



Pediatrics[®] Board Review

15th Edition
Your EFFICIENCY BLUEPRINT to
Passing The Pediatric Boards

2025
EDITION



**YOUR SUCCESS BLUEPRINT
TO PASSING THE PEDIATRIC BOARDS**

www.pediatricsboardreview.com

100% Money Back Pass Guarantee • Powerful Mnemonics
Massive Online Community • Board-Focused Content
Efficient Learning So You Can Enjoy Life And Have More Fun!

PEDIATRICS BOARD REVIEW®

***Your Certification SYSTEM for
Passing the Pediatric Boards***

- ***100% Money Back Pass Guarantee •***
- ***MASSIVE Online Community •***
- ***Board-Focused, Manageable Content •***
- ***Powerful Mnemonics •***



***EFFICIENT LEARNING So You Can
Enjoy Life & Have More Fun!***

Written by Ashish Goyal, MD

www.PediatricsBoardReview.com

COPYRIGHT INFORMATION

© 2025 Pediatrics Board Review Inc.

All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, digital storage or otherwise, without prior written permission of Pediatrics Board Review Inc.

Any reproduction, presentation, distribution, transmission, or commercial use of the concepts, strategies, methods, materials, and all other trademarks, copyrights, and other intellectual property owned by Pediatrics Board Review Inc. in any media, now known or hereafter invented, is prohibited without the express written permission of Pediatrics Board Review Inc. It is prohibited to use any device, now existing or hereafter invented, to make an audio and/or visual recording, transmission, or broadcast of any online, offline, audio, or video materials of Pediatrics Board Review Inc.

The legal entity "Pediatrics Board Review Inc." may be referred to as "Pediatrics Board Review" or "PBR."

Reproduction of Pediatrics Board Review Inc. material without written permission is punishable by law.

ISBN 978-1-300-66615-8

INTRODUCTION TO THE “EASY” PBR EXPERIENCE! (Read This!!!)



Hi there! I'm Ashish Goyal, the author and creator of Pediatrics Board Review (PBR). I've had the privilege of guiding thousands of pediatricians through their board exams. As a double-boarded physician living on a remote landmass, I've seen my work impact pediatricians nationwide.

More than just study materials, PBR is a system designed to **limit overwhelm, give clear direction, and maximize efficiency**. You'll be given the **essential information** needed to ace the boards, without all of fluff. The results speak for themselves and demonstrate that PBR is ideal for **first-timer test-takers and those who are at high risk of failing**.

The key to our success has been the **PBR Certification System**. The system is built around **clear and concise information and guidance**. The concise information is available in both **hardcopy and digital formats**, and the guidance tells you exactly how to use the resources, and when. All you have to do is follow the checklist.

This **multimodal and formulaic approach** has not only been shown to **enhance learning and retention**, but it also places a **strong emphasis on test-taking strategies**—a focus I've been pioneering for over a decade to achieve seemingly impossible results, such as helping **one pediatrician who passed on his 10th attempt and another pediatrician finally find success on her 11th attempt**.

PBR is the ONLY pediatric review to offer this approach. It was created for first-time test-takers to help them pass easily, but has made miracles happen for those who have previously failed.

Our knowledge base resources include a Core Study Guide, a Q&A book, online editions of our books, an audio course, a video course, and a Virtual Atlas of Pediatric Pictures. Information is **presented in the same order** so your efforts are maximized for efficiency.

Our “success accelerator” resources include live ASK THE EXPERT webinars, ASK THE EXPERT question portals for every chapter in the Core Study Guide, Personalized Study Schedules created for you by Team PBR, Blueprints for Success based on your risk profile, an Online Test-Taking Strategies Course, a Live Test-Taking Strategies & Deep Study Course, a private online community, and much more.

PBR is tailored for a wide range of needs – from **residents** needing to increase ITE scores to **first-time ABP exam** takers to, to **repeat test-takers**, to pediatricians preparing for the **recertification exams** and those in need of **CME/MOC credits**.

More than just study materials, PBR is an **integrated system** offering **content, test-taking skills, personal guidance, and passionate community support** to help you **cement knowledge and surpass your expectations**. Our alumni's success demonstrates that **our system is all you need** to pass your exams.

PBR's first-time pass rate for the ABP initial certification exam is estimated at **98%**, which is significantly higher than the national average of **81-84%**.

In short, Team PBR and I aim to help you *get* board certified and *stay* board certified. We're passionate about what we do, and we're always here to help. Please reach out if you need anything along your journey!

All the best,

Ashish & Team PBR

WHAT CHALLENGES IS PBR SYSTEM SOLVING FOR YOU?

EFFICIENCY THROUGH SYSTEMS AND INNOVATION

Most board review books and courses simply hand you a book and say, “good luck.” That’s how I studied for the USMLE exams, the pediatric board exam (twice) and the internal medicine board exam. **I was completely isolated!** After purchasing thousands of dollars of board materials, I was left to go through the books and video courses with no real guidance, no feedback from my peers, and absolutely no advice from the authors (besides a one-page preface).

NO MORE ISOLATION

Because of how excruciatingly painful that was, **I’ve created a community of pediatricians for you to study with and a blueprint** of what to study, how to study it and how to do so **EFFICIENTLY!**

GUIDED TO SUCCEED

ALL of PBR’s resources are created with your *time* in mind. I’ve aimed to solve these questions over the years:

- * Will the resource be **easy to use**?
- * Will it provide **more value** than existing resources AND provide that value in a **more streamlined** fashion?
- * Can we make the resource **easily accessible via smartphones and tablets**?
- * Will the resource **reinforce the core concepts** laid out in the PBR and in the Q&A book **instead of overwhelming** you with new concepts?
- * Can we make the resource **portable** (e.g., audio or video?) so that it can be used at times when a physician, or a mom, or a dad, or a gym-enthusiast, would not normally be able to study?
- * Can we teach you how to **become a better studier** and maximize your time in front of the books **through Deep Study**?
- * Can we assist by creating Personalized Study Schedules for you that **map out your study time**?
- * Can we help you **become a better test-taker** through courses on test-taking strategy?
- * Can we create **an easy-to-follow formula for success**?

PBR is a system unlike anything you have ever experience before in your medical career. The Core Study Guide is written in easy-to-understand language and provides you with hundreds of time-saving memory aids. The online systems allow for one-click access to hundreds of high-yield images across the web. The Q&A book has some of the highest yield and most board-relevant questions available.

You also have a ready-made study group of hundreds of pediatricians to help you EFFICIENTLY blow past trouble spots in your studying. Plus, your questions, requests for clarification, and submissions of potential errors are all used to create a Corrections & Clarifications Guide that is released annually to the entire PBR community right before the initial certification exam to give you a boost in your knowledge base and understanding of the materials.

All of these efficiency-focused systems **SAVE YOU OVER 100 HOURS OF TIME** and give you **flexibility in your life to enjoy your family, your friends, or to reinvest that time** into repetition of the PBR material.

A critical component of ANY individualized board review plan is to go through the study material MULTIPLE times. **PBR is concise, makes the learning manageable,** and will allow you to feel confident on your test day because of well-prepared you are for your exam.

WHAT IS THE BEST BUNDLE FOR ME?

→ PGY1 – PGY2 (IN-TRAINING EXAM PREPARATION)

Your main goal should be exposure to board-relevant content. I recommend that you either get the **Ultimate Bundle Pack + MP3 Bundle** or the **ALL ACCESS PASS**. If you want to sign up for multiple years to ensure access through the date of your exam, email us to get a big discount. For group discounts, visit www.pbrlinks.com/GROUPS.

→ INITIAL CERTIFICATION EXAM PREPARATION (PGY3 & HIGHER)

In general, the **NO BRAINER** and the **VIP BUNDLE** are the best bundles. The No Brainer is the one that most low-risk initial certification exam takers enroll into. It gives you everything you need to develop your fund of knowledge while also providing our introductory Online Test-Taking Strategies Course to help you learn test-taking strategies. You also get up to three 90-Day Personalized Study Schedules created for you by Team PBR.

→ WHAT IS YOUR RISK PROFILE? IF YOU DON'T KNOW... YOU COULD BE IN TROUBLE.

Your plan of attack **MUST** be based on how likely you are to pass or fail. What is your risk profile? If you don't know, please visit www.pbrlinks.com/RISK-CALCULATOR immediately and find out.

For **LOW-RISK** test-takers, the **ALL ACCESS PASS** is also a very good option. It focuses on a multimodal learning experience to develop your fund of knowledge and gives you access to our ASK THE EXPERT live webinars and online question portals. This bundle does not focus on test-taking strategy, and it only offers one 90-Day Personalized Schedule. The assumption is that you tend to do very well on exams, you've never failed any medical board exam, and you are very good with time management.

For **MODERATE-RISK** test-takers, the **NO BRAINER** or the **VIP BUNDLE** would be the bundles to choose from. The No Brainer includes the All Access Pass, the Online Test-Taking Strategies Course, and it also offers three Personalized Study Schedules created by Team PBR. **However**, this exam is not like any other medical board exam you have taken, and implementing the teachings and strategies from the VIP Bundle (discussed below) will ensure that you pass! So, it's my belief that the "insurance" is worth it.

For **HIGH-RISK** test-takers, the **VIP BUNDLE** is the right choice. It includes the No Brainer and a seat in one of our Live Test-Taking Strategies & Deep Study Courses. These courses help you with advanced test-taking strategies and allows you to break through the plateau that you will reach if you only use our Online Test-Taking Strategies Course. The Deep Study lectures are often called "life changing" because they help you become a MUCH better manager of your time, your energy, your life's priorities, and your focus. The VIP BUNDLE also includes Group Deep Dive calls to help you understand PBR's best practices and to help you break through barriers during your board prep.

→ MOCA-PEDS ASSESSMENT QUESTIONS

You **do not** need the PBR Core Study Guide and Q&A Book. They are good supportive resources, but we have a very inexpensive **MOCA-PBR Study Guide & Test Companion** that is specifically created to help you pass your quarterly questions. Every year, we create 1-page topic summaries to cover ALL of the ABP Learning Objectives and Featured Readings for General Pediatrics in concise, 3-page summaries. If we do our job right, you will pass without needing to study anything else!

→ MOC EXAM (4-HOUR, PROCTORED RECERTIFICATION EXAM)

This is a smaller, easier version of the initial certification exam. For most board-certified pediatricians, the **Ultimate Bundle Pack + MP3 Bundle** or the **ALL ACCESS PASS** are sufficient. If you are someone who has struggled with standardized exams in the past, then you should enroll into the **NO BRAINER** bundle.

