

# **Educating Pediatric Professionals: Textbooks vs. Clinical Practice vs. Guidelines and Position Papers**

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- I have no relevant financial relationships with manufacturers of any commercial products or services
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# Introduction

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- Proliferation of new modalities of medical education over the past 20 years
- Importance of continuing medical education (CME) throughout one's career to keep up to date
- Which modalities are more effective and efficient?
- Learners' circumstances and learning styles require availability of several modalities



# Examples of New Modalities

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- On-line medical textbooks
- On-line CME (Webinars)
- Quick Reference Guides
- Professional Society guidelines and policy statements
- Maintenance of Certification (MOC) requirements
- Learning collaboratives



# Importance of CME

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- Medical knowledge doubles every five years
- Licensure requirements
- Changes in medical practices – electronic health records, value based care, accountable care organizations, team based care
- Increasing importance of quality improvement requirements



# Effective and Efficient Learning Modalities

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- New field of medical education research
- Effective: Learner achieves desired goals
- Efficient: Goals achieved in shortest possible time with least amount of use of resources
- Critically important as medical professionals have limited time for learning
- Importance of optimizing patient care in a timely fashion (IOM – “Crossing the Quality Chasm”)



# Learners' Circumstances and Learning Styles

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- Medical professionals engaged in a wide array of practice environments
  - Solo, small groups, large groups, hospital-based, in-patient, out-patient, urban, suburban, rural
- Older vs. younger
  - Years since completion of training
- Preferred learning styles
  - Classroom instruction, on-line learning, group or collaborative learning
- Importance of “reflection”
  - How can I practice better?



# Textbooks

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- Traditional, time-honored, respected
- Authored and edited by experts in their fields
- Require years to develop and publish
- Outdated by the time they are published
- Typical five-year new edition does not keep up with pace of new knowledge
- Recommendations based on “expert opinion” rather than “evidence-based”



# Textbooks (Cont.)

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- Usually not readily available in patient exam room
- Suitable for education of medical students and residents
- Not as useful for busy practicing professionals
- Younger professionals more familiar with and adept at electronic sources using hand held devices, tablets and laptop computers



# Clinical Practice

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- Rapidly growing area of medical education
- Allows medical practitioners to tailor education to meet their needs
- Convenient – ability to acquire clinical information while in exam room with patient or after hours at home; available on laptops, tablets, smartphones
- Particularly useful for quality improvement
- Multiple venues being developed



# Clinical Practice Venues

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- On-line quick reference guides
  - “Up-To-Date”, “Pediatric Care Online” (PCO), “MedlinePlus”
- Continuing Medical Education (CME)
  - in person or on-line Webinars
- Maintenance of Certification (MOC) quality improvement activities
- Learning Collaboratives



# On-Line Quick Reference Guides

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- UpToDate
- Covers medical conditions affecting patients of all ages
- Authored by experts in all medical specialties; evidence-based
- Very popular with residents and medical students; less so with practicing professionals
- Provides CME credit
- Drug info



## FEATURES

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# On-Line Quick Reference Guides

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- Pediatric Care Online (PCO)
- Electronic version of the AAP Textbook of Pediatric Care
- Authored by experts and reviewed and edited by AAP subspecialty sections for accuracy
- Search by title or alphabetical listing
- Outline form allowing user to pick area of interest
- Also contains AAP Periodicity Table, drug information, links to other AAP textbooks, patient information handouts





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Well Child Resources ▾

Policy

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News

DID YOU KNOW? Pediatric Care Online™ subscribers get **FULL ACCESS** to Red Book® Online and Pediatric Patient Education™?

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## Point-of-Care Quick Reference

More than 250 topics from key American Academy of Pediatrics publications outlined for quick answers and efficient problem-solving

- Abdominal Distention
- Anuria and Oliguria
- Head Injuries
- Increased Intracranial Pressure
- Irritability
- Asthma

[All Topics & Symptoms >](#)

## Well Child Resources

Bright Futures publications, an interactive periodicity schedule, and questionnaires and forms for each age visit help guide each well visit and identify areas of concern. Patient handouts help reinforce important topics discussed during the visit.

[Bright Futures](#)
[Bright Futures Pocket Guide](#)
[Interactive Periodicity Schedule](#)
[Performing Preventive Services](#)
[Bright Futures Questionnaires & Forms](#)

## News

**New! Common Pediatric Medical Procedures on PCO** *Posted 3/5/15*  
Pediatric Care Online is pleased to announce its new video series.

