need to provide support and help fill the gap for patients with lung disease
- Explain the role for the respiratory therapist as a disease manager - COPD, asthma, CF, Sleep disorders (OSA, CSA, hypopnea), etc.
- Describe situations that show the RT functioning in this new role.
Hello: I am from the Southeast

- You
- Youse guys
- You guys
- You’ons
- Ya’ll
  - Wha’chall doin?
  - Where ya’ll goin?
- Inclusive – Ya’ll
- All inclusive – All ya’ll

Future tense?
- Ya’ll’ll all
The need for specific knowledge and understanding in pulmonary issues

- New guidelines and updates of the evidence bring new/different information, strategies, resources (GOLD, EPR-3, GINA)
  - A-B-C-D grid for combined assessment of COPD
  - Age-range guidelines for asthma to assess risk, impairment, severity, control

- http://www.goldcopd.com/
- https://www.nhlbi.nih.gov/guidelines/asthma/
- http://www.ginasthma.org/
The need for specific knowledge and understanding in pulmonary issues

- Increasing complexities in pharmacologic therapy for COPD and asthma
  - Omalizumab?
    - Xolaire™
  - New medications
    - Fluticasone furoate/vilanterol
      - BREO® ELLIPTA™ - LABA/ICS once daily for COPD and now - asthma
    - Aclidinium bromide
      - Tudorza™ Pressair™ – LAMA BID for COPD
    - Umeclidinium and vilanterol –
      - Anoro Ellipta™– LAMA/LABA once daily for COPD
    - Tiotropium bromide and olodaterol
      - Stiolto Respimat™– LAMA/LABA once a day for COPD
  - Delivery devices
    - Vibrating mesh
      - Aerogen™, Omron™
    - SMI
      - Combivent Respimat™ …. Soft Mist inhaler
      - Spiriva Respimat™
Exposure, risk, triggers, damage

- Need for understanding of environmental influences on managing the diseases
  - Smoking cessation and second-hand exposure
  - Irritants and allergens
Under-Treatment of COPD

- Retrospective record review July 2004 – June 2005
- 51,072 records reviewed
  - 42,565 commercial insurance patients
  - 8,507 Medicare patients
- Dx of COPD with 1 inpatient (or) 2 outpatient visits
- Examining frequency of medication use & patterns of pharmacotherapy

Findings

**Commercial group:**
- 42,565 records reviewed
  - 66% no maintenance meds:
    - 59.1% no meds at all, 7.2% SABA only
  - 18% smoking cessation claim for intervention
  - 16.6% influenza vaccination

**Medicare group**
- 8,507 records reviewed
  - 70% no maintenance meds:
    - 66%-no meds, 4.9% SABA only
  - 9.8% smoking cessation claim for intervention
  - 23.5% influenza vaccination

“This study highlights a high degree of undertreatment of COPD . . . with most patients receiving no maintenance pharmacotherapy or influenza vaccination”

“The under-management highlighted here is in agreement with a survey of primary care physicians...only 35% of physicians chose a long-acting bronchodilator (recommended by GOLD) if use of a short-acting agent had failed to manage a patient’s COPD symptoms.”

Furthermore, although 55% of physicians were aware of major COPD guidelines (GOLD or ATS/ERS guidelines), only 25% used them to guide decision-making.
Rates of rehospitalization within 30 days after discharge
Asthma in the elderly

National Institute on Aging (NIA) workshop

“Asthma is an important disease in the older adult, affecting 7% of the population older than 65 years, which is understudied and frequently underdiagnosed”

“At least 2 phenotypes exist among elderly patients with asthma; those with longstanding asthma have more severe airflow limitation and less complete reversibility than those with late-onset asthma.”

Issues with managing pulmonary patients in the current system

- Limited time to devote to teaching self-management
- Limited time to teach proper technique for inhaled medications
- No objective measurement of lung function
  - In-office pre-post spirometry
    - With adults & children >6 yrs old ~ 45% MDs used spirometry in establishing asthma diagnosis*
    - In the target population aged 35 to 70 years, we found 7.4% of patients with formerly unknown OLD.
    - Of these patients, 42% would not have been found without the screening with spirometry” *

New technology? Who keeps up with the issues here?