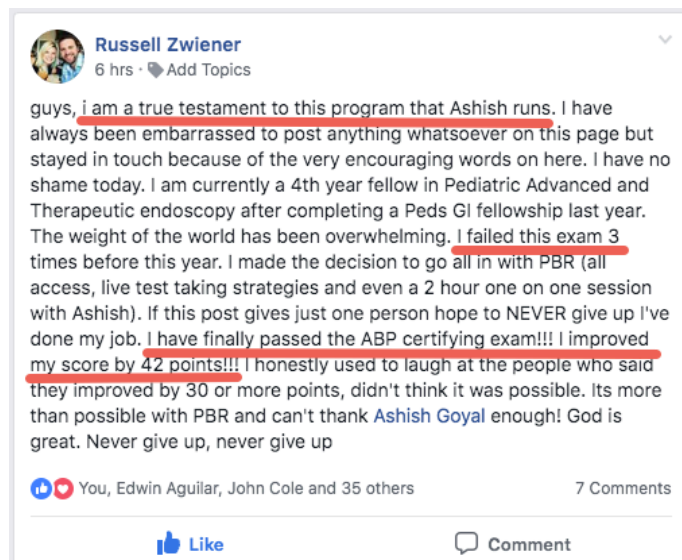
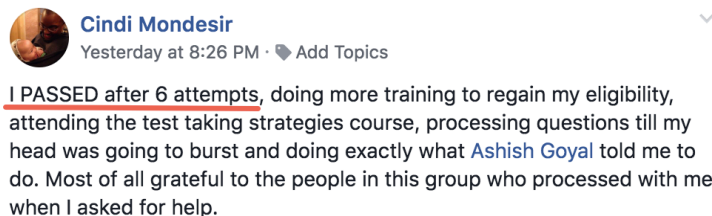
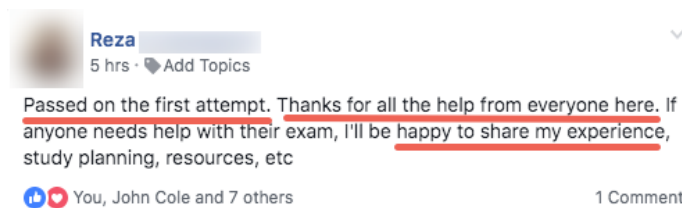
Still not sure? [Contact us](#) and we'll guide you further!

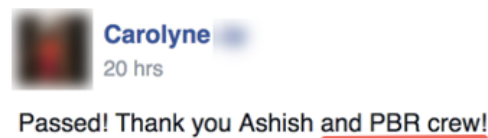
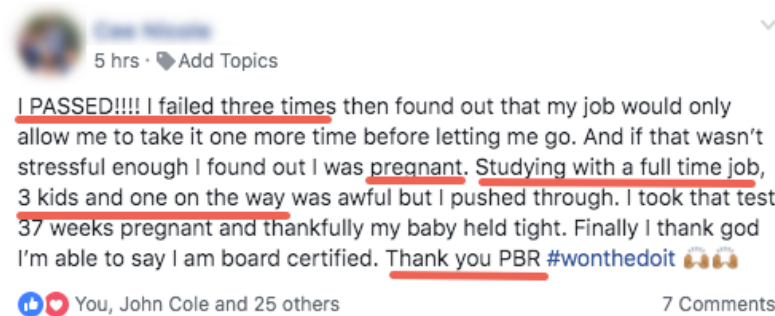
WHAT ARE THE 7+ RESOURCES THAT YOU HAVE ACCESS TO?

The **ALL ACCESS PASS** and the **NO BRAINER** are by far the most popular memberships for anyone taking the initial certification board exam. If you have one of these, **please make sure you take advantage of all of these resources!** If you are at moderate or high risk of failing, please also read the previous page because the **VIP Bundle** might be the right one for you!

1. **PBR'S COMMUNITY!** This includes Ashish Goyal, "Team PBR," PBR's summertime webinar content experts, and the **MEMBERS-ONLY DISCORD GROUP**. **JOIN THE INVITE-ONLY DISCORD GROUP NOW!** Do not study in isolation! You have a community of pediatricians to support you. **The COMMUNITY aspect is one of the most valuable components of the PBR system.** Studying for a board exam can be GRUELING, but having others to lean on for clarification, advice or just some moral support can make all the difference in your studying experience. Just have a look!

PRIOR PRIVATE COMMUNITY COMMENTS FROM BEFORE WE RECENTLY SWITCHED TO DISCORD





Visit the following link to join our community: www.pbrlinks.com/community

2. **HARDCOPY PBR CORE STUDY GUIDE:** YOU WILL LOVE YOUR “PBR!” It is at the center of your success blueprint. Carry it everywhere, highlight it, draw pictures, create mnemonics and add notes to help you cement the 2500+ MUST-KNOW topics in this book. After your exam, I promise you that you will MISS IT!
3. **HARDCOPY PBR Q&A BOOK:** KNOW this book! It is NOT a random collection of questions. The material should be considered CORE material for you to study over and over again. Carry it around and mark it up! Make sure you review this book as many times as you review the Core Study Guide.
4. **ONLINE VERSIONS OF THE PBR CORE STUDY GUIDE:** All 2500+ topics are available in a scrolling PDF style format and in a topic-by-topic, **searchable** format. Keep this open and use the **one-click**

image links while you study or after each two-hour block of studying. It's **iPhone/smartphone compatible, iPad/tablet compatible and desktop compatible**.

5. **ONLINE VERSION OF THE PBR Q&A BOOK:** Have a few minutes while at work? Open the scrolling PDF version of the Q&A book and go through one or two questions.
6. **PBR WEBSITE:** The website has a TREMENDOUS amount of valuable content. Each article was written to help address a need expressed by pediatricians. Read as many of the articles as you can! There is also a TOOLS section where you can find links to [discounted pediatric board review question banks](#).
7. **PBR'S TEST-TAKING STRATEGIES:** Physicians are not taught HOW to take tests. **GOOD pediatricians with sound clinical reasoning WRONGLY believe that** a board exam is a measure of one's knowledge base, and thus a measure of one's abilities as a clinician. That is completely false.

Exams require mastery of the English language, mastery of pacing, mastery of your emotional state during an exam, and an understanding of the **deceptive tactics** employed by question-writers to create **seemingly possible yet blatantly WRONG answer choices**.

PBR's [ONLINE TEST-TAKING STRATEGIES & COACHING COURSE](#) (included in the No Brainer bundle) offers **insights into this "board game."** You will stop viewing question as miniature patients and start viewing them as miniature riddles. Riddles with concrete rules and strategies to help you reach the correct answer quickly (**even when you often lack the clinical knowledge!**). Understanding the rules of the game will completely change your outlook on how to prepare for the exam and how to use board review questions for PRACTICE instead of content. **I HIGHLY recommend the PBR Test-Taking Strategies & Coaching Course for anyone who is taking the boards, but especially for those who are "at risk."** This includes you if:

- You have failed this exam at least once
- You typically score below the national average on your board exam scores
- You have failed ANY USMLE Step exam
- You were classified as "at risk" during residency based on your in-training exam scores
- You are more than 1 year out of residency

The course helps you understand the [techniques and skills](#) associated with answering board-style questions correctly. **We've helped MANY pediatricians finally pass the boards after failing multiple times, including ONE, TWO, THREE, FOUR, FIVE, SIX, SEVEN, NINE, and TEN times!** So, helping you should be easy.

To get just a taste of how you can increase your board scores immediately, and to learn a few of the rules to the "board game," click here and read a PBR article I wrote titled, "**3 Strategies to Skyrocket Your Score!**" - www.pediatricsboardreview.com/techniques

Also, visit www.pediatricsboardreview.com/strategy and watch a FREE test-taking strategies session right now.

TEST-TAKING STRATEGY COURSE MEMBER TESTIMONIALS

(FROM MEMBERS OF OUR ONLINE COURSE AND/OR OUR LIVE COURSE)

*Ashish, I did it. I can't thank you enough for creating an amazing system to keep me on track with my studying. And the \$2000 for the **live weekend** test taking course was well worth it. Doing the technique during the test kept me focused and allowed me to eliminate wrong answers. Thank you for all the great advice, sticking to the material, memorize, memorize, memorize then practice practice practice. **After 4 failed attempts**, it was exhilarating to finally read the words, "we are PLEASED to announce you PASSED!" I will definitely recommend your program. God Bless*

- Dr. Yessenia Castro-Caballero, Board Certified Pediatrician

I believe I broke the record taking this test 10 times!!!! I finally passed on the 10th... I appreciate sincerely all your help, I have cried cried all day today, after too many years and thousands of dollars spent, finally this is in the past now. Thank you so much.

- Dr. Pablo Chagoya

*I PASSED finally!!!!!!!!!!!!!! So relieved and it's all because of you!! I would not have done it without the **live courses**... Thank you Ashish!!! You are the best!!*

Frannie

Your devoted PBR fan :)

- Dr. Frances Liu, Board-Certified Pediatrician who **increased her score by 18 points after failing 3 times**

*Definitely helped to get a better understanding of the "board game" that Ashish mentions. **I'm sure I've fallen prey to those traps in the past.***

Also, knowing the types of questions and the algorithm to figuring out how to spend my time answering the questions-- never would have thought about the Hybrid approach to just reading the last line of the vignette for "this/these" questions.

Really didn't know that I shouldn't be spending time reading through the whole vignette... or doing the "top to bottom" approach!

Overall it was great and I really appreciate you taking the time and effort putting this together and making sure that we can succeed our first time around.

*Helped immensely with reading/understanding the "English" of the questions - **I actually would've gotten one example question wrong in the past had I not used the AaCNI mnemonic***

I had very little time to prepare for the boards... The core study guide helped me focus on topics that were high yield on the exam. In addition, the strategies taught by Ashish were very helpful and is what I believe helped me PASS. I would highly recommend the PBR for anyone needed to review in a short period of time. It is worth every penny!

- Dr. Darlene Melk, Board Certified Pediatrician

Ashish, this is Russ Zwiener... **The weight of the world has been lifted! I have PASSED the 2018 ABP certifying exam. I improved my score by 42 points and passed by 35. Tears of joy are wonderful.** No Thank you could ever be sufficient for all the support and guidance over the past couple of years. Thank you again and please let me know if I could ever help with PBR in any way!!