**Cefotaxime Shortage** *Posted 2/26/15*

A shortage of intravenous cefotaxime sodium is being reported by the FDA.

**Update to Early Release of 2015 Red Book Chapter—Measles**

*Posted 2/24/15*

Since the chapter was first released on February 9, additional information was added on February 20 to clarify the use of Vitamin A and MMR vaccination during an outbreak.

**What's the Latest with the Flu?**

*Posted 2/24/15*

Flu activity has decreased in some areas, but overall remains elevated in the United States.

**2015 Recommended Childhood and Adolescent Immunization Schedules Now Available** *Posted 1/26/15*

The recommended immunization schedules for children and adolescents are now available and updated to reflect current

## Pediatric Care Updates

December 2014

Attention-Deficit/Hyperactivity Disorder and Substance Abuse

December 2014

Clinical Practice Guideline: The Diagnosis, Management, and Prevention of Bronchiolitis

December 2014

Comprehensive Evaluation of the Child With Intellectual Disability or Global Developmental Delay

## Rx Pediatric Drug Lookup

An essential pediatric and neonatal drug lookup, continually updated. Powered by Lexicomp.

- Calcium Carbonate
- Reference Values for Children
- Naproxen
- Lactobacillus
- Lactulose

[Browse All Drugs >](#)



# On-Line Reference Guides

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- “MedlinePlus”
  - Published by the USA National Library of Medicine
  - Authored by experts
  - Contains health topics, medical dictionary and encyclopedia, drug info
  - Covers common and rare diseases
- Can be integrated into the patient’s EHR





Health Topics

Drugs & Supplements

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ESPAÑOL

## About MedlinePlus

MedlinePlus is the National Institutes of Health's Web site for patients and their families and friends. Produced by the National Library of Medicine, it brings you information about diseases, conditions, and wellness issues in language you can understand. MedlinePlus offers reliable, up-to-date health information, anytime, anywhere, for free.

You can use MedlinePlus to learn about the latest treatments, look up information on a drug or supplement, find out the meanings of words, or view medical videos or illustrations. You can also get links to the latest medical research on your topic or find out about clinical trials on a disease or condition.

### A Message from the Director



#### Dr. Donald A.B. Lindberg, Director, National Library of Medicine

View Dr. Lindberg's [welcome](#) (Quicktime video 1.2 MB, 51 seconds)

Welcome to MedlinePlus, a goldmine of good health information from the world's largest medical library, the National Library of Medicine. Health professionals and consumers alike can depend on it for information that is authoritative and up-to-date. MedlinePlus has extensive information from the National Institutes of Health and other trusted sources on over 900 diseases

and conditions. There are directories, a medical encyclopedia and a medical dictionary, easy-to-understand tutorials on common conditions, tests, and treatments, health information in Spanish, extensive information on prescription and nonprescription drugs, health information from the media, and links to thousands of clinical trials. MedlinePlus is updated daily and can be bookmarked at the URL: <http://medlineplus.gov/>. There is no advertising on this site, nor does MedlinePlus endorse any company or product.

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[Guide to Healthy Web Surfing](#)

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[Training Materials](#)

# In-Person CME

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- Long tradition; credit provided
- Expensive
  - Time and money
- Various sponsors
  - Industry, medical societies and organizations
- “Potpourri” programs may not be specific to learner’s needs
- Unfortunately, studies show professionals rarely change their clinical practices after attendance



# On-Line CME (Webinars)

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- Becoming very popular, especially with younger, tech savvy professionals
- Convenient- no travel required; many can be accessed at any time
- Learner can choose specific topics of interest
- Provide CME credit if learner answers a few questions at the end
- More likely to be sponsored by medical societies and organizations



# Maintenance of Certification (MOC)

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- Required for recertification by all medical specialty boards since 2010
- ABP
  - Five-year cycle
  - Newest component: Part IV - evidence of quality improvement in practice
- Several methods available to obtain credit
  - Practice Improvement Modules (PIMS)
  - AAP EQIPP modules
  - Participation in QI Collaboratives
  - Approved practice specific QI projects
- Goal: Improve quality of care provided for patients (documented)





# ABP PERFORMANCE IMPROVEMENT MODULES (PIMS)

HOME • MAINTAIN CERTIFICATION • PERFORMANCE IN PRACTICE (PART 4) • ABP PERFORMANCE IMPROVEMENT MODULES (PIMS)

ABP Performance Improvement Modules (PIMs) are web-based tools that enable you, as a pediatrician, to implement improvements in clinical care using quality improvement methods. PIMs guide you through the process of collecting and analyzing practice data over time and documenting improved quality of care. You can conduct this activity within your practice, working with your own patients, and can work in collaboration with other pediatricians.