Respirable Dose 10%  Respirable Dose 15%  Respirable Dose 30%
Nebulizer output from 30 jet nebulizer/compressor combinations

Airway clearance techniques (ACT)
Child or parent reporting on asthma

Top 3 reported triggers from: child / parent

Asthma symptoms in past 4 weeks from child / parent

Davis KJ et al. (2011) Ped Allergy & Immun 22(2): 31-5,
Hazards of not “knowing asthma”

- Inappropriate treatment
- Lack of knowledge of controller approach - inhaled corticosteroids
- Overuse of SABA
- Monotherapy with LABA
- Bottom-line: increased morbidity and mortality

“Studies indicate that asthma is underdiagnosed and undertreated worldwide, and this has created a substantial burden on individuals and their families.”

Braman SS. “Asthma Guidelines in Day-to-day Practice.” Pulmao RJ 2012;21(2):70-75
RT as Disease Manager

- RT brings experience, skills and training that result in high quality care, standardization and consistency, aids quality of research
  - BSRT brings higher education, high quality experiences from clinical, often includes research experience, improved communication, decision-making skills
  - RT - Thorough knowledge of spirometry and quality issues
  - HR 2948, the Medicare Telehealth Parity Act.
    - Incorporates respiratory therapists into the Medicare statute in addition to certified diabetes educators, physical therapists (PT), occupational therapists (OT), speech-language pathologists (SP) and audiologists.

RT Programs in North Carolina

- 14 - AS  1 - BS
The RT Disease Manager

- Focused specialist with experience, skill, knowledge
  - Passionate about asthma and COPD
- Time to teach
- Knowledge of all resources
  - Medications
  - Devices
  - Diagnostic tools
  - Environmental assessment
- Billing and reimbursement is available
- Re-licensing and re-credentialing process contributes to quality and most recent approaches
- RRT AE-C & COPD Educator / COPD Navigator
Process for becoming an AE-C

- National Institutes of Health (NIH)
  - National Heart, Lung, Blood Institute (NHLBI)
    - National Asthma Education & Prevention Program (NAEPP)
      - Expert Panel Report-3 (EPR-3)
  - Examination
The AE-C

- **The exam** (from the NAECB Candidate Handbook)
  - 175 questions, multiple choice
    - 25 are “pre-test …quality testing” hidden in the exam
  - Questions fall into 3 domains – Recall, application, analysis
  - 4 Content areas
    - The asthma condition 20%
    - Patient and family assessment 26%
    - Asthma management 43%
    - Organizational issues 11%
The AE-C exam

- AMP – Applied Measurement Professionals
  - Validated test
  - Provides testing for licenses and credentials – respiratory therapist
  - Management support for several groups.
  - Parent company is the NBRC

- Applicant Qualification
  - Licensed or credentialed healthcare provider
    - (MD, RN, NP, RRT, CRT, RPh, OT, PT, PA-C, CSW, CHES)
  - Individuals with a minimum of 1,000 hrs experience in asthma education and counseling
AE-C stats

- North Carolina: 87 people hold a current AE-C credential
- ~ 4,700 licensed respiratory therapists = 0.76 % of RTs
  - 36 - RT
  - 36 - RN
  - 3 - PA
  - 7 - Pharm
  - 4 - 1000 hrs worker
  - 1 – MD
COPD Educator

- Course is available for respiratory therapists through the American Association for Respiratory Care (AARC)
- Provide training
  - diagnosis, assessment, treatment, oxygen therapy, medication, and disease management.
- Provide training on how to teach patients about COPD and how to motivate them to control it.
COPD Educator

- Perform assessment for a patient with COPD
  - Physical exam, pulmonary history, psycho-social
  - Smoking history
  - Office Pulmonary function testing including spirometry, pre-post bronchodilator evaluation, and oximetry.
  - 6-minute walk test, assessment for oxygen need at rest and post-exercise

- Perform smoking cessation education
  - Enroll in “Quit-Now”
  - Utilize the 5 “A-s”
COPD Educator

- Establish personalized medication care for COPD patients from GOLD guidelines
  - Educate proper technique for the inhaled devices
  - Prepare a COPD Action Plan

- Recognize common causes for miscommunication, barriers to learning and identify strategies to avoid them.