Board Certified Pediatrician
VIP Bundle Member
"Deep Dive" call with Ashish
42-Point Increase
3 Prior failed attempts

The first time, I didn't finish... I landed a 166. The next year I joined PBR and went over the book 3 times. I should've taken off two weeks prior, but only managed one. I earned a 179. Heart breaking. But how could I give up when I only needed one point. So this year **I went over the book at least 5 more times. I did the ATL live test-taking strategies training and learned how to process through choosing the most correct answers.** I arranged to have at least 3 hrs of deep work everyday and did a chapter a day plus prep questions from that section. Two mos before the exam I did med study practice blocks of 84 questions timed to practice randomized subjects. **This time I got a 208...** The tears of relief...really I can't describe it as intensely as we felt it. So much time, work, money, defeat I had felt...finally redeemed. **The sacrifice my family made, finally we could leave purgatory and move on! ... Thank you PBR.**

Dr. Samantha
Board Certified Pediatrician
All Access Pass Member
Live Test-Taking Strategies & Deep Study Course Member
29-Point increase
2 Prior failed attempts

Ashish and Team. Today is the best day ever. I had to do many things to get here. **You gave me the tools, and my confidence back. The test taking strategies changed my approach to questions. It was clear, consistent and concise. I approached each question the same way. It took me 10 years to figure out how to take this test.** The personalized schedule kept me focused and on task. You helped me overcome my biggest challenge in my career. I passed with a 192. I am finally board certified after 10 years and I now have more options available to me. I can keep my family together. **I have conquered my biggest nemesis and it feels great!** You are awesome.

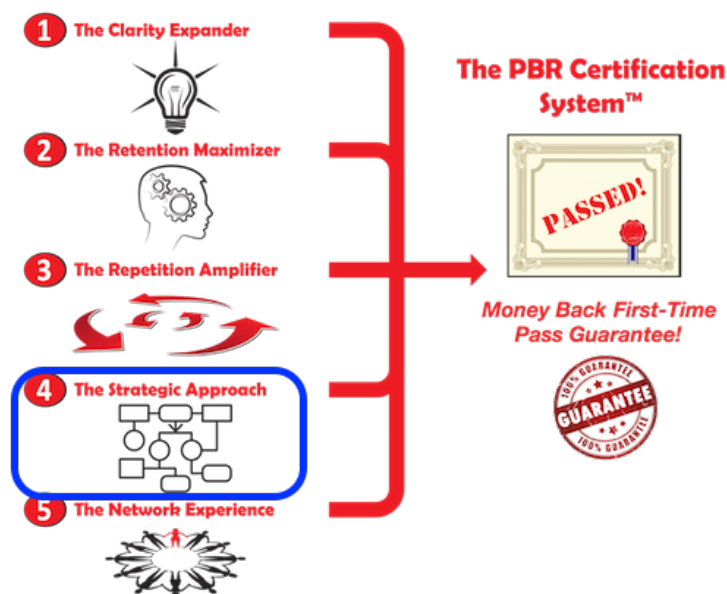
Dr. Cynthia Mondesir
Board Certified Pediatrician
All Access Pass Member
Live Test-Taking Strategies & Deep Study Course Member
"Deep Dive" call with Ashish
26-Point Increase
6 Prior attempts

** All testimonials are by real people, and may not reflect the typical purchaser's experience, and are not intended to represent or guarantee that anyone will achieve the same or similar results.*

The time that you spend learning how to use test-taking strategies to increase your scores will be the HIGHEST yield time of your board prep. The overall time investment is as little as 8-16 hours, but the skills you learn will be used on EVERY single question that you come across. Is there a single chapter in this book that can guarantee you the same benefit?

THE ANSWER IS “NO!”

- ① **Signup for Your FREE Test-Taking Strategy Session Now**
www.pediatricsboardreview.com/strategy



- ② **Use the ONLINE Test-Taking Strategies Course**

Go through the online course, do independent work, increase your skill, and reach a plateau.

www.pediatricsboardreview.com/strategy

- ③ **Attend the LIVE Test-Taking Strategies & Deep Study Course**

Come to the LIVE course, get mentored, maximize your test-taking strategy skills, BREAK THROUGH your plateau, and learn Deep Study techniques to maximize your “book time” too.

www.pediatricsboardreview.com/live-tts

DID YOU KNOW THAT I FAILED THE BOARDS?



I took the ABP initial certification exam the year that I graduated from residency. I **used multiple study guides to prepare**. Because there was so much information in front of me (print and video), I **only got through everything once**.

I felt okay going into the exam. I thought, “I’ve been through the MCAT, three USMLE exams and an Internal Medicine board exam. I did fine in residency, and I studied really hard for two months. I’m *sure* I’ll be fine.”

Coming out of that exam room on test-day, I felt nauseous. I realized that I might have just failed my first medical board exam, ever! **I was upset with myself for getting so scattered with all of those different study materials**, but I was also annoyed because **I still couldn’t think of a single resource that I could use as a primary study guide the next time around**.

I went home and made notes about **how I would study differently** if I had failed. What topics would I concentrate on? What topics just don’t seem to be “testable”? What information is a waste of time to study?

When the results finally came, I failed. I estimate that I **failed by seven to nine questions. I made key strategy changes** based on my previous experience. I studied for hundreds of hours while still working a full-time job. I **focused on efficiency, solid mnemonics for memorization and I stopped trying to learn “all of pediatrics.”**

You never feel “great” coming out of a board exam, but the second time around I felt like I had a fighting chance. **My score increased by 160 points on the old passing scale, and I estimated a pass by about 37–39 questions!** Pretty soon, I even received another kind of letter from the ABP. **The American Board of Pediatrics asked ME to write questions for the THEM!!!**



I was really just happy to pass. Failing **the first time had cost me extra time, money, and energy** that I would have preferred to spend with my loved ones.

Prior to creating the Pediatrics Board Review experience, I was ashamed that I had failed. Now, **I’ve taken a horrible experience, and I’ve created something that is helping residents and pediatrician across the country**. I’ve also realized that **failing the boards did not mean that I was a bad pediatrician**. Nor did passing by such a wide margin mean that I am a great pediatrician.

I’M JUST AN AVERAGE PERSON WHO DID EXTREMELY WELL ON THE EXAM... AND THEN TOOK MY NOTES AND SYSTEMS AND TURNED THEM INTO THE PBR. No matter who you are, I know that you can pass your exam too. That’s why PBR comes with a **100% Money-Back First-Time Pass Guarantee**.

It’s the easiest, most EFFICIENT, and only integrated board review *SYSTEM* to help you PASS the pediatric boards. So, rest assured that by joining the PBR family, you’re already on the right track to success.



JUST FOLLOW THE EFFICIENCY BLUEPRINT!

THE PBR EFFICIENCY BLUEPRINT

The pediatric initial certification exam has **one of the highest failure rates of any medical board exam**. I URGE you to follow just a few of my simple but CRITICAL recommendations as you go through your board review experience. **ESPECIALLY #1!**

1. **PLEASE STICK TO ONE PRIMARY STUDY GUIDE - the PBR!** Spreading yourself too thin by reviewing multiple resources is the **BIGGEST MISTAKE** you can make. **I've gone through thousands of emails, interviews and surveys.** It's clear that this one, single recommendation that will increase your chances of board success more than anything else I can say.

This is a **key similarity amongst pediatricians who failed** the boards but then went on to pass using the PBR system. So please **do not spend your time going through other books, video courses or expensive live board review courses. Go through the PBR books** (Core Study Guide + Q&A Book) **and the PBR companion products** (videos, MP3s, digital picture atlas, webinars) exclusively and give yourself a seamless, multimodal approach.

2. Approach your PBR material by first simply SEEING all of the PBR content in the Core Study Guide and Q&A Book. Spend about 60–90 seconds per page to simply SEE everything that you will need to learn so that you have an idea about the type of knowledge you'll need to acquire in order to pass this exam. **This should take you a full day. DO NOT spend time writing notes of any kind during this process.** Do NOT treat the Q&A Book like other questions. This is CORE content.

During your first official read, leave no stone unturned. Crosscheck anything that confuses you. Create mnemonics, notes and drawings in the margins so that you understand EVERYTHING. Make sure that you will NEVER have to go outside of the PBR for additional knowledge or clarifications again. If you get stuck on a concept, reach **out to your peers in the PBR Community** (www.pbrlinks.com/community)! If you think you've found an error, notify us through our special error submission link (www.pediatricsboardreview.com/error). **This will help you maintain your PACE and promote EFFICIENCY!** When crosschecking, ONLY go outside of PBR briefly for possible errors or confusion. That's it! **Do NOT go down the black hole of GOOGLE!** If after 5 minutes you're still stuck, submit your question through the ASK THE EXPERT portal for that chapter and move on!

Your second time should be MUCH faster if you are using my highlighter system. Do NOT let your curiosity of non-PBR topics distract you. As you break up your studying time with questions, you WILL want to look up new topics and crosscheck facts between the PBR and PREP®. DO NOT DO IT! It's a guaranteed waste of precious time that could be spent on the HIGHEST YIELD resources that you will have at your disposal to pass the board exam: PBR's.

Your third, fourth and fifth times through the PBR content should strictly focus on adding more information into your long-term memory through **repetition**, through the use of mnemonics, and through the use of **MULTIMODAL studying**. Use audio, video, webinars, study buddy sessions, etc. Just use *something* to mix things up because it's been **proven to increase learning!** Use the audio course everywhere, and use the video course in a later "recapture" round (more on this in the members' area).

Again, you must resist that urge to look up extraneous information and you must **focus on QUALITY study time**. Ensure that your reading is focused on LEARNING and REMEMBERING the concepts. Do not simply read for the sake of reading, and do not study when you're exhausted or irritable.

Your primary goal is to pass the exam. As long as you KNOW everything from the Core Study Guide + Q&A Book, **you will have enough information in your brain to easily pass as long as you also have good test-taking strategy.** However, if you try to learn "all of pediatrics" you will get

overwhelmed and probably **fail the exam**. Map out the right number of hours based on your risk profile (more on this coming up) and hold yourself accountable.