An ABP PIM allows you to:

- Collect the relevant prospective performance data using visit forms downloaded from the PIM, or using online survey tools.
- Enter performance data (baseline through interventions) into the PIM, over time.
- Select improvement strategies suggested by the PIM.
- View performance feedback run charts on summary measures calculated by the PIM.
- Work independently or compare your progress with other colleagues.
- Link to external resources from within the PIM.

To view a demonstration of the PIM please select from the drop down list below. After viewing the demonstration, should you choose to begin the PIM please follow the instructions listed at the bottom of this page.

## PERFORMANCE IN PRACTICE (PART 4)

ABP PERFORMANCE IMPROVEMENT MODULES (PIMS)

APPROVED QI PROJECTS AND INITIATIVES

CREDIT FOR PUBLISHED QI ARTICLES

CREDIT FOR QI POSTERS

SUCCESS STORIES AND RESULTS

MAINTENANCE OF CERTIFICATION FAQ

**FAQ**





EQIPP Home

QI Basics

Teamwork Tips

My EQIPP Groups

## EQIPP Courses

## Available Now

**EQIPP: Asthma - Diagnosing and Managing in Pediatrics**

View Course Details and Register available through 01/25/2016

**EQIPP: Eliminating Tobacco Use and Exposure to Secondhand Smoke**

View Course Details and Register available through 10/09/2017

**EQIPP: GER or GERD? Diagnosis and Management**

View Course Details and Register available through 05/01/2017

**EQIPP: Growth Surveillance and Linear Growth Failure**

View Course Details and Register available through 02/25/2017

**EQIPP: Immunizations - Improve Your Practice Rates**

View Course Details and Register available through 06/13/2016

**EQIPP: Medical Home**

View Course Details and Register available through 11/26/2017

**EQIPP: Newborn Screening: Evaluate and Improve Your Practice**

View Course Details and Register available through 09/18/2015

**EQIPP: Oral Health in Primary Care**

View Course Details and Register

## EQIPP Can Help Improve Care



Deliver high quality care to every child in your practice and improve office efficiency using basic improvement methods and practical strategies and tools proven to get results. EQIPP, a unique online learning program developed by the American Academy of Pediatrics (AAP) weaves improvement principles and concepts with pediatric-specific clinical content.

## How EQIPP Works

EQIPP provides the information, tools and guidance needed to make systematic and continuous practice improvements on such topics as asthma, immunizations, GERD, Bright Futures, newborn screening, tobacco control and others. Using built-in online tools, EQIPP enables you to collect, analyze, and measure data over time and make small, rapid cycles of change. Successful changes proven to improve office efficiency and patient care can then be implemented into practice. You can also collaborate with other physicians in your practice or area to accelerate improvement. You will be able to transfer the skills you learn in EQIPP to other clinical and practice management topics. [Click here to view the workflow of an EQIPP course.](#)

## Earn Valuable MOC and CME Credit



PediaLink.

With successful completion of EQIPP courses, you can earn valuable *AMA PRA Category 1 Credit™* and meet the American Board of Pediatrics Maintenance of Certification Performance in Practice requirements – both at the same time. Some EQIPP courses can be completed in as little as 120 days. You can track your lifelong learning and professional development through

### Log In

AAP Login

Don't know your login?

Password

Forgot your password?

LOG IN

### PediaLink News

#### Thrifty Thursdays!

Tell your friends! Thrifty Thursdays are here! Each Thursday, look for a special offer on one of our PediaLink online courses. But hurry, offers expire that same Thursday at 11:59 p.m. CT!

Watch for new Thrifty Thursday deals each week on PediaLink. Thrifty Thursday offers will also be announced via Facebook and Twitter.