- Select the most appropriate oxygen delivery equipment to meet their needs.
COPD Educator

- Encourage participation in a pulmonary rehabilitation program to enhance QOL.

- Explain the pathophysiology of COPD in terms a COPD patient can understand.

- Recognize the signs and symptoms of malnutrition and describe its effect on COPD patients.
COPD Educator: Coordinate transition to home

- Assess the needs
  - home oxygen, inhaled medications, which devices would be most appropriate for aerosol therapy

- Provide instruction, follow-up to ensure proper technique, proper use of therapy

- Coordinate home testing for OSA

- Offer support/teaching for other issues
  - OSA, CPAP, BiPAP, co-morbid conditions
COPD Educator:
Reduce re-admission to hospital

- Maximize therapy by using the correct medications, correct delivery devices, and ensuring correct patient technique
- Call the patient to check on status
- Assist with getting proper medications, DME support
- Home visit if necessary
1st visit in “pulmonary clinic”

- How this works:
  - On first encounter with undiagnosed case (asthma, COPD) we may spend 45 min to 1 hour dedicated time
  - Gather information for new patient
    - History and physical exam
      - Auscultate, assess cough, sputum production
    - Detailed smoking history
    - Assess quality of sleep – Berlin sleep questionnaire to document snoring, HTN, sleepiness/driving issues
    - If appropriate- perform COPD Assessment Test (CAT) for symptoms or Modified Medical Research Council (mMRC) for breathlessness
1st visit - COPD and asthma

- Perform spirometry (pre and post SABA)
- Educate patient & family
- Prepare action plan (asthma and COPD)
  - Based on the EPR-3 guidelines and the GOLD guidelines
- Verify correct performance and technique for using devices
- Provide one month supply of medications
- Documentation and review by physician
- Schedule follow-up visit
  - 2 weeks if high level follow-up
  - 4 weeks otherwise
Sleep disorders - OSA

- Discuss the issues with OSA and hypopnea
  - Pathology of the disorders
  - EDS, cognitive issues, stress on body systems and increased risks

- Discuss the CPAP trial details
  - How does auto-titrating CPAP work?
  - 2-3 nights recorded, generate report
  - Return for follow-up visit in 2 weeks
  - If test is positive – prescription for CPAP therapy and provide CPAP device
  - Set-up on CPAP, follow-up in one month
  - Buy the mask and hose - Free machine
Pre-post F/V loops and V/T curves
# Pulmonary Function Analysis

## Spirometry

<table>
<thead>
<tr>
<th>Metric</th>
<th>Unit</th>
<th>Reference</th>
<th>Pre-Meas</th>
<th>% Pre Ref</th>
<th>Post-Meas</th>
<th>% Post Ref</th>
<th>% Chg</th>
</tr>
</thead>
<tbody>
<tr>
<td>FVC</td>
<td>Liters</td>
<td>3.08</td>
<td>2.52</td>
<td>82</td>
<td>3.14</td>
<td>102</td>
<td>25</td>
</tr>
<tr>
<td>FEV1</td>
<td>Liters</td>
<td>2.61</td>
<td>(1.59)</td>
<td>(61)</td>
<td>2.14</td>
<td>82</td>
<td>35</td>
</tr>
<tr>
<td>FEV1/FVC</td>
<td>%</td>
<td>85</td>
<td>(63)</td>
<td>(68)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEF25-75%</td>
<td>L/sec</td>
<td>3.06</td>
<td>(0.87)</td>
<td>(28)</td>
<td>(1.32)</td>
<td>(43)</td>
<td>52</td>
</tr>
<tr>
<td>FEF200-1200</td>
<td>L/sec</td>
<td>5.45</td>
<td>(1.97)</td>
<td>(36)</td>
<td>3.97</td>
<td>73</td>
<td>101</td>
</tr>
<tr>
<td>PEF</td>
<td>L/sec</td>
<td>6.65</td>
<td>(4.69)</td>
<td>(70)</td>
<td>5.84</td>
<td>88</td>
<td>25</td>
</tr>
<tr>
<td>FET100%</td>
<td>Sec</td>
<td>7.64</td>
<td></td>
<td></td>
<td>8.78</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>FVC</td>
<td>Liters</td>
<td>3.63</td>
<td>(2.01)</td>
<td>(56)</td>
<td>2.80</td>
<td>77</td>
<td>39</td>
</tr>
<tr>
<td>MVV</td>
<td>L/min</td>
<td>113</td>
<td>(46)</td>
<td>(41)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f</td>
<td>BPM</td>
<td>75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Patient Information