3. **Use PBR's Q&A book as additional, new CORE material. Also use it to get familiar with very high-yield topics and questions.** The format is short and to the point without too much extra information. The questions will help you understand what types of key findings you need to identify on your practice questions and on your exam. Please remember that **the Q&A book is considered CORE CONTENT**. You need to KNOW IT COLD! Do NOT treat the PBR questions like PREP® questions.
4. **Go through at least 1000 practice questions.** Don't go through them all at once (much more on this in the schedule outlines below). As you go through the questions, **work on your timing**. If you can average about 1 minute and 15 seconds per question, you will be fine for the boards. Do not try to understand why every single incorrect answer is wrong. **Just focus on the correct answer, and if your answer is wrong, figure out WHY it's wrong.** Skip explanations about all of the other answer choices.

When evaluating WHY you answered a question wrong, figure out if it was because of a **CONTENT problem** or if it was due to a **TECHNIQUE problem**. Even if you “think” you're sure, trust me, it could still be a **TECHNIQUE problem**, and you must get help – www.pediatricsboardreview.com/strategies.

Did you answer a question incorrectly because of a CONTENT issue? Meaning, you had a knowledge deficiency? If so, was the content in the PBR? If the answer is “yes” then you **MUST** know that information. If the answer is “no” then do NOT worry about it! Do NOT start looking at Nelson's, Harriet Lane, Google, UpToDate, etc. **It's a black hole that you must avoid** because it will only overwhelm you, and it will keep you from the two main goals of **knowing the PBR CONTENT COLD** and **PRACTICING tons of questions** to master your test-taking technique!

Remember, the AAP writes PREP®, the ABP writes the boards. Going through **three to four years of PREP®** is great, but keep in mind that the resource is great for **CME**. Any single year of PREP® questions is **not** designed to be a stand-alone study guide for the ABP exam. The questions are **EXCELLENT** for practicing and mastering your test-taking technique, but your highest-yield information will come from the PBR study guides and systems. **If you need MORE practice questions, you can get discounted practice questions by visiting www.pediatricsboardreview.com/tools.**

Did you answer a question incorrectly because of a TECHNIQUE issue? Did you add extra information and assumptions to the question or the answers that led you to the wrong answer? Did you spend too much time on a question even though it was clear that you didn't have the knowledge to answer it? **Did the question-writer trick you with a distractor?** Did the question writer trick you with an English question instead of a clinical question? Did you get anxious or nervous under a timed mock exam? **Did you often get stuck between seemingly similar answer choices?** Are you still confused about why the answer you chose is wrong?

Make notes about the kinds of issues you're having and try to figure out solution and strategies to avoid similar pitfalls in the future. If you notice that **TECHNIQUES-BASED PROBLEMS** creeping in over and over again, or you don't know what I mean by “technique,” you need to **seek out help through the PBR Test-Taking Strategies & Coaching course at www.pediatricsboardreview.com/strategies.**

5. **EXTREMELY Important Test Day Tips:** PLAN to be successful. You will find two links below. The first breaks down the number of questions, time per block, etc. for your exam. The second is **a list of excellent PBR articles**.

www.pediatricsboardreview.com/examday

www.pediatricsboardreview.com/category/test-day-tips

STUDY SCHEDULE: Resident? First-Time? Failed? MOC? MOCA? WE'VE GOT YOU TAKEN CARE OF!

We have a TON of guidance on how you can schedule your study time. Since PBR is of benefit to pediatricians at all different levels, I've tailored my recommendations accordingly below.

EVERYONE MUST recognize the **difference between clinical practice and what the ABP would want you to do on the exam**. The exam is filled with answer choices that sound like they would be great options in practice, but unless you know what "the book" says, you will have to simply roll the dice.

For anyone taking the **Initial Certification exam**, recognize that the pass rates are DRAMATICALLY LOWER than the USMLE Step Exams. **In 2023, the first-time pass rate for US and Canadian medical students taking the USMLE Step 1 was approximately 92% while the pass rate for the ABP initial certification exam was only 82%! Our members' pass rate for first-time test takers of the ABP exams is estimated to be > 98%! So, stay focused on PBR!**

ARE YOU A RESIDENT? Simply familiarizing yourself with everything in the PBR content before you graduate will dramatically increase your chances of passing the boards.

While on subspecialty rotations, READ and KNOW the associated PBR chapter. While on general inpatient or outpatient rotations, focus on the rest of the book, and take just 15 minutes per day to read the QUICK and high-yield topics about your patients. Pace yourself so that you can get through the material at least once per year. That's it! If you do that, your in-training scores will skyrocket, and you will DESTROY the boards.

ARE YOU TAKING THE INITIAL EXAM FOR THE FIRST TIME? If your PBR [risk assessment](#) shows that you are a low-risk test-taker, that likely means you're a first-time test-taker, you're taking the exam immediately after residency, and you have **never come close to failing** a medical board exam (above average board scores). Visit the following PBR article for a detailed study schedule:

www.pediatricsboardreview.com/Schedule

HAVE YOU EVER FAILED A MEDICAL BOARD EXAM (OR COME CLOSE)? If your PBR [risk assessment](#) shows that you are at moderate or high risk of failing the boards, you were likely categorized as being "at risk" of failing based on your in-training exam scores, you may have failed a medical board exam (ANY medical board exam) previously, or you generally score **below the national average on your board exams**. Visit the following PBR article for detailed instructions on how you can avoid failing your pediatric boards:

www.pediatricsboardreview.com/Schedule-Failed

ARE YOU STUDYING FOR MOCA-PEDS? For the "at home," MOCA-Peds questions, the plan is simple. Use the [MOCA-PBR Study Guide & Test Companion](#). Go through our concise summaries of the most current year's Learning Objectives in detail one time. It may only take you a single day! Since MOCA-PBR is setup to be an efficient test companion to help you with your open book exam, keep it open as you do your MOCA-Peds questions. Review your MOCA-PBR study guide once per quarter. That's it!

www.pediatricsboardreview.com/MOCA

ARE YOU STUDYING FOR THE MOC? If you are taking the pediatric recertification exam, then your goal should be to get through the PBR materials at least twice and to do at least 550 practice questions. Did you know that you may have access to **200 FREE ABP questions**. Go through them!

www.pediatricsboardreview.com/MOC

PBR MEMORY AIDS - USING MNEMONICS AND PEGS

MNEMONICS: Mnemonics are memory aids that assist in helping you recall something. They are used throughout this study guide to help you study in a more focused and **EFFICIENT** manner. Not all of them will work for you, but many will. At the time of the exam, you WILL use many of the mnemonics in this book to help you answer questions. If you're lucky, you might even get a smile on your face as you think about me acting like a bit of a fool in some of the videos from the **PBR Online Video Course** (www.pediatricsboardreview.com/videos).

PEGS: Memory “pegs” are typically used to help you remember a list of items. By having 20 pre-memorized pegs that represent the numbers 1–20, you can easily “peg” items to those numbers. For example, in the PEG system outlined in this guide, a CAT symbolizes the number 9 (since cats are said to have “nine lives”).

So, if you are trying to memorize a grocery list of 10 items and one of those items is a gallon of milk, then the 9th item could be tied to an image, or a story, about a cat. It could be as simple as visualizing a funky looking BLACK CAT that has white legs drinking from an orange bowl of MILK. The white legs and orange bowl are simply thrown in to add color and imagination. Other strategies would include the use of disproportional size, the use of action, or the use of sound. The crazier the image, or story, the better!

Please note that some of the pegs in this guide will be used in the high-yield mnemonics in this book. Please look through them a few times to see if you can get the hang of it. If you can, then you might even be able to start creating some of your OWN fun and interesting mnemonics. If you cannot, it's okay. Move on since there are only a handful of mnemonics that use one of the pegs listed here. Plus, if I *do* use a peg, I usually try to remind you of the peg association in the book.

Do you have ideas on how to make the pegs or mnemonics in this book more useful?

Please consider sharing your thoughts in the private, members' only area of the **PBR Community**. You can also submit them directly to us for consideration through our errors and clarifications portal:

www.pediatricsboardreview.com/ERROR

TWENTY PEGS

#	USE THIS PEG	DESCRIPTIONS AND EXPLANATIONS OF PEGS
1	TREE TRUNK	Imagine the number 1 looking like a huge, brown tree trunk with limbs full of green foliage sitting at the top of a lush, green hilltop.
2	LIGHT SWITCH	A light switch has 2 positions (ON & OFF). Use a switch OR a bulb for “2”.
3	STOOL	Imagine a dark, cherry wood stool with 3 legs.
4	CAR	Cars have FOUR doors and FOUR wheels.
5	GLOVE or HAND	A glove has 5 fingers. Consider making Michael Jackson’s shiny glove your peg for the number FIVE.
6	GUN	Another name for a gun is a 6-shooter (since guns used to only hold 6 bullets). GUNS also kill people and put them “6 feet under” the ground.
7	DICE or CARDS	Lucky number 7! Think Vegas, think craps, think gambling with dice or cards!
8	ICE SKATE	Ice skaters are known for performing a move called the figure 8. Eight also rhymes with skate.
9	CAT	Ever heard of the phrase, “Cats have nine lives”?
10	BOWLING BALL or BOWLING PINS	The goal of bowling is to knock down 10 pins.
11	AMERICAN FOOTBALL or GOAL POST	In American football, a field goal occurs when a football is kicked through two, white, vertical uprights (the goal post). A goal post looks like the number 11.
12	EGGS	Eggs usually come in a carton that contains a dozen (12) eggs.
13	HOCKEY MASK	Unlucky number 13 and the unlucky day/movie <i>Friday the 13th</i> . The main character in the movie <i>Friday the 13th</i> is Jason, a hockey-mask-wearing killer.
14	ROSE or CHOCOLATE HEART	February 14 th is Valentine’s Day! So, think of a long-stemmed, red ROSE or perhaps a big CHOCOLATE HEART.
15	PAYCHECK	You get to give the IRS a huge chunk of your PAYCHECK every single year on TAX-DAY! APRIL 15 th . Welcome to healthcare. ☺
16	DRIVER’S LICENSE	Age at which you get a driver’s license. Other pegs to consider include CANDLES, CANDY, or a BIRTHDAY CAKE for “Sweet SIXTEEN.”
17	MAGAZINE	There is a teen magazine called “SEVENTEEN.”
18	VOTING BOOTH	Age when you become a legal adult in the U.S. and are allowed to VOTE.
19	KNIGHTING	Imagine a “KNIGHTING” ceremony (sounds like 19) or a KNIGHT.
20	CIGARETTES	A pack of CIGARETTES has 20 cigarettes in it.