### EQIPP News

#### Improving Your Newborn Screening Practices Can Save Lives

Identify and close newborn screening practice gaps with the new AAP EQIPP course *Newborn Screening: Evaluate and Improve Your Practice*, the first

# QI Collaboratives

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- 10–50 primary care or specialty practices, participate in a one- to two-year QI project
- Sponsored by professionals, hospitals, medical organizations, specialty societies
- Approved by ABP or its delegated organizations
  - Portfolio Status
- Specific project chosen
  - Improve care for patients with asthma, CF, immunization rates



# QI Collaboratives

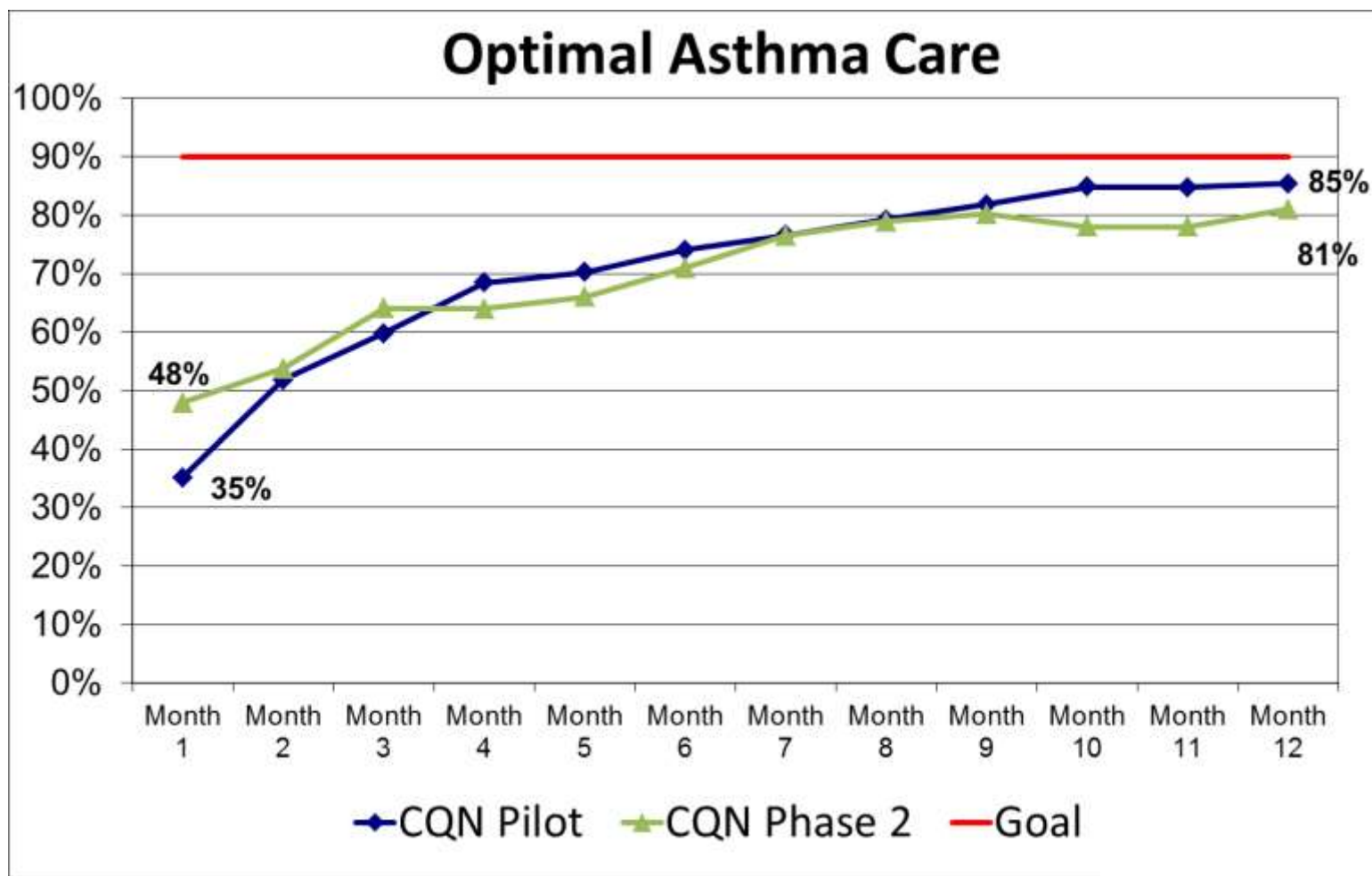
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- Participants meet every three to four months to discuss project specifics, progress, learn successes and failures from each other
- Project leader(s) critically important
- Structure, process, and/or outcomes goals specified, measured, evaluated
- Sample of patients chosen and care evaluated at regular intervals
- Requires multidisciplinary teams to work together





# Build Chapter Capacity to Improve Child Health Care and Outcomes



# Clinical Practice Guidelines

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- Published by wide variety of medical organizations and societies
- AAP process
  - Committee of experts and generalists selected
  - Literature reviewed and evaluated
  - Guideline developed
  - Reviewed and approved by the AAP Board of Directors