Name
ID
Age 51
Height 5 ft 3 in
Weight 113 lbs. BMI 20.0
Gender FEMALE
Ethnic CAUCASIAN
Smoker YES
Asthma POSSIBLE

Test Information

Test Date/Time
Post Time
Test Mode DIAGNOSTIC
Syst. Interpret. NLHEP
Predicted Ref Nhanes III
Value Select BEST VALUE
Tech ID
Automated QC ON
BTPS (IN/EX) 1.04

FVC Test Results

Your FEV1 is 28% Predicted (Post-Test FEV1 27% Predicted). Your Lung Age is 107

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Pre-Test</th>
<th>Trial2</th>
<th>Trial3</th>
<th>Trial1</th>
<th>Pred</th>
<th>%Pred</th>
<th>Best</th>
<th>Trial3</th>
<th>Trial1</th>
<th>Trial2</th>
<th>Chg</th>
</tr>
</thead>
<tbody>
<tr>
<td>FVC[L]</td>
<td>2.42*</td>
<td>2.42*</td>
<td>2.34*</td>
<td>2.25*</td>
<td>3.40</td>
<td>71</td>
<td>2.58*</td>
<td>2.58*</td>
<td>2.49*</td>
<td>2.18*</td>
<td>6%</td>
</tr>
<tr>
<td>FEV1[L]</td>
<td>0.75*</td>
<td>0.72*</td>
<td>0.68*</td>
<td>0.75*</td>
<td>2.69</td>
<td>28</td>
<td>0.73*</td>
<td>0.67*</td>
<td>0.73*</td>
<td>0.64*</td>
<td>-3%</td>
</tr>
<tr>
<td>FEV1/FVC[%]</td>
<td>31.1*</td>
<td>29.51*</td>
<td>28.82*</td>
<td>33.5*</td>
<td>79.9</td>
<td>39</td>
<td>28.32*</td>
<td>26.09*</td>
<td>29.38*</td>
<td>29.58*</td>
<td>-3%</td>
</tr>
<tr>
<td>PEF[L/s]</td>
<td>2.08*</td>
<td>2.08*</td>
<td>1.78*</td>
<td>1.76*</td>
<td>6.55</td>
<td>32</td>
<td>2.06*</td>
<td>2.06*</td>
<td>2.32*</td>
<td>1.66*</td>
<td>-1%</td>
</tr>
<tr>
<td>FEF25-75[L/s]</td>
<td>0.26*</td>
<td>0.26*</td>
<td>0.25*</td>
<td>0.29*</td>
<td>2.66</td>
<td>10</td>
<td>0.18*</td>
<td>0.18*</td>
<td>0.26*</td>
<td>0.17*</td>
<td>-30%</td>
</tr>
<tr>
<td>FET[s]</td>
<td>11.18</td>
<td>11.18</td>
<td>11.17</td>
<td>9.05</td>
<td>--</td>
<td>--</td>
<td>14.34</td>
<td>14.34</td>
<td>11.88</td>
<td>11.62</td>
<td>--</td>
</tr>
</tbody>
</table>