There are TONS of mnemonics throughout PBR. Many will seem brilliant. Others may not work for you at all. If that happens, please CREATE YOUR OWN. It’s initially intimidating but gets much easier with time.

Click here to read PBR’s article on mnemonics: www.pbrlinks.com/MNEMONICS

GETTING THE MOST OUT OF THE PBR FORMAT

* **GRAY HIGHLIGHTING:** In the PBR hardcopy resources, gray highlighting is used over a word, phrase or chapter title to feature content that you **MUST KNOW!** These are very high-yield topics and are likely to be seen on the exam as an answer choice. PBR's **online** books may have this content in **red text** or yellow highlighting.

* **DOUBLE TAKE:** You will LOVE THIS! A “DOUBLE TAKE” alert accompanies topics that are in the book multiple times. Medicine ties together. Ordinarily, that results in flipping back and forth between chapters. Double Take is a PBR-specific system used to **increase efficiency** by reducing the flipping back and forth between related (or similar) topics. Most of these topics tend to be very high yield.

* **NAME ALERTS:**  Many disease names sound very similar (e.g., Condyloma Lata versus Condyloma Acuminata, or Shwachman-Diamond Syndrome versus Diamond-Blackfan Anemia). NAME ALERTS serve as reminders to look for these subtle differences.

* **ABBREVIATIONS:** Some disorders are discussed using their abbreviations while others are discussed with their proper names. When searching for a topic online you should do a search for both. If you encounter an unfamiliar acronym, try this tool: www.AcronymFinder.com

* **MNEMONICS:** If you're much smarter than me, you don't need these. If you have an average memory, like me, you **MUST** learn to take advantage of memory aids. They can dramatically **increase your efficiency** as you journey to retain thousands of bits of information. The PBR mnemonics may or may not work for you, but many of them **should** serve as excellent examples of the various **types** of memory aids you can begin to create. **As a tip, always use as much action, color, exaggeration and “crazy” as possible.**

* **PEARLS:** These are bits of information that help tie key concepts together for you. Members LOVE THEM! Here's a PEARL for you. ☺ There are only a finite number of ways that the ABP can test you on a disease process. Some PEARLS will show you how information could be presented on the exam.

PBR ERRORS

Are there errors in the PBR? Of course there are! But I also update the PBR every year with new recommendations and guidelines. I'm able to do this because of YOUR support. If you notice ANY error in the PBR materials (e.g., incorrect spelling, grammar, incomplete sentence, contradictory information, etc.), **PLEASE visit the link below to submit the potential error OR visit the corresponding ASK THE EXPERT portal and submit the potential error there.**

www.pediatricsboardreview.com/ERROR

Please DO NOT email individual errors or clarification requests to me. It's WAY too overwhelming. If you have MULTIPLE possible errors, send us a Word document. I LOVE the members who do that!!

Also, because it's impossible for me to respond to every submission individually, but we do address almost every submission in our ASK THE EXPERT webinars. Also, I will likely release the annual **PBR CONTENT & CLARIFICATION GUIDE** to all active PBR members (FREE) 1-2 weeks before the exam. While this is not a “guaranteed” service, it's something I've done every single year since 2011. Your submissions drive this process and allow me to provide you with updated pediatric knowledge year after year so that you can ace your boards.

PBR TOPIC CLARIFICATION OR CONFUSION

If you are struggling with a concept, get help from the members' only area in our [PBR Community](#) or the **ASK THE EXPERT** portals! The community is EXTREMELY active (especially starting around July of every year). If you find a concept explained poorly and think the PBR needs a revision, feel free to use the error portal to bring it to my attention:

www.pediatricsboardreview.com/ERROR

PBR IMAGE LINKS

The image links in the PBR lead to PHENOMENAL images throughout the web! BUT these images are located on NON-PBR websites. Some websites go out of business. When this happens, we simply need to replace the image. Typically, no more than 2% of the links within PBR are "bad." We have an awesome system that allows us to change the link on our end, but we need your help when a link "dies." **Simply submit any "bad link" through the portal below and we'll take care of it!**

www.pediatricsboardreview.com/BADLINK

PBR & AVSAR – THE NON-PROFIT CONNECTION

WHAT IS AVSAR? I started a non-profit organization, named AVSAR Inc., at the age of 27 to help support existing non-profit organizations that were already doing great work in slum areas.

After medical school, I spent one year volunteering in the slums of Mumbai. The need for help was profound and conditions were shocking. Six-year-old children worked as child laborers, using their small, agile fingers to make beautifully detailed handiwork. Others spent their days looking for recyclables in garbage dumps.

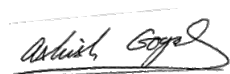
I bonded with these children. I then created a non-profit organization under the U.S. IRS, called AVSAR. We recruited volunteers from around the world (college students, dentists, doctors, MBA students) to "help where the help was needed." My personal success stories included the creation of an efficient Western-style clinic for child laborers and the establishment of an adolescent sex-education curriculum.

AVSAR helped thousands of people, but the core volunteer program was shut down in my last year of residency due to lack of funding and my 80-hour workweeks. Even so, the projects and systems created by volunteers live on and **continue** to help thousands more every year.

In order to re-launch AVSAR, we needed funding. Through Pediatrics Board Review Inc. (a private company) I donated over \$50,000 to AVSAR before ever paying myself a penny.

It's because of my passion for helping people that I created AVSAR, and the passion drives me to help pediatricians through the PBR **EXPERIENCE**.

I hope that you're able to use the many resources within the PBR *Certification System* and the PBR community to EFFICIENTLY study and pass your exam. I very much look forward to being a part of your success. Now let's get started!



PRODUCT REGISTRATION

As mentioned on the PBR site, our first-time pass guarantee applies to anyone taking an ABP initial or recertification exam for the first time. “Money Back” requests may be made within 30 days of the score release date. The original PBR purchase must have been made at least 45 days prior to the exam. Submission of the product registration form is required for the money back pass guarantee and the form must be submitted within 90 days of your purchase and before you take the exam. For complete details, please visit:

www.pediatricsboardreview.com/guarantee

Visit the following link to register your product(s):

www.pediatricsboardreview.com/register

If you made an official purchase that was initiated through the PBR website but resulted in your purchase being processed through Amazon.com, or another authorized distributor of PBR resources, please contact us through www.pediatricsboardreview.com/contact so that you can send us a copy of your receipt.

CHAPTER LIST

INTRODUCTION TO THE “EASY” PBR EXPERIENCE! (Read This!!!) 3

CHAPTER LIST 21

Chapter 1: ADOLESCENT MEDICINE 59

Chapter 2: ENDOCRINOLOGY 76

Chapter 3: OB/GYN AND SOME STDs 90

Chapter 4: ALLERGY & IMMUNOLOGY 99

Chapter 5: CARDIOLOGY 119

Chapter 6: DERMATOLOGY 144

Chapter 7: NEONATOLOGY 166

Chapter 8: DEVELOPMENTAL MILESTONES & ANTICIPATORY GUIDANCE 181

Chapter 9: EMERGENCY MEDICINE & TOXICOLOGY 203

Chapter 10: VITAMIN AND NUTRITIONAL DISORDERS 219

Chapter 11: GASTROENTEROLOGY 226

Chapter 12: PHARMACOLOGY & DRUG PEARLS 243

Chapter 13: OPHTHALMOLOGY 248

Chapter 14: GENETICS & INHERITED DISEASES 252

Chapter 15: HEMATOLOGY & ONCOLOGY 274

Chapter 16: INFECTIOUS DISEASES 296

Chapter 17: VACCINES, IMMUNIZATIONS AND CONTRAINDICATIONS 340

Chapter 18: INBORN ERRORS OF METABOLISM & MISCELLANEOUS METABOLIC DISORDERS 348

Chapter 19: ACID-BASE DISORDERS 363

Chapter 20: FLUIDS & ELECTROLYTES 371

Chapter 21: NEPHROLOGY 378

Chapter 22: STATISTICS 387

Chapter 23: NEUROLOGY 395

Chapter 24: ORTHOPEDICS AND SPORTS MEDICINE 411

Chapter 25: RHEUMATOLOGY 421

Chapter 26: PULMONOLOGY 426

Chapter 27: PSYCHIATRY AND SOME SOCIAL ISSUES 437

Chapter 28: ETHICS IN PEDIATRICS 444

Chapter 29: PATIENT SAFETY AND QUALITY IMPROVEMENT 450

Chapter 30: PEDIATRIC LAB VALUES 455

Chapter 31: PEDIATRIC VITAL SIGNS 457

Index 460




DETAILED TABLE OF CONTENTS

INTRODUCTION TO THE “EASY” PBR EXPERIENCE! (Read This!!!)	3
WHAT CHALLENGES IS PBR SYSTEM SOLVING FOR YOU?	4
WHAT IS THE BEST BUNDLE FOR ME?	5
WHAT ARE THE 7+ RESOURCES THAT YOU HAVE ACCESS TO?	6
DID YOU KNOW THAT I FAILED THE BOARDS?	12
THE PBR EFFICIENCY BLUEPRINT	13
STUDY SCHEDULE: Resident? First-Time? Failed? MOC? MOCA? WE’VE GOT YOU TAKEN CARE OF!	15
PBR MEMORY AIDS - USING MNEMONICS AND PEGS	16
GETTING THE MOST OUT OF THE PBR FORMAT	18
PBR ERRORS	18
PBR TOPIC CLARIFICATION OR CONFUSION	19
PBR IMAGE LINKS	19
PBR & AVSAR – THE NON-PROFIT CONNECTION	19
PRODUCT REGISTRATION	20
CHAPTER LIST	21
Chapter 1: ADOLESCENT MEDICINE	59
PUBERTY	59
NORMAL PUBERTY TIMELINE	59
NORMAL PUBERTY PEARLS	60
HEIGHT	60
GROWTH SPURTS	60
THELARCHE, ADRENARCHE THEN MENARCHE	60
ESTROGEN	60
ANDROGENS	60
BREAST MASSES – FIBROADENOMAS AND FIBROCYSTIC CHANGE	61
PUBERTY GONE HAYWIRE	61
PRECOCIOUS PUBERTY	61
GONADOTROPIN-INDEPENDENT PRECOCIOUS PUBERTY	62
PRECOCIOUS PUBERTY IN GIRLS	62
PRECOCIOUS PUBERTY IN BOYS	62
ADRENAL ANDROGENS	62
PREMATURE ADRENARCHE	62
CONGENITAL ADRENAL HYPERPLASIA (CAH) INTRO	62
(DOUBLE TAKE) NORMAL ADRENAL STEROID SYNTHESIS PATHWAY	63
TROPIC	63
PREMATURE THELARCHE	63
PREMATURE ADRENARCHE IN GIRLS	63
DELAYED PUBERTY	64
DELAYED PUBERTY DEFINITION AND PEARLS	64
PRIMARY AND SECONDARY HYPOGONADISM	64
PROLACTINOMA	64
CONSTITUTIONAL DELAY OF PUBERTY	64
HYPOGONADOTROPIC OVARIAN FAILURE	64



