
Faculty Scholarship and Creative Works

7-16-2019

Review of Pediatric Care Online

Terri Gotschall

University of Central Florida, terri.gotschall@ucf.edu

 Part of the [Medical Education Commons](#), and the [Pediatrics Commons](#)
Find similar works at: <https://stars.library.ucf.edu/ucfscholar>
University of Central Florida Libraries <http://library.ucf.edu>

This Paper is brought to you for free and open access by STARS. It has been accepted for inclusion in Faculty Scholarship and Creative Works by an authorized administrator of STARS. For more information, please contact STARS@ucf.edu.

Original Citation

Gotschall T. Review of Pediatric Care Online. *Journal of Electronic Resources in Medical Libraries*. 2019.
DOI:[10.1080/15424065.2019.1638867](https://doi.org/10.1080/15424065.2019.1638867)

eBookshelf

Review of Pediatric Care Online

Terri Gotschall

ABSTRACT. Pediatric Care Online provided by the American Academy of Pediatrics is a point-of-care resource aimed at practicing pediatricians and nurses, as well as medical students. The web site is an extensive resource that includes the American Academy of Pediatrics Textbook of Pediatric Care, well child resources, drug lookup, forms, news and more. For practicing physicians the site includes over 250 topics in the Point-of-Care Quick Reference section, along with clinical calculators and algorithms.

KEYWORDS. Pediatric, American Academy of Pediatricians, well child resources, electronic resource review

AUTHOR. Terri Gotschall, MLIS, AHIP (terri.gotschall@ucf.edu) is the Scholarly Communications Librarian, Harriet F. Ginsburg Health Sciences Library, University of Central Florida College of Medicine, 6850 Lake Nona Blvd., Orlando FL 32827.

ACCESSING PEDIATRIC CARE ONLINE

Pediatric Care Online, <<https://pediatriccare.solutions.aap.org/>> is a point-of-care product of the American Academy of Pediatrics (AAP) and is part of the AAP Point-of-Care Solutions web sites.¹ Pediatric Care Online is aimed at pediatricians, pediatric nurses and medical students. A subscription is required to view the full content available on the Internet or through the AAP app, which is available for download for Apple and Android devices. A discount on the annual subscription is provided to AAP members. The site also offers institution and practice wide site licenses and offers a variety of ways to integrate content with existing electronic health record systems.

USABILITY

Though the web site is extensive and busy it is well organized and easy to navigate. The internal search bar in the top right-hand corner of the home page features suggested terms and returns relevant results with options to narrow the results down by result type, content type, and tags (see Figure1). Since the site is comprehensive, new users will find the five-minute Resources Tour video provides an overview of the site's content. The site was reviewed and functioned properly in Chrome, Internet Explorer and Safari browsers.

[PLACE FIGURE 1 HERE]

Legend: FIGURE 1. Screen shot of the Pediatric Care Online website homepage. Image

copyright Pediatric Care Online. Used by permission.

CONTENT

Quick Reference

The Quick Reference tab provides information on over 250 topics and symptoms. There is an A-to-Z list or a search box to help users easily locate the topic or symptom. The topics are broken into five sections: Foundation, Evaluation, Management, Ongoing Care and Resources. Under Foundation the user will find the definition, epidemiology and mechanism; under Evaluation the user will find information on the history, physical exam, differential diagnosis, laboratory evaluation and imaging. In the Management section information on treatment approach, specific treatment, when to refer and when to admit is provided. Follow-up, complications and prognosis information can be found under Ongoing Care. As the information on each page is extensive, the sidebar provides a link to each section so users do not have to scroll down. To navigate back to the top of the list there is a top link. There are minimal links within the text to other related topics, allowing users to quickly assess the information and not get derailed into other topics.

AAP Textbook

For students, the site provides the full text of the American Academy of Pediatrics Textbook of Pediatric Care, second edition, broken down into chapters. Available updates for chapters are indicated at the top of the page, ensuring students have the most up-to-date information. A list of all of the updates is also listed under the AAP Textbook tab. Since the web site does not include any other textbooks or book suggestions, students and educators might want to check out Access Pediatrics, a McGraw-Hill Medical product aimed at students and medical

educators which provides a list of books as well as cases, clerkship material and review questions.