* Indicates Below LLN or Significant Post Change

Pre-Test
FEV1 Var=0.04L 5.1%; FVC Var=0.08L 3.4%; Session Quality A

Post-Test
FEV1 Var=0.06L 7.9%; FVC Var=0.09L 3.6%; Session Quality A

Syst. Interpret. Severe Obstruction and Low vital Capacity possibly due to restriction
## Modified Medical Research Council Grading symptoms (mMRC)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description of Breathlessness</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>I only get breathless with strenuous exercise</td>
</tr>
<tr>
<td>1</td>
<td>I get short of breath walking on level ground or walking up a slight hill</td>
</tr>
<tr>
<td>2</td>
<td>On level ground, I walk slower than people of the same age because of breathlessness, or have to stop for breath when walking at my own pace.</td>
</tr>
<tr>
<td>3</td>
<td>I stop for breath after walking about 100 yards or after a few minutes on level ground.</td>
</tr>
<tr>
<td>4</td>
<td>I am too breathless to leave the house or I am breathless when dressing.</td>
</tr>
</tbody>
</table>

Grading severity of airflow

Using post-bronchodilator measurements

<table>
<thead>
<tr>
<th>GOLD 1</th>
<th>Mild</th>
<th>FEV$_1$ &gt; 80%</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOLD 2</td>
<td>Moderate</td>
<td>50% &lt; FEV$_1$ &lt; 80%</td>
</tr>
<tr>
<td>GOLD 3</td>
<td>Severe</td>
<td>30% &lt; FEV$_1$ &lt; 50%</td>
</tr>
<tr>
<td>GOLD 4</td>
<td>Very severe</td>
<td>FEV$_1$ &lt; 30%</td>
</tr>
</tbody>
</table>

GOLD 2014
Mark one of the circles for each 7 pairs of statements that best describes you and enter the number you picked

<table>
<thead>
<tr>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I never cough</td>
</tr>
<tr>
<td>2. I have no phlegm (mucus) in my chest at all</td>
</tr>
<tr>
<td>3. My chest does not feel tight at all</td>
</tr>
<tr>
<td>4. When I walk up a hill of one flight of stairs, I am not breathless</td>
</tr>
<tr>
<td>5. I am not limited in doing any activities at home</td>
</tr>
<tr>
<td>6. I am confident about leaving my home despite my lung condition</td>
</tr>
<tr>
<td>7. I sleep soundly</td>
</tr>
<tr>
<td>8. I have lots of energy</td>
</tr>
</tbody>
</table>

TOTAL SCORE ______
Combined Assessment of COPD

GOLD classification of Airflow limitation

RISK

GOLD 2014

CAT < 10

mMRC 0-1

Symptoms

Breathlessness

CAT > 10

mMRC > 2

≥ 2

or

> 1 leading to hospital admission

1 (not leading to hospital admission)

0

Exacerbation history

GOLD 2014
Victory Health Partners
Respiratory Therapy Patient Visit

Check one: 1st respiratory visit: __ Follow up visit: __

Name: ___________________________ No: ___________________________ Date: __________


Progress since last visit: Improved? ______ Worsened? ______ No change? ______

Diagnosis: ______________________________

Incidence in last month: Cough/sputum:

Wheezing: ____________________________ Activities/work loss:

Chest tightness: _______________________ Sleep loss:

Short of breath: _______________________ Hospitalization/ED visits:

Breath sounds: ________________________

Smoking history (pk yrs): __________________

Family history: ________________________

Occupational exposures: __________________

Allergies: ____________________________

Other findings: ________________________

Current respiratory medications (dose & freq):

Pulmonary Function Testing/Spirometry results

FVC Pre % pred Post % change Post % pred (calculated)

FEV1

FEV1/FVC

* Key values for asthma/COPD guidelines

Tx documentation ______________________

Spo2: _______ Pulse: _______ Asthma action plan given: _______ Changed: _______

Patient's goals/concerns: ____________________________

Education:

☐ Disease facts
☐ Triggers
☐ Exacerbations
☐ Meds/Technique
☐ Exercise/Activity
☐ VHP manual on COPD
☐ VHP manual on Asthma
☐ Vaccinations
☐ Smoking cessation
☐ Diet/nutrition

Plan:

Therapist sig: ____________________________
Interview form

- **Diagnosis:** _________________________________
- **Incidence in last month:** 
  - Cough/sputum: __
  - Wheezing: __
  - Activities/work loss: __
  - Chest tightness: _
  - Sleep loss: __
  - Short of breath: __
  - Hospitalization/ED visit
- **Breath sounds:** ____
- **Smoking history (pk yrs):** __
- **Family history:** ___
- **Occupational exposures:** __
- **Allergies:** ___
- **Other findings:** ____
Interview form

