The Respiratory Therapist as Disease Manager

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Dedicated to my wife and life-partner Mimi, who suggested years ago that I write a book. I thought I might just do that. Your continued love and support are a beacon lighting the way. Thank you for our beautiful family. To my children Sean, Kevin, Melissa, and Danielle, of whom I am so proud, and who as adults are now teaching me a thing or two about being a better human being.

Brief Contents

Contents

Foreword

At some point in our younger years, we made the decision to dedicate our lives to helping others and caring for the sick. We are fortunate to have the opportunity to bring health, joy, and compassion to others like perhaps no other profession is capable of. The daily challenges of health care can become exhausting and often lead to a very tired drive home at the end of our workday, yet we continue to wake up the next day eager to go help and attend to those in need. It is our honor and privilege to serve our patients, but there is no greater satisfaction than to work hand-in-hand with exemplary individuals like Harry Leen.

I have encountered many people during the course of my training and career, but Harry is one of the most dedicated and caring individuals I have met. His devotion to others is second to none. Harry has the ability to connect with our patients during their most weak and vulnerable moments. He is a resource and a teacher for many in the respiratory field. I have worked with Harry for years, and he has been a driving force for change within our health system. Together we have developed educational tools and programs for our respiratory patients, which have ultimately led to better patient outcomes.

This book is just an example of his desire to leave his mark on the respiratory field, and it is my honor to introduce the next chapter of his career.

Jose Soto-Soto, MD
Chief of Pulmonary and Critical Care
Ascension Health
Jacksonville, FL

Preface

This text was written for students and practicing clinicians. It is intended to be a foundational text for the therapists who desire to augment their acute care and technical skills with a knowledge base that will enable them to competently perform the duties of a pulmonary disease manager. Recognizing that the role of *disease manager* has many connotations, a disease manager for the purposes of this text is a professional who uses his or her expertise to optimize the quality of life of the patient with chronic disease.

Chapter Breakdown

Chapters 1-5 may be considered as the "clinical" chapters of this text. The pace of these chapters is rapid because it is assumed that the reader has a preexisting understanding of these chronic illnesses. Many readers may discover new knowledge as described in sections such as epidemiology, clinical considerations, and management for each chapter. Additionally, many clinicians may learn new facts about the treatment and classification of pulmonary hypertension.

Chapters 6 and 7 discuss the origins of the discipline of case management and the role of the respiratory therapist as case manager. The case manager role for respiratory care is evolving as a component of disease management programs that are developing in response to the need to reduce hospital readmission penalties. Diverse topics such as health insurance, durable medical equipment, advance directives, and patient screening are covered in these chapters.

Chapter 8 discusses home respiratory support, which is a logical follow-up to case management. Topics presented in this chapter include home oxygen therapy, airway clearance devices, positive airway pressure devices, and home mechanical ventilators. Insurance coverage criteria for respiratory therapy devices will represent new knowledge for many readers.

Chapter 9 illustrates the role of respiratory therapist as care transition coordinator (CTC) or navigator. Topics such as patient education and care coordination are discussed.

Chapters 10-12 provide an introduction to counseling approaches, such as motivational interviewing, which many readers may be familiar with. Additional theoretical topics include health behavior theory and the common-sense model, an ingenious conceptual framework that enables clinicians to examine the illness perceptions of patients and correct inaccurate or incomplete mental representations of their disease, and thus improve their self-management skills.

Chapter 13 wraps things up by illustrating the role of respiratory therapist as self-management trainer. This chapter is replete with case studies that exemplify the use of motivational interviewing, health behavior theory, and the examination of illness perceptions when counseling patients with problems such as medication adherence and tobacco use.

How to Use This Book

- Each chapter of the book begins with a list of **Chapter Objectives** to help you focus on the most important concepts in that chapter.

OBJECTIVES

1. Describe the burden of asthma.
2. Enumerate the risk factors for asthma.
3. Describe the classification of asthma.
4. Discuss the medications employed in the management of stable and exacerbated asthma.
5. List the therapeutic interventions for the management of asthma.
6. Identify the characteristics of asthma-COPD overlap syndrome (ACOS).

- **Tables** are used to highlight important information, such as **Table 2-4** Quick-Relief Medications.

TABLE 2-4
Quick-Relief Medications

Medication	Dose	Frequency
Short-Acting Beta$_2$-Agonists		
Pressurized metered dose inhalers		
Racemic albuterol (Ventolin HFA, Proventil HFA, Pro-Air HFA)	90 µg/puff	prn; q4h–q6h
Levalbuterol (Xopenex HFA)	45 µg/puff	prn; q6h
Nebulization		
Racemic albuterol (Ventolin, Proventil, generic)	2.5 mg (0.5% solution)	prn; q4h–q6h
Levalbuterol (Xopenex)	0.31 mg and 0.63 mg	q6h–q8h
Metaproterenol (Alupent)	5% solution	prn; q4h–q6h
Oral tablets		TID-QID
Albuterol (Repetabs, Volmax)	2 and 4 mg	prn; q4h–q6h
Metaproterenol	10 and 20 mg	
Syrup		TID-QID
Albuterol	2 mg/5 mL	prn; q4h–q6h
Metaproterenol	10 mg/5 mL	
Subcutaneous injection		
Terbutaline	1 mg/mL injection	prn; q4h–q6h
Anticholinergics		
Pressurized metered dose inhalers		
Ipratropium bromide (Atrovent)	18 µg/puff	bid–qid
Nebulization		
Ipratropium bromide (Atrovent)	500-µg solution	bid–qid

bid, twice a day; HFA, hydrofluoroalkane; prn, as needed; qid, four times a day; q4h, every 4 hours; q6h, every 6 hours.