# AAP Clinical Practice Guidelines Development Process

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- Determination of accumulated evidence quality
- Determination of balance between benefits and harms
- Designation of recommendation strength
  - Strong recommendation
  - Recommendation
  - Option
  - No recommendation



# Designation of Recommendation Strength

<b>Evidence Quality</b>	<b>Preponderance of Benefit or Harm</b>	<b>Balance of Benefit and Harm</b>
A. Well-designed, randomized controlled trials or diagnostic studies on relevant populations	<b>Strong Recommendation</b>	<b>Option</b>
B. RCTs or diagnostic studies with minor limitations; overwhelmingly consistent evidence from observational studies	<b>Recommendation</b>	
C. Observational studies (case control and cohort design)	<b>Recommendation</b>	
D. Expert opinion, case reports, reasoning from first principles	<b>Option</b>	<b>No Recommendation</b>
X. Exceptional situations where validating studies cannot be performed and there is a clear preponderance of benefit or harm	<b>Strong Recommendation</b> <b>Recommendation</b>	

Figure 1 from “Clarifying Recommendations for Clinical Practice Guidelines”; AAP SCOQIM; “Pediatrics”, 2004; 114:3

# Examples of AAP Clinical Practice Guidelines

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- Type 2 Diabetes Mellitus in Adolescents
- Bronchiolitis
- Acute Otitis Media
- Obstructive Sleep Apnea
- Urinary Tract Infection
- Attention Deficit Hyperactivity Disorder



# AAP Policy Statements

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- Broad recommendations re child health in general
- Often directed towards advocacy activities
- Authored by AAP Committees or Councils after a thorough review of the literature
- Average approximately 30 statements per year
- Reviewed and approved by AAP Board of Directors



# Examples of AAP Policy Statements

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- Recommended immunization schedule
- Contraception for adolescents
- School start times for adolescents
- Children, adolescents, and the media
- Promoting well being of children whose parents are gay or lesbian
- Child health care financing



# AAP Clinical Reports

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- Authored by experts from AAP committees, councils, or sections
- Not rigorously evidence based
- Rely on expert opinion
- Provide guidance for pediatric professionals in many aspects of care
- Average approximately 30 per year
- Reviewed and approved by AAP Board of Directors





# Examples of AAP Clinical Reports

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- Screening for emotional and behavioral problems
- Eradicating polio worldwide
- Testing for drugs of abuse in adolescents
- Surfactant replacement therapy in RDS
- Judicious use of antibiotics in upper respiratory tract infections



# AAP Journals and e-Journals

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- *Pediatrics*
- *Hospital Pediatrics*
- *NeoReviews*
- *Pediatrics in Review*
- *AAP Grand Rounds*



# AAP Publications and e-Publications

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- Neonatal Resuscitation Program (NRP)
- Redbook
- Global Child Health
- Neonatology for Primary Care Pediatricians
- Nutrition
- Preventing Child Obesity
- Approximately 100 in total