Current respiratory medications (dose & freq):

Pulmonary Function Testing/ Spirometry results

<table>
<thead>
<tr>
<th></th>
<th>Pre % pred</th>
<th>Post % change</th>
<th>Post% pred (calculated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FVC</td>
<td>_______</td>
<td>_______</td>
<td>_______</td>
</tr>
<tr>
<td>FEV1</td>
<td>_______</td>
<td>_______</td>
<td>_______*</td>
</tr>
<tr>
<td>FEV1/FVC</td>
<td>(____)</td>
<td>(____)</td>
<td>(___<em>*)</em></td>
</tr>
</tbody>
</table>

*Key values for asthma/COPD guidelines

Tx documentation: ______________________________________________

SpO2: ____ Pulse: ____ Asthma action plan given: __ Changed: ____

Patient’s goals/concerns: _________________________________________
Interview form

- Education:
  - Disease facts
  - Triggers
  - Exacerbations
  - Meds/Technique
  - Exercise/Activity
  - Manual on COPD
  - Manual on Asthma
  - Vaccinations
  - Smoking cessation
  - Diet/nutrition
Interview form – The PLAN

1. Current meds, strength, dose
2. New or changed meds
   1. Bronchodilators, antibiotics, steroids, smoking cessation aids
3. Stop smoking?
4. Vaccinations? (Flu, pneumonia)
5. Considerations? (CPAP trial, consult)
6. Follow-up visit scheduled
Follow-up visits

- For COPD, asthma
  - Check on symptoms
  - Check on adherence to established plan
    - Accessing medications, using as prescribed
  - Assess effectiveness of medications
  - Verify inhaler technique
  - Reinforce education
    - on disease, triggers, medications, handling exacerbations
  - Re-visit comorbid conditions (OSA, GERD)
  - Are referrals needed for other needs?
    - i.e. to primary care or cardiology
Action plans – ASTHMA (given)

- Suggestion: COPD Action Plan
  - What medications to take, and when
  - Follows the asthma self-management approach
  - Reminder of the need to get vaccinated
  - Arrangements for pulmonary rehabilitation
  - Contact information for a smoking cessation counselor
  - Signs of an impending exacerbation
    - Steps to take if an exacerbation may be developing
  - Primary provider’s contact information
The Victory Health Partners (VHP) experience

- Victory Health founded by Dr. Lightfoot
  - Faith-based clinic for the uninsured adults in the Gulf coast regions of Alabama, Mississippi, and Florida
  - Operations funded by donations (from companies, foundations, churches, individuals) and patient fees
  - 15,800 patients seen in 2013 - over 19,000 patient visits to VHP

- Pulmonary clinic operating since 2003 – started at the beginning of VHP

- Pulmonary clinic “Breath of Life”
  - One day every week - 8:30 AM to noon
  - 9-12 patients /week
  - Over 5,000 patients seen by RTs over the time at VHP
VHP Pulmonary Clinic

- Primary staffing of 2 RRT, AE-C faculty
  - plus students in the Cardiorespiratory Care program at USA in clinical rotations

- Tests: Spirometry, Auto-titrating CPAP, CXR

- Scheduling 9 to 12 patients weekly for initial visits and follow-up
Interview with Dr. Lightfoot

How has this changed your time committed to caring for people with pulmonary symptoms?

“Instead of having to spend all the time in the provider’s visit for diagnosis, education, etc. – we are able to send them to the RTs and get them accurately diagnosed, and have the education taken care of so that when we see them, they are well on their way. In terms of time commitment? Much less time is needed to take care of these patients when they reach our office.”
How would you assess the value of the respiratory therapist?