KALLMANN SYNDROME.....	65
HYPERGONADOTROPIC OVARIAN FAILURE.....	65
BASIC WORKUP OF DELAYED PUBERTY.....	65
SHORT STATURE.....	65
GENETIC OR FAMILIAL SHORT STATURE.....	65
CONSTITUTIONAL GROWTH DELAY (& PUBERTAL DELAY).....	65
GROWTH HORMONE DEFICIENCY.....	66
CONGENITAL GROWTH HORMONE DEFICIENCY.....	66
ACQUIRED GROWTH HORMONE DEFICIENCY.....	66
OTHER CONSIDERATIONS FOR SHORT STATURE.....	66
TALL STATURE.....	66
(DOUBLE TAKE) KLINEFELTER SYNDROME (AKA KLINEFELTER'S).....	66
(DOUBLE TAKE) MARFAN SYNDROME (AKA MARFANS SYNDROME).....	67
HIGH CALORIC INTAKE.....	67
OBESITY.....	67
GROWTH CHART TRENDS.....	67
ENDOCRINE DISORDERS.....	67
CHROMOSOMAL ABNORMALITIES.....	68
INADEQUATE CALORIC INTAKE or MALABSORPTIVE DISORDERS.....	68
SPARING OF HEAD CIRCUMFERENCE.....	68
SMALL HEAD DISORDERS.....	68
AMENORRHEA.....	68
AMENORRHEA PEARLS.....	68
AMENORRHEA WORKUP.....	68
PRIMARY AMENORRHEA.....	69
SECONDARY AMENORRHEA.....	69
ANOREXIA AS A CAUSE OF AMENORRHEA.....	69
BULIMIA AS A CAUSE OF AMENORRHEA.....	69
POLYCYSTIC OVARIAN SYNDROME (PCOS) AS A CAUSE OF AMENORRHEA.....	69
ABNORMAL UTERINE BLEEDING (AUB).....	70
PREMENSTRUAL SYNDROME & DYSMENORRHEA.....	70
PREMENSTRUAL SYNDROME (PMS).....	70
PRIMARY DYSMENORRHEA.....	70
SECONDARY DYSMENORRHEA.....	70
SOCIAL ISSUES.....	70
AUTONOMY.....	70
BREAST EXAMS.....	70
RAPE/PTSD.....	70
OSTEOPOROSIS.....	71
ALCOHOL AND TOBACCO.....	71
MARIJUANA.....	71
INHALANTS.....	71
CONDOMS.....	71
EMERGENCY CONTRACEPTION.....	71
PAP SMEARS.....	71
ASCUS (ATYPICAL SQUAMOUS CELLS OF UNDETERMINED SIGNIFICANCE).....	71
(DOUBLE TAKE) HUMAN PAPILLOMA VIRUS (HPV).....	71
CHLAMYDIA TRACHOMATIS.....	72

MOTOR VEHICLE ACCIDENTS.....	72
GUNS.....	72
HOMOSEXUALITY.....	72
SELF CONSENT.....	72
DRUG SCREENING.....	73
EXOGENOUS ANABOLIC STEROIDS.....	73
EATING DISORDERS.....	73
ANOREXIA.....	73
BULIMIA.....	73
REFEEDING SYNDROME.....	73
OVERWEIGHT VERSUS OBESE.....	74
SCROTAL MASS.....	74
TESTICULAR CANCER.....	74
HYDROCELE.....	74
SPERMATOCELE.....	74
VARICOCELE.....	74
INGUINAL HERNIA.....	74
TESTICULAR AND PENILE ISSUES.....	74
TESTICULAR PAIN.....	74
TESTICULAR TORSION.....	75
TORSION OF THE APPENDIX TESTES OR EPIDIDYMIS.....	75
EPIDIDYMITIS.....	75
ORCHITIS.....	75
BALANITIS.....	75
PHIMOSIS.....	75
PENILE EPIDERMAL INCLUSION CYSTS.....	75
Chapter 2: ENDOCRINOLOGY	76
THYROID DISORDERS—KEY TERMINOLOGY.....	76
HYPOTHYROIDISM.....	76
THYROXINE-BINDING GLOBULIN DEFICIENCY.....	76
HYPOTHYROIDISM & CONGENITAL HYPOTHYROIDISM.....	76
THYROID GLAND CYST.....	77
THYROID NODULES.....	77
HYPERTHYROIDISM.....	77
GRAVES DISEASE = HYPERTHYROIDISM.....	77
NEONATAL THYROTOXICOSIS (AKA NEONATAL GRAVES DISEASE).....	77
CALCIUM AND VITAMIN D RELATED DISORDERS.....	78
(DOUBLE TAKE) HYPERCALCEMIA.....	78
(DOUBLE TAKE) HYPOCALCEMIA.....	78
VITAMIN D & ITS EVALUATION.....	80
(DOUBLE TAKE) RICKETS.....	80
(DOUBLE TAKE) RICKETS OF PREMATURENESS (AKA OSTEOPENIA OF PREMATURENESS).....	81
(DOUBLE TAKE) LIVER DYSFUNCTION.....	81
ADRENAL DISORDERS.....	81
(DOUBLE TAKE) NORMAL ADRENAL STEROID SYNTHESIS PATHWAY.....	81
CUSHING SYNDROME (AKA CUSHING'S SYNDROME).....	82
ADDISON DISEASE (AKA ADDISON'S DISEASE).....	82




CONGENITAL ADRENAL HYPERPLASIA (CAH).....	83
21-HYDROXYLASE DEFICIENCY	83
11-HYDROXYLASE DEFICIENCY	84
17-HYDROXYLASE DEFICIENCY	84
PANHYPOPITUITARISM	84
AMBIGUOUS GENITALIA & DISORDERS OF SEX DEVELOPMENT (DSD).....	84
AMBIGUOUS GENITALIA	85
MICROPENIS.....	85
ANDROGEN INSENSITIVITY SYNDROME (AKA TESTICULAR FEMINIZATION).....	85
MULLERIAN INHIBITOR HORMONE DEFICIENCY (AKA MIH RECEPTOR DEFECT).....	86
MALE PSEUDOHERMAPHRODITISM	86
TRUE HERMAPHRODITISM	86
(DOUBLE TAKE) TURNER SYNDROME (AKA TURNERS)	86
(DOUBLE TAKE) KLINEFELTER SYNDROME (AKA KLINEFELTER'S).....	87
DIABETES MELLITUS.....	87
HONEYMOON PERIOD.....	87
HEMOGLOBIN A1C.....	87
SOMOGYI EFFECT & DAWN PHENOMENA	87
HYPOGLYCEMIA.....	87
DIABETIC KETOACIDOSIS (DKA) AND HYPEROSMOLAR HYPERGLYCEMIC STATE (HHS).....	88
TYPE 2 DIABETES MELLITUS (T2DM).....	88
PREDIABETES.....	89
(DOUBLE TAKE) PSEUDOHYPONATREMIA	89
ACANTHOSIS NIGRICANS.....	89
METABOLIC SYNDROME.....	89
Chapter 3: OB/GYN AND SOME STDs	90
OBSTETRICS	90
ORAL CONTRACEPTIVE PILLS (OCPs)	90
CONCEPTION.....	90
PRENATAL CARE (PNC).....	90
(DOUBLE TAKE) GBS SCREENING AND PROPHYLAXIS MADE EASY!.....	90
GESTATIONAL DIABETES MELLITUS.....	91
SERUM ALPHA-FETOPROTEIN (AFP) SCREEN.....	91
CHORIONIC VILLUS SAMPLING.....	92
AMNIOCENTESIS	92
MATERNAL <u>SERUM</u> TRIPLE SCREEN AND QUADRUPLE SCREEN	92
FIRST TRIMESTER SCREENING OPTIONS FOR DOWNS SYNDROME	92
NON-STRESS TEST.....	92
BIOPHYSICAL PROFILE (BPP)	93
STRESS TEST (AKA CONTRACTION STRESS TEST).....	93
FOLIC ACID.....	93
LUNG MATURITY.....	93
MONOZYGOTIC TWINS	93
DIZYGOTIC TWINS	94
GYNECOLOGY & SOME STDs	94
PARENTAL CONSENT	94
(DOUBLE TAKE) CHLAMYDIA TRACHOMATIS.....	94
NEISSERIA GONORRHEA.....	95

NONGONOCOCCAL URETHRITIS	95
PELVIC INFLAMMATORY DISEASE (PID)	95
FITZ-HUGH CURTIS SYNDROME (AKA PERI-HEPATITIS)	95
(DOUBLE TAKE) SYPHILIS	96
BACTERIAL VAGINOSIS (AKA GARDNERELLA)	96
(DOUBLE TAKE) TRICHOMONAS VAGINALIS	96
CANDIDA VULVOVAGINITIS	97
(DOUBLE TAKE) HERPES SIMPLEX VIRUS (HSV)	97
VAGINAL FOREIGN BODY	97
ULCERS VERSUS DISCHARGE	97
VAGINAL DISCHARGE AT BIRTH	98
LABIAL ADHESIONS (PENILE ADHESIONS for boys)	98
BARTHOLIN GLAND CYSTS	98
SEXUAL ABUSE IN GIRLS	98
Chapter 4: ALLERGY & IMMUNOLOGY	99
HAY FEVER, FOOD ALLERGIES, AND ALLERGIC RASHES	99
HAY FEVER/ALLERGIC RHINITIS	99
CHRONIC RHINITIS	99
VASOMOTOR RHINITIS	99
SKIN TESTING	99
IMMUNOTHERAPY	99
RADIOALLERGOSORBENT TESTING FOR IGE (AKA RAST)	100
FOOD ALLERGIES	100
PEANUT ALLERGY	100
FOOD "SENSITIVITIES"	100
(DOUBLE TAKE) ATOPIC DERMATITIS (ECZEMA)	101
URTICARIA (HIVES)	101
CHRONIC URTICARIA (> 6 weeks)	101
(DOUBLE TAKE) C1 ESTERASE DEFICIENCY (HEREDITARY ANGIOEDEMA)	101
ARTIFICIAL FOOD COLORING	101
(DOUBLE TAKE) ANAPHYLAXIS	101
FIXED DRUG REACTION	102
TRUE MILK PROTEIN ALLERGY	102
(DOUBLE TAKE) FOOD PROTEIN INDUCED ENTEROPATHY 	103
(DOUBLE TAKE) FOOD PROTEIN INDUCED PROCTITIS/COLITIS 	103
(DOUBLE TAKE) FOOD PROTEIN INDUCED ENTEROCOLITIS SYNDROME (FPIES) 	103
(DOUBLE TAKE) LACTOSE INTOLERANCE (AKA LACTASE DEFICIENCY)	104
IMMUNOLOGY	104
EPINEPHRINE PEN	104
TYPES OF HYPERSENSITIVITY REACTIONS	104
(DOUBLE TAKE) ANAPHYLAXIS	105
DRUG HYPERSENSITIVITY SYNDROME	105
ANTICONSULSANT HYPERSENSITIVITY SYNDROME	105
IGE MEDIATED MEDICATION HYPERSENSITIVITY	106