Hess, D. 2016. *Respiratory Care: Principles and Practice*, 3rd ed. Burlington, MA: Jones & Bartlett Learning.

- This text is highly illustrated with diagrams and photos demonstrating a variety of concepts, such as **Figure 8-6**, Transtracheal Catheter Placement.

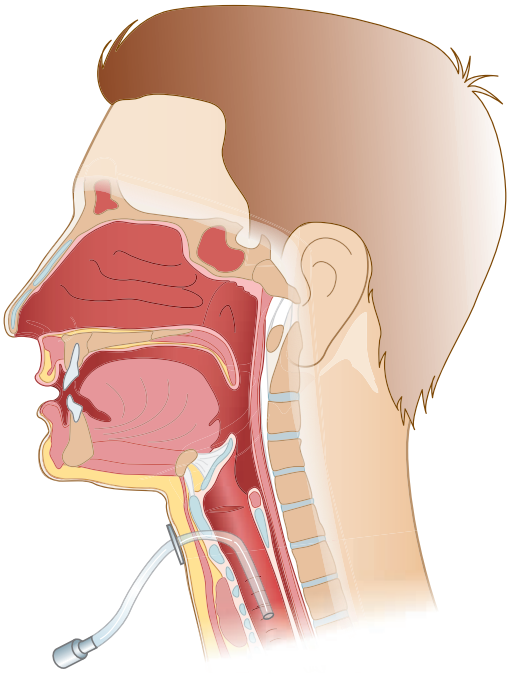

FIGURE 8-6 Transtracheal catheter placement.
Hess, D. 2016. *Respiratory Care: Principles and Practice*, 3rd ed. Burlington, MA: Jones & Bartlett Learning.

- Throughout the text, key points are illustrated and important information is highlighted in **Boxes** to ensure comprehension and to aid the study of critical materials.

BOX 9-2 Educational Recommendations of the National Asthma Education and Prevention Program for Patients with Asthma

Teach basic facts about asthma.

Teach the necessary medication skills (techniques, delivery devices, and dosing regimens).

Teach self-monitoring skills: symptom-based, peak flow monitoring.

Teach relevant environmental control/avoidance strategies.

Provide a written asthma exacerbation treatment plan.

Modified from National Asthma Education Program and National Heart, Lung, and Blood Institute. 2007. Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma." Bethesda, MD: National Institutes of Health. NIH Publication 07-4051.

- Chapters that lend themselves to it conclude with a **Case Study** to help readers review and put into practice what they have learned.

Case Study

A 30-year-old white woman has been admitted to the hospital because of an asthma exacerbation. She was diagnosed with adult-onset asthma 2 years ago. During the past 2 months she visited the emergency department twice for exacerbations that were successfully treated and did not require hospital admission. She is classified as having moderate persistent asthma. She is a restaurant worker and is currently uninsured.

As a pulmonary disease navigator, you have been consulted to assess and educate the patient on asthma management. From a chart review, you ascertain that the patient has been on an ICS/LABA medication regimen and has a SABA inhaler for use as needed for symptom relief. The patient states that she has been following up with a public health clinic. From your assessment you have discovered that the patient has not been taking her LABA medication because she does not think it is effective. Additionally, you discover that she has not been monitoring her symptoms or checking her PEF. There is obviously a problem with the patient's adherence to her treatment regimen. This clinical scenario serves as an introduction to the use of self-management training skills, to be addressed later in the text.

Question:

What steps should you take to improve the patient's adherence to her treatment regimen?

Instructor and Student Resources

Qualified instructors will receive a full suite of instructor resources, including the following:

For the Instructor

- Comprehensive, chapter-by-chapter slides in PowerPoint format
- A test bank containing questions on a chapter-by-chapter basis
- Answers to the in-text and additional Case Studies

For the Student

- Additional Case Studies available online as writeable PDFs
- Answers to the Testing Your Knowledge questions that conclude each chapter

About the Author

Harry Leen, RRT, MPH, is a continuum of care coordinator at Ascension St. Vincent's Riverside in Jacksonville, Florida. He has served in the profession of respiratory care in the capacity of patient care, management, education, and case management for almost four decades. He is a member of the American Association for Respiratory Care and the Florida Society for Respiratory Care. Harry received his respiratory therapy technician certificate at the College of Boca Raton, which is now known as Lynn University; his Bachelor of Science degree from Western Michigan University; and his Master of Public Health degree from University of North Florida.

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