“This service has been excellent ... to be able to accurately diagnose the patient and to begin a treatment plan, and to have the patient **understand their diagnosis and their treatment plan.** Then we can follow up in the medicine clinic to see how they are doing on that, to adjust or change whatever. This is tremendous for our patients who really wouldn’t have any access to spirometry or education at all otherwise.”
Often the RT provides the first accurate look at the patient’s pulmonary status

“A lot of our patients may have been diagnosed clinically in the past and you’re not sure if that is an accurate diagnosis or not because they never got spirometry. So to be able to confirm a diagnosis is probably how I should have described the RT contribution. … or sometimes even change a diagnosis they have been carrying with them for all this time. We may shift to a more accurate diagnosis.”
Have you had comments from the patients about the RTs?

- “We’ve had **great feedback from the patients** in all aspects – not only the care, the amount of care, the attention, the education they get, but also being able to help get their medicines and coordinate the pulmonary medicine and to be able to follow-up on that.”

- “The sleep study part of what we do for OSA has been a great asset.”
Dr. Lightfoot continues with patient comments

- “Once again- clinically you can say a patient has this (OSA) but you don’t know for sure.”

- “To be able to do a home sleep study to accurately diagnose and to put them on the appropriate CPAP pressure along with a machine – it is impossible for them otherwise.”

- “I love it when the patients come back and say, ‘I haven’t slept this good in years’.”
Have any patients requested to not be seen or followed-up by the RTs?

“No – except for a patient who just flat denied that he had any problem and didn’t want to come back through the pulmonary clinic. There haven’t been any problems at all with the RTs or with their treatment at all.”
In patients who come in c/o dyspnea, has the RT assessment been helpful to distinguish pulmonary versus non-pulmonary causes for their dyspnea?

“Extremely – we are able to send patients to cardiologist to do the cardiac work-up to do the cardiac part of it but they can’t do the pulmonary part of it. To be able to distinguish the two and be able to exclude pulmonary causes as the etiology - we know we can proceed on with the cardiology part … that is extremely important.”
“Probably one of the greatest things for a smoker to see is to get feedback on what his spirometry is and the idea of the age of his lungs. It’s not real to them otherwise. We don’t have a real smoking cessation class here but we have that part of the education and we are able to do that in the medical clinic and they have access to other places and programs that are doing this, research and so forth.
Smoking cessation...

- It makes a huge difference for patients to understand what their smoking really is doing in a real way and then have, “This is where you need to go; this is how we can help you do that.”

- The objective measurement... I love the ‘age of your lungs’ ...that gets their attention.”
Have the respiratory therapists brought any “surprises” in caring for your patients?

“There have been times when clinically we thought this is what they have… this is what they probably should have had… based on the odds of it but then the spirometry comes back totally different or normal spirometry despite their symptoms or whatever.”

“Or the patient who had vocal cord dysfunction – he was being treated for asthma – and he actually didn’t have any trouble with asthma and we got him to somebody to look at that (meaning - RT). Or the patient who has symptoms that didn’t seem that bad – up and walking around – and the spirometry is horrible. **They don’t perceive their problems**… It’s just the way they’ve always been. Once we do the measurement and we coordinate their care and then see how much better they are doing with treatment …”
What has been the most valuable aspect of having the RTs as case managers?

“The biggest advantage is to the patient – they get so much better care than we could offer just alone in the medical office or perhaps just alone in a pulmonary office. To be able to combine the two and coordinate care is even better. Our patients would never have access to this – probably would not seek it, could not afford it because of the expense. I know we are making a difference in their live and their health, overall wellness by doing this.”
Codes for smoking cessation

- **99406** – Smoking and tobacco-use cessation counseling visit; intermediate, greater than 3 minutes up to 10 minutes.
- **99407** – Smoking and tobacco-use cessation counseling visit; intensive, greater than 10 minutes

- **G0436** – Smoking and tobacco cessation counseling visit for the asymptomatic patient; intermediate, greater than 3 minutes, up to 10 minutes
- **G0437** – Smoking and tobacco cessation counseling visit for the asymptomatic patient; intensive, greater than 10 minutes
  - (Physician Office/Clinic)

- **C9801** – Smoking and tobacco cessation counseling visit for the asymptomatic patient; intermediate, greater than 3 minutes, up to 10 minutes
- **C9802** – Smoking and tobacco cessation counseling visit for the asymptomatic patient; intensive, greater than 10 minutes
  - (Hospital Outpatient Setting)

- **S9075** – Smoking Cessation Treatment
- **S9453** – Smoking Cessation Classes, non-physician provider, per session

www.aarc.org/resources/coding/CodingGuidelines from Nov 2013 (accessed 5/2/14)
Codes for pt. education, therapy, spirometry

- **94664** – Demonstration and/or evaluation of patient utilization of an aerosol generator, nebulizer, metered dose inhaler or IPPB device can be used demonstrating (teaching) patients to use an aerosol generating device property.