Well Child Resource

The Well Child Resource tab is aimed at practitioners and provides the basic information from AAP's Bright Futures program. A link to a five-minute video provides users with an overview of the resources available in the Well Child Resource section. The primary resource is the full text of the Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents, fourth edition published by AAP in 2017. Since the most up to date information is ideal to support patient care AAP provides recent updates listed in the right-hand column. The updates include links to the clinical reports or policy statements. However, the recent updates listed in the right-hand column are from 2016. To actually view the most recent updates, click on the link, See All Updates. AAP is aware of this technical issue.

In addition to the full text book a Bright Futures pocket guide is provided for easy access to the essential information. The Bright Futures questionnaires and forms provides medical screening, pre-visit questionnaires, along with visit documentation forms, for well visits for patients two days old to 21 years old. The site also provides the full text to Performing Preventive Services: A Bright Futures Handbook. Many of the resources listed in the book were available in Spanish but some indicated they must be purchased. Tables are included within the text, with an option to view a larger format table. In the right-hand column are links to Related Chapters, Related Quick Reference Topics, Related Handouts, Related Multimedia and Related Book Images. The Related Images links to images from the American Academy of Pediatrics Textbook of Pediatric Care, second edition.

The Interactive Periodicity Schedule is also available in PDF format. Users click on the age of the patient to see information on performing the well visit. The Related Handouts for each age are available in English and Spanish, may be downloaded in PDF format, printed, and can even be customized. Each age group includes links to Bright Futures Patient Handouts. These handouts are located on the Pediatric Patient Education website and open in a new tab.

Pediatric Care Online provides just some of the resources of the Bright Futures program. Pediatricians interested in more in-depth information on Bright Futures including implementation models, integrating Bright Futures with an electronic health record, and coding should visit the AAP Bright Futures website at <https://brightfutures.aap.org/Pages/default.aspx>. Here users will also find additional resources such as the Bright Futures: Nutrition and Pocket Guide, family materials and a section on quality improvement.²

Policy

The policy tab on the website provides more than just policies, it includes clinical practice guidelines, technical reports and AAP endorsed statements. Though users are unable to sort by those categories, using the categories as keywords in the search box will bring up the appropriate results. Users are able to sort by topic, title, authoring body and recently released. With approximately 750 topics with links, the web page took longer than the other pages to load. In the Chrome browser on a desktop computer the page took one minute and ten seconds to load, on two different days. A page loading animation keeps spinning until the page fully loads. For the first few seconds the spinning page loading animation lets users know that the page is still loading, however, after that users may think the spinning means the page is never going to load. Since there are many factors that determine how fast a page loads this result will vary depending

on the users' internet setup and maybe more pronounced on a mobile device. A progress bar might be a better page load indicator. Instead of scrolling through the list, users will want to take advantage of the A-Z list or type in a keyword in the search box to look up an item quickly.

Links to the topics open in a new browser tab in the AAP News and Journals Gateway website.

Drug Lookup

Under drug lookup users will find two resources. The first is the pediatric drug lookup page which pulls data from the Lexicomp database published by Wolters Kluwer Clinical Drug Information, Inc. It is the exact same information found in the Access Medicine drugs database. Drugs can be sorted by brand name, generic name or drug class. To find a specific drug users can type in a keyword or drug into the search box or use the A-Z list. A list of the sections is provided in the left-hand column to quickly jump to specific information. The information provided for each drug includes:

- Basics
- Clinical Pharmacology
- Indications & Usage
- Contraindications
- Warnings/Precautions
- Pregnancy & Lactation
- Adverse Reactions
- Interactions
- Dosing
- Administration
- Storage & Compatibility
- Monitoring
- Patient Education
- Additional Information
- Pricing
- References

The drug page is long, so users will find it easier to click on the top icon in the left-hand side bar to get back to the top of the page. Since Pediatric Care Online is a point-of-care

reference website users might expect to find patient drug education handouts. However, the patient education section is intended only as a reference to pediatricians and is not intended to be handed out to patients. Lexicomp however does provide a customizable pediatric patient education section that can be printed and given to patients.³

The information provided in the drug look up section is meant to be a concise reference for practitioners that is related to patient care. It does not include in-depth information such as FDA approval dates, which can also be found in Lexicomp.³

The second resource under drug lookup is the antimicrobial therapy guide instructional tool which allows pediatricians to look up a diagnosis and find information on the likely organisms and treatment. The treatment section provides a link back to the drug page for further information, and this makes for an efficient and convenient work flow for pediatrician offices. Unfortunately, at the time of writing this article, all of the links return an error page result. Users will need to go back to the drug look up page to get to the detailed drug information. Users are able to look up a diagnosis by using a keyword search or the A-Z list. In addition, they can sort by agent or drug class. The drug class information includes dosage, mechanism of action, resistance, pharmacological properties, side effects and use.