PENICILLIN (PCN) ALLERGY.....	106
SERUM SICKNESS.....	106
BEE STINGS.....	106
POISON IVY, POISON OAK, & POISON SUMAC.....	106
TYPES OF IMMUNITY	106
CD4 CELL.....	107
CD8 CELL.....	107
NEUTROPENIA	107
PEARLS/MNEMONICS FOR BRUTON'S, SCID, AND HYPER-IGM	107
PNEUMOCYSTIS CARINII PNEUMONIA (PCP).....	107
PEDIATRIC LYMPHOcyte COUNTS.....	108
T-CELL DEFICIENCIES AND COMBINED T-CELL/B-CELL DEFICIENCIES.....	108
SEVERE COMBINED IMMUNODEFICIENCY (SCID)	108
MNEMONICS & PEARL FOR SCID AND WISKOTT-ALDRICH	109
(DOUBLE TAKE) WISKOTT-ALDRICH SYNDROME	109
22Q11.2 DELETION SYNDROME = DIGEORGE SYNDROME OR DIGEORGE LOCUS	110
(DOUBLE TAKE) ATAXIA TELANGIECTASIA.....	110
COMMON VARIABLE IMMUNE DEFICIENCY (CVID)	111
HYPER IGM SYNDROME.....	111
B-CELL DEFICIENCIES.....	111
PEARLS:	111
AGAMMAGLOBULINEMIA (AKA X-LINKED AGAMMAGLOBULINEMIA, AKA BRUTON'S AGAMMAGLOBULINEMIA).....	112
TRANSIENT HYPOGAMMAGLOBULINEMIA OF INFANCY.....	112
IGA DEFICIENCY.....	113
HYPER-IGE SYNDROME.....	113
COMPLEMENT DEFICIENCIES	113
GENERAL PEARLS.....	113
C1-4 COMPLEMENT DEFICIENCY.....	113
C5-9 COMPLEMENT DEFICIENCY.....	113
(DOUBLE TAKE) C1 ESTERASE DEFICIENCY (HEREDITARY ANGIOEDEMA)	113
CONDITIONS WITH LOW COMPLEMENT LEVEL.....	114
NEUTROPHIL DISORDERS/PHAGOCYTIC ISSUES	114
NEUTROPENIA DEFINITIONS.....	114
CHRONIC BENIGN NEUTROPENIA.....	115
TRANSIENT NEUTROPENIA.....	115
CYCLIC NEUTROPENIA	115
SEVERE CONGENITAL NEUTROPENIA (AKA KOSTMANN SYNDROME)	115
(DOUBLE TAKE) CHRONIC GRANULOMATOUS DISEASE (CGD) = SERRATIA	115
LEUKOCYTE ADHESION DEFICIENCY (AKA LEUKOCYTE ADHESION DEFECT).....	115
CHEDIAK-HIGASHI SYNDROME.....	116
(DOUBLE TAKE) SHWACHMAN-DIAMOND SYNDROME	116
(DOUBLE TAKE) DIAMOND-BLACKFAN ANEMIA	116
IMMUNOLOGY TESTS, A RECAP.....	117
SKIN TESTING.....	117
TITERS.....	117

CH50.....	117
NITROblue TETRAZOLIUM (NBT).....	118
Chapter 5: CARDIOLOGY	119
EKG FINDINGS.....	119
RIGHT ATRIAL ENLARGEMENT (RAE).....	119
LEFT ATRIAL ENLARGEMENT (LAE).....	119
NEGATIVE T WAVE.....	119
PREMATURE ATRIAL COMPLEXES (PACs)	119
PREMATURE VENTRICULAR COMPLEXES (PVCs)	119
EKG CHANGES DUE TO ELECTROLYTE DISTURBANCES	119
NORMAL HEART RATES.....	120
SINOATRIAL NODE (SA NODE), ATRIOVENTRICULAR NODE (AV NODE) and VENTRICULAR INTRINSIC RATES.....	120
ARRHYTHMIAS	120
BRUGADA SYNDROME	120
SUPRAVENTRICULAR TACHYCARDIA (SVT).....	121
WOLFF-PARKINSON-WHITE SYNDROME (WPW) AND AV REENTRANT TACHYCARDIA (AVRT) 	121
AV <u>NODE</u> REENTRANT TACHYCARDIA (AVNRT) 	122
ADENOSINE AND VAGAL MANEUVERS.....	122
ATRIAL TACHYCARDIAS.....	122
ATRIAL FIBRILLATION & ATRIAL FLUTTER.....	122
VENTRICULAR TACHYCARDIA (VT OR VTACH)	122
PROLONGED QT	123
HEART BLOCKS (AV BLOCKS OR AVB)	123
FIRST DEGREE AV BLOCK	123
SECOND DEGREE AV BLOCK	123
THIRD DEGREE AV BLOCK = COMPLETE HEART BLOCK.....	123
BUNDLE BRANCH BLOCKS.....	124
SEPTAL DEFECTS	124
CARDIAC SHUNT PEARLS & MNEMONICS	124
ATRIAL SEPTAL DEFECTS (ASD).....	124
VENTRICULAR SEPTAL DEFECTS (VSDS)	124
AV CANAL DEFECT	125
AV CANAL DEFECT & VSD	125
MURMURS & SPLITS.....	125
PATHOLOGIC MURMURS	125
MURMUR TERMINOLOGY.....	125
PULMONARY STENOSIS (PS)	126
MITRAL STENOSIS (MS).....	126
TRICUSPID STENOSIS (TS).....	126
AORTIC STENOSIS (AS).....	126
MITRAL REGURGITATION (MR)	126
MITRAL VALVE PROLAPSE (MVP).....	126
AORTIC REGURGITATION/INSUFFICIENCY (AR OR AI)	127
RIGHT UPPER STERNAL BORDER (RUSB) MURMURS	127
LEFT UPPER STERNAL BORDER (LUSB) MURMURS	127

LEFT LOWER STERNAL BORDER (LLSB) MURMURS.....	127
LEFT SUBCLAVICULAR MURMURS.....	127
APICAL MURMURS.....	127
HOLOSYSTOLIC MURMURS.....	127
CONTINUOUS MURMURS.....	128
BOUNDING PULSE.....	128
WIDE PULSE PRESSURE.....	128
CRANIAL BRUITS.....	128
CAROTID BRUITS.....	128
FIXED SPLIT S2.....	128
WIDELY SPLIT S2.....	128
PARADOXICAL SPLIT OF S2.....	128
FETAL CIRCULATION.....	129
NORMAL CIRCULATION.....	129
FETAL CIRCULATION.....	129
RIGHT VENTRICLE (RV).....	130
CYANOTIC CONGENITAL HEART DISEASES (CCHD).....	130
PEARL (RE: SHUNTS).....	130
CYANOTIC CONGENITAL HEART DISEASES <u>MNEMONIC</u>	130
CYANOSIS ALGORITHM AND PEARL.....	130
PROSTAGLANDIN (PGE1).....	130
PATENT DUCTUS ARTERIOSUS (PDA).....	130
COARCTATION OF THE AORTA.....	131
PREDUCTAL & POSTDUCTAL SATURATION.....	131
TRUNCUS ARTERIOSUS (TA).....	131
TRANSPOSITION OF THE GREAT ARTERIES (TGA/TOGA).....	131
TETRALOGY OF FALLOT (TOF).....	132
TOTAL ANOMALOUS PULMONARY VENOUS RETURN (TAPVR).....	133
HYPOPLASTIC LEFT HEART.....	133
TRICUSPID ATRESIA.....	133
PULMONARY ATRESIA (AKA PULMONARY VALVE ATRESIA).....	133
EBSTEIN'S ANOMALY.....	133
PERSISTENT PULMONARY HYPERTENSION = PERSISTENCE OF FETAL CIRCULATION.....	133
RHEUMATIC FEVER & RHEUMATIC HEART DISEASE.....	135
RHEUMATIC FEVER.....	135
JONES CRITERIA FOR RHEUMATIC FEVER.....	135
MAJOR JONES CRITERIA FOR ACUTE RHEUMATIC FEVER.....	135
MINOR JONES CRITERIA FOR ACUTE RHEUMATIC FEVER.....	136
RHEUMATIC FEVER TREATMENT.....	136
RHEUMATIC FEVER ASSOCIATIONS.....	136
KAWASAKI DISEASE, AKA MUCOCUTANEOUS LYMPH NODE SYNDROME.....	137
DIAGNOSTIC CRITERIA FOR KAWASAKI DISEASE.....	137
SUPPORTIVE DATA.....	137
COMPLICATIONS OF KAWASAKI DISEASE.....	137
TREATMENT OF KAWASAKI DISEASE.....	137
ENDOCARDITIS.....	137
ENDOCARDITIS DEFINITION.....	137
ACUTE BACTERIAL ENDOCARDITIS.....	138