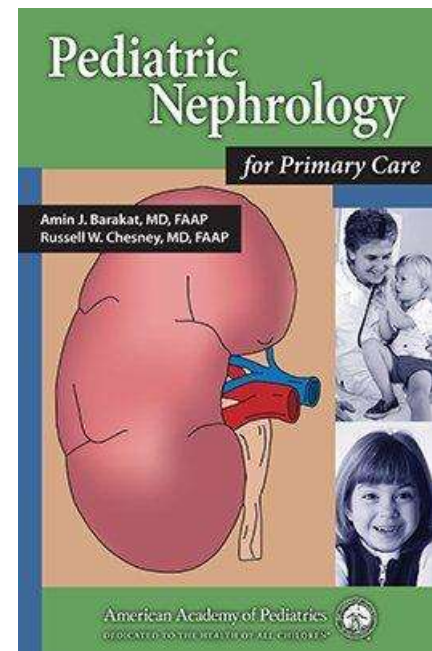
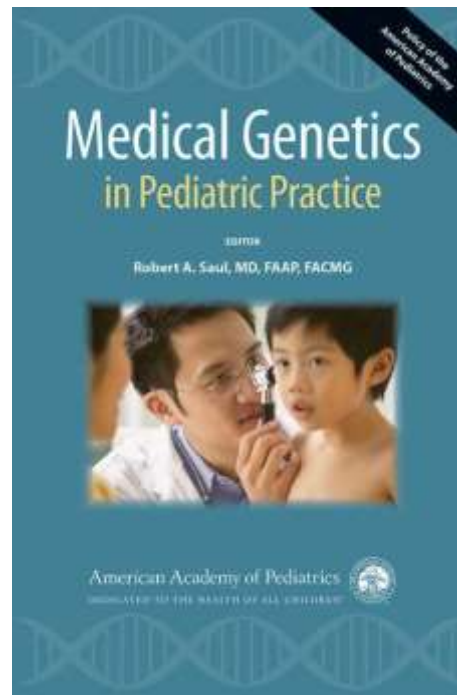
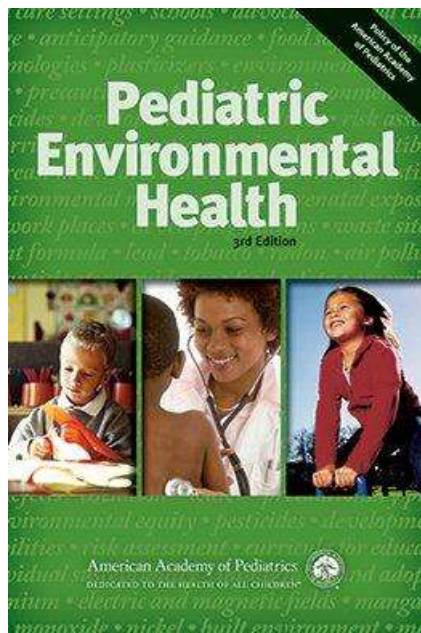
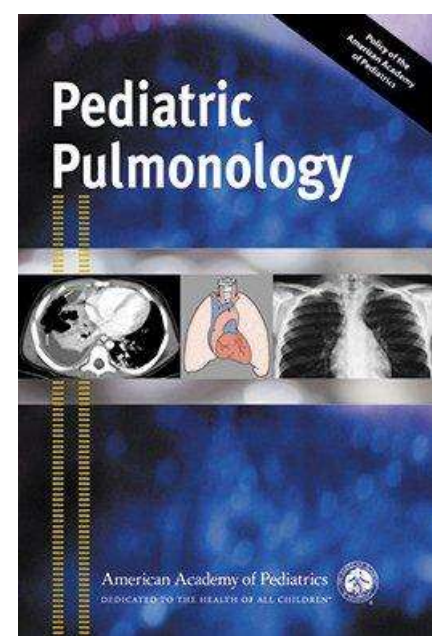
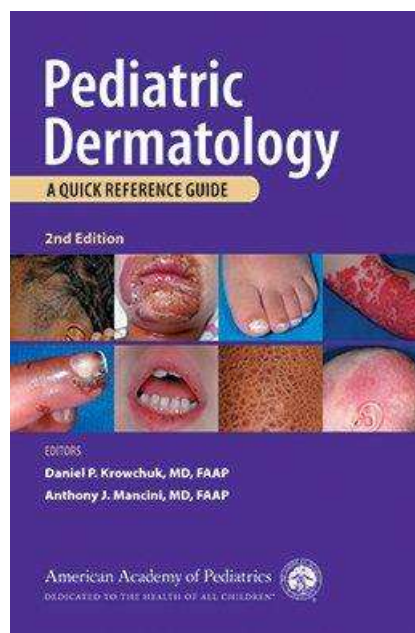
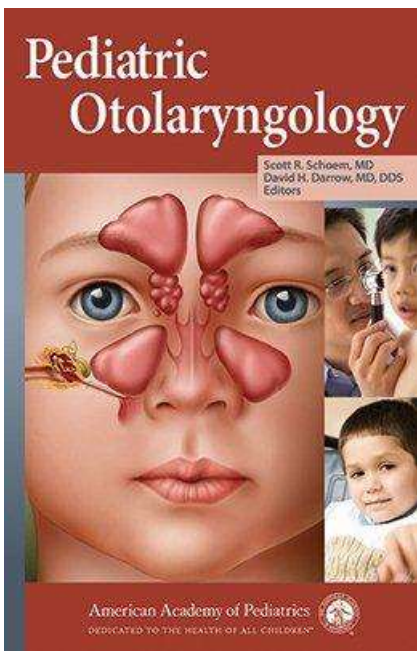


# Conclusion

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- Many types of resources available for the education of pediatric professionals
- Newer modalities, especially electronic, displacing traditional textbooks and other printed materials
- Important to match learning circumstances and styles of the learner with appropriate modality
- Variety of resources enhance opportunity to improve patient care







# Questions

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