According to the Centers for Disease Control and Prevention (CDC) two million people in the US are infected annually with an antibiotic-resistant bacteria.⁴ Antibiotic use and their effectiveness to fight bacterial infection is an important concern for public health.⁴ AAP provides pediatricians with the Judicious Use of Antimicrobials guide. This section is dedicated to helping educate practitioners on the use of antibiotics and the risk of antibiotic resistance.

Tools

In the tools section of the web site users will find algorithms, clinical calculators, and forms and tools. The algorithms are sorted into two tabs, AAP textbook and AAP policy. The AAP textbook algorithms are the figures from the AAP textbook listed in numerical order. There is no search function so users need to know the chapter of the textbook to quickly scroll to an algorithm. Users may find this content more useful in the textbook section where the figure is in context with the chapter text. In both the textbook and algorithms section users have the option to view the original or download a PowerPoint slide. The AAP policy algorithms can be searched for by keyword or by using the A-Z list. Most of the policy algorithms are external links to the AAP News and Journals Gateway web site. These images are also available as a PowerPoint slide and the text is larger and easier to read. Two of the links regarding the Zika virus take users to the CDC website and one link is a downloadable PDF.

There are 16 links to clinical calculators that help pediatricians with tasks such as calculating body mass index during a physical exam with a patient or determining the pneumothorax volume for surgery. Two of the calculators are provided by the Centers for Disease Control and Prevention, one is provided by the National Institutes of Health and one is provided by Cornell University. All of the calculators listed are on freely available websites, however it is advisable to only use calculators from trusted sources.

At the time of writing this article there were four links to calculators on the MedCalc website that were broken. Working with AAP and our institution's information technology team the link issue was resolved in two days. The AAP team was prompt and professional. The technical issue was with network settings at the author's institution. If purchasing the AAP product for an institution librarians will want to consider doing a thorough testing of the AAP site to ensure it functions properly on the institution's network.

The forms and tools section provides, “Hundreds of resources such as forms, questionnaires, checklists, and toolkits to help screen, track, and record clinical information for screening, maintenance, and coordination of care.”¹ Users can look up topics or titles using the A-Z list or the search bar. The links and PDFs are from a variety of resources including AAP and other organizations.

Multimedia

Under the Multimedia tab users will find a visual library, videos on common pediatric medical procedures and implementing mental health priorities in practice, and on demand webinars.

The visual library includes all of the images from the AAP textbook and more than 1,000 additional images. The images are available on PowerPoint slides but are copyright protected. Contact the AAP Permissions Department for usage rights via email or the contact form. The entire process was handled efficiently through email in a timely manner.

For students, Dr. Kelly Kelleher produced videos on common pediatric medical procedures. The videos vary in length but include the indications and guidelines for the procedure, contradictions, equipment list, procedure, demonstration and post-procedure. An alternative to AAP’s video library is Johns Hopkins All Children’s Hospital website, which provides a slightly more extensive selection in their surgical procedures video library.

The site includes four additional links at the top of the page to other AAP resources, Red Book Online, Pediatric Patient Education, AAP Pediatric Coding Newsletter, and AAP Toolkits. Depending on the type of subscription these additional resources may be included.

CONCLUSION

While conducting the review there were a couple of technical issues with the website. Using the contact form AAP was informed of the issues. They responded to the inquiry the same day, in a professional and friendly manner. The website is an extensive resource for pediatricians, pediatric nurses and medical students that includes the most current information for patient care. Though some of the content is not unique to the Pediatric Care Online website, for example the drug look up information is from Lexicomp and the Well Child Resources are from the Bright Futures Program website, the site is well designed and curated to help health care providers in their day-to-day interactions with patients.

REFERENCES

1. American Academy of Pediatrics. "Pediatric Care Online." Available: <<https://pediatriccare.solutions.aap.org/Pediatric-Care.aspx>>. Accessed: September 25 - November 7, 2018.
2. American Academy of Pediatrics. "Bright Futures." Available: <<https://brightfutures.aap.org/Pages/default.aspx>>. Accessed: October 31, 2018
3. Lexicomp. Available: <<http://online.lexi.com.ezproxy.med.ucf.edu/lco/action/index/type/drug>>. Accessed: October 30, 2018.
4. Centers for Disease Control and Prevention. About Antimicrobial Resistance. Available: <<https://www.cdc.gov/drugresistance/about.html>>. Accessed: October 31, 2018.