- **98960** – Education and training for patient self-management by a qualified, non-physician health care professional using a standardized curriculum, face-to-face with the patient (can include caregiver/family) each session 30 minutes: individual patient.
  - □□**98961** – 2 – 4 patients
  - □□**98962** – 5 – 8 patients

- **94669** – Mechanical chest wall oscillation to facility lung function, per session

- **94640** – Pressurized or non-pressurized inhalation treatment for acute airway obstruction or for sputum induction for diagnostic purposes (e.g., with an aerosol generator, nebulizer, metered dose inhaler or intermittent positive pressure breathing [IPPB] device)

- **94644** – Continuous inhalation treatment with aerosol medication for acute airway obstruction; first hour

- **94010** – Spirometry, including graphic tracing, total and timed vital capacity, expiratory flow rate measurement(s), with or without maximal voluntary ventilation (MVV)

www.aarc.org/resources/coding/CodingGuidelines from Nov 2013 (accessed 5/2/14)
Codes for Pulm rehab and 6-minute walk

- **G0424** - Pulmonary rehabilitation, including aerobic exercise (includes monitoring), per session, per day
- **G0237** – Therapeutic procedures to increase strength or endurance or respiratory muscles, face to face, one on one, each 15 minutes (includes monitoring)
- **G0238** – Therapeutic procedures to improve respiratory function, other than described by G0237, one on one, face to face, per 15 minutes (includes monitoring)
- **G0239** – Therapeutic procedures to improve respiratory function or increase strength or endurance or respiratory muscles, two or more individuals (includes monitoring)
- **94620** – Pulmonary stress testing; simple (e.g., 6-minute walk test prolonged exercise test for bronchospasm with pre- and post-spirometry and oximetry)

www.aarc.org/resources/coding/CodingGuidelines from Nov 2013 (accessed 5/2/14)
“I can see primary care doctors, family practice, internal medicine, who probably see a tremendous amount of asthma and COPD like we do, or even any kind of pulmonary problems— **I can see a huge advantage for their patients** … and the added benefit for the doctors is that they don’t spend that time doing education which is not reimbursable for them really—it doesn’t extend their own codable billing process.”
Private practice utilizing the RT as case manager...

“IT’s like using nurse practitioner, PA… any type of other health care provider that can extend what you need to do would primarily number one: benefit the patient and number two: benefit the doctor since they (the RT) would be giving much better care in the long run.”
“I think we have a unique model in what we do and how we do – I really appreciate over the years that we have been doing this and the benefit for the patient. I think this model can be expanded into other practices.”

“A travelling therapist - being able to have spirometry and to sit with the doctor and say ‘Here are my suggestions’ and ‘What do you think’ … discussing the case like we do it here… one-on-one.”
Patient care model?
Who gets added to this strategy?
Conclusions

- Billing codes are available for the activities of the respiratory therapist to cover or offset costs.
- Physician time is returned to the physician.
- This model operates under the “assess and treat” approach using nationally-accepted guidelines of care as a framework.
Conclusions

- The right RRT with AE-C credentials and COPD Educator training can take the care of pulmonary patients to a whole new level
  - COPD, Asthma, Sleep disorders, Smoking Cessation, medications, teaching, disease management
  - All these areas and more move to high level of quality and continuity that has not been present otherwise.

- Patients benefit from this approach – we have seen the proof in our experience
Thank you for listening!

Bill Pruitt, MBA, RRT, CPFT, AE-C, FAARC
Director of Clinical Education, Senior Instructor
Cardiorespiratory Care – University of South Alabama
Mobile Alabama

251-445-9284
wpruitt@southalabama.edu