SUBACUTE BACTERIAL ENDOCARDITIS.....	138
DIAGNOSING ENDOCARDITIS.....	138
TREATMENT OF ENDOCARDITIS.....	138
NATIVE VALVE ENDOCARDITIS.....	138
PROSTHETIC VALVE ENDOCARDITIS.....	139
PROPHYLAXIS FOR SUBACUTE BACTERIAL ENDOCARDITIS (SBE).....	139
MISCELLANEOUS CARDIOLOGY.....	139
PULSUS PARADOXUS.....	139
PERICARDITIS.....	139
PERICARDIAL EFFUSIONS.....	140
MYOCARDITIS.....	140
EARLY CONGESTIVE HEART FAILURE.....	140
HYPERTROPHIC CARDIOMYOPATHY = HYPERTROPHIC OBSTRUCTIVE CARDIOMYOPATHY (HCM, HOCM).....	140
CARDIOMEGALY AND HYPERTROPHY.....	141
CHEST PAIN.....	141
SVC SYNDROME.....	141
MEDIALY DISPLACED PMI.....	141
PEDIATRIC BLOOD PRESSURE GUIDELINES.....	141
CHOLESTEROL SCREENING = HYPERLIPIDEMIA SCREENING.....	142
FAMILIAL HYPERCHOLESTEROLEMIA.....	143
Chapter 6: DERMATOLOGY	144
GENERAL DERMATOLOGY.....	144
CONTACT DERMATITIS, A DIAPER RASH.....	144
(DOUBLE TAKE) CUTANEOUS CANDIDIASIS, A DIAPER DERMATITIS.....	144
(DOUBLE TAKE) ATOPIC DERMATITIS (ECZEMA).....	144
NUMMULAR ECZEMA.....	144
(DOUBLE TAKE) ECZEMA HERPETICUM.....	144
SEBORRHEIC DERMATITIS (AKA CRADLE CAP).....	145
PSORIASIS.....	145
GUTTATE PSORIASIS.....	145
(DOUBLE TAKE) LANGERHANS CELL HISTIOCYTOSIS (LCH) = HISTIOCYTOSIS X.....	145
RASHES THAT SPARE THE INGUINAL FOLDS.....	145
PRURITIC RASHES.....	145
KERATOSIS PILARIS.....	145
LICHEN SCLEROSUS.....	146
LICHEN STRIATUS.....	146
ALLERGIC CONTACT DERMATITIS, A TYPE IV HYPERSENSITIVITY SKIN RASH.....	146
(DOUBLE TAKE) BIOTIN/BIOTINIDASE DEFICIENCY.....	146
PAPULAR URTICARIA.....	147
VITILIGO.....	147
(NAME ALERT) ICHTHYOSIS VULGARIS 	147
(NAME ALERT) LAMELLAR ICHTHYOSIS (AKA COLLODION BABY) 	147
(NAME ALERT) HARLEQUIN ICHTHYOSIS 	147
PYODERMA GANGRENOSUM.....	147
(DOUBLE TAKE) ECTHYMA GANGRENOSUM.....	148

GRANULOMA ANNULARE.....	148
PITTED KERATOLYSIS.....	148
(DOUBLE TAKE) DERMATOMYOSITIS.....	148
STEVENS-JOHNSON SYNDROME (SJS) and TOXIC EPIDERMAL NECROLYSIS (TEN).....	148
ERYTHEMA MULTIFORME (EM).....	149
(DOUBLE TAKE) NEONATAL LUPUS.....	149
RASHES WITH CENTRAL CLEARING (PEARL).....	149
RASHES WITH CENTRAL DARKENING/TARGET LESIONS (PEARL).....	149
URTICARIA/HIVES.....	149
SCLERODERMA.....	149
DERMOID CYSTS.....	150
EPIDERMOID CYSTS (AKA EPIDERMAL CYSTS).....	150
COMEDONAL ACNE.....	150
INFLAMMATORY ACNE.....	150
ISOTRETINOIN.....	150
(DOUBLE TAKE) APHTHOUS ULCERS.....	150
TEETH ISSUES.....	151
TOOTH TIMELINE.....	151
PEG TEETH.....	151
HUTCHINSON TEETH.....	151
TETRACYCLINE TEETH STAINING.....	151
FLUOROSIS.....	151
AVULSED TEETH.....	151
VASCULAR & PIGMENTED LESIONS.....	151
HEMANGIOMAS.....	151
(DOUBLE TAKE) PHACES SYNDROME.....	152
(DOUBLE TAKE) KASABACH-MERRITT SYNDROME.....	152
NEVUS SIMPLEX.....	152
PORT WINE STAINS (PWS) (AKA NEVUS FLAMMEUS).....	153
STURGE-WEBER SYNDROME (SWS).....	153
CAPILLARY MALFORMATION ASSOCIATIONS.....	153
(DOUBLE TAKE) KLIPPEL-TRENAUNAY SYNDROME.....	153
(NAME ALERT) KLIPPEL-FEIL SYNDROME.....	154
CONGENITAL MELANOCYTIC NEVUS.....	154
MCCUNE-ALBRIGHT SYNDROME (AKA POLYOSTOTIC FIBROUS DYSPLASIA).....	154
TUBEROUS SCLEROSIS.....	154
NEUROFIBROMATOSIS 1 (NF1).....	155
NEUROFIBROMATOSIS 2 (NF2).....	155
INCONTINENTIA PIGMENTI.....	155
HYPOHIDROTIC ECTODERMAL DYSPLASIA.....	156
INFECTIOUS SKIN CONDITIONS.....	156
(DOUBLE TAKE) ECTHYMA GANGRENOSUM.....	156
STREPTOCOCCAL INFECTIONS OF THE GROIN.....	156
(DOUBLE TAKE) CUTANEOUS CANDIDIASIS, A DIAPER DERMATITIS.....	156
BULLOUS IMPETIGO/STAPH SCALDED SKIN SYNDROME (SSSS).....	156
STAPHYLOCOCCUS EPIDERMIDIS.....	157

CELLULITIS.....	157
TINEA CORPORIS.....	157
TINEA VERSICOLOR (AKA PITYRIASIS VERSICOLOR).....	157
PITYRIASIS ROSEA.....	157
MOLLUSCUM CONTAGIOSUM.....	157
(DOUBLE TAKE) HUMAN PAPILLOMA VIRUS (HPV).....	158
CONDYLOMA <u>LATA</u> 	158
HERPES SIMPLEX VIRUSES 1 & 2 (HSV 1 & 2).....	158
HERPES SIMPLEX VIRUS ENCEPHALITIS (HSV ENCEPHALITIS).....	159
(DOUBLE TAKE) HERPES SIMPLEX VIRUS GINGIVOSTOMATITIS.....	159
(DOUBLE TAKE) ECZEMA HERPETICUM.....	159
(DOUBLE TAKE) BLUEBERRY MUFFIN RASH DIFFERENTIAL DIAGNOSIS.....	159
SCABIES.....	160
PEDICULOSIS CAPITIS (AKA HEAD LICE).....	160
PEDICULOSIS PUBIS (AKA PUBIC LICE or CRABS).....	160
THE “ERYTHEMA” RASHES.....	160
ERYTHEMA NODOSUM.....	160
(DOUBLE TAKE) ERYTHEMA CHRONICUM MIGRANS.....	160
(DOUBLE TAKE) ERYTHEMA MARGINATUM.....	161
(DOUBLE TAKE) ERYTHEMA INFECTIOSUM.....	161
ERYTHEMA TOXICUM NEONATORUM.....	161
ERYTHEMA MULTIFORME.....	162
THE NEWBORN RASHES.....	162
MILIARIA RUBRA.....	162
MILIA.....	162
SEBACEOUS HYPERPLASIA.....	162
ERYTHEMA TOXICUM NEONATORUM.....	162
TRANSIENT NEONATAL PUSTULAR MELANOSIS.....	162
NEONATAL ACNE (AKA NEONATAL CEPHALIC PUSTULOSIS).....	163
INFANTILE ACNE.....	163
LIVIDO RETICULARIS (AKA CUTIS MARMORATA).....	163
ALOPECIA & HAIR FINDINGS.....	163
ALOPECIA AREATA.....	163
ALOPECIA TOTALIS.....	163
ALOPECIA UNIVERSALIS.....	163
(DOUBLE TAKE) ZINC DEFICIENCY.....	163
(DOUBLE TAKE) ACRODERMATITIS ENTEROPATHICA.....	164
(DOUBLE TAKE) BIOTIN/BIOTINIDASE DEFICIENCY.....	164
TELOGEN EFFLUVIUM.....	164
TINEA CAPITIS (AKA RINGWORM).....	164
TRICHOTILLOMANIA.....	165
(DOUBLE TAKE) ESSENTIAL FATTY ACID DEFICIENCIES.....	165
APLASIA CUTIS CONGENITA.....	165
Chapter 7: NEONATOLOGY.....	166
WEIGHT, LENGTH, & HEAD CIRCUMFERENCE.....	166
NEWBORN WEIGHT.....	166
PREDICTED GROWTH RULES OF THUMB.....	166

INTRAUTERINE GROWTH RESTRICTION = INTRAUTERINE GROWTH RETARDATION = IUGR.....	166
HEAD CIRCUMFERENCE – MACROCEPHALY, HYDROCEPHALY, AND MICROCEPHALY	167
NUTRITION, BREAST MILK, & FORMULA.....	167
NEONATAL POTASSIUM REQUIREMENTS.....	167
NEONATAL SODIUM REQUIREMENTS	167
PROTEIN INTAKE.....	167
NEONATAL CALORIC REQUIREMENT.....	168
EXCLUSIVELY BREASTFED BABIES	168
BREAST MILK.....	168
FORMULA.....	169
IRON SUPPLEMENTATION.....	169
WHOLE MILK.....	169
PREMATURE INFANTS.....	170
CLASSIFICATION.....	170
ESTIMATING GESTATIONAL AGE BY PHYSICAL EXAM.....	170
CALCULATING GESTATIONAL AGE	170
PREMATURE INFANT NUTRITION.....	170
TOTAL PARENTERAL NUTRITION (TPN).....	171
RETINOPATHY OF PREMATURITY (ROP)	171
NEONATAL JAUNDICE, HYPERBILIRUBINEMIA, AND HEMOLYTIC DISEASE OF THE NEWBORN	171
NEONATAL JAUNDICE.....	171
HYPERBILIRUBINEMIA	171
RISK FACTORS FOR DEVELOPING HYPERBILIRUBINEMIA	172
(DOUBLE TAKE) RHESUS DISEASE (AKA RH DISEASE)	172
(DOUBLE TAKE) ABO INCOMPATIBILITY.....	172
(DOUBLE TAKE) GLUCOSE-6-PHOSPHATE DEHYDROGENASE DEFICIENCY (G6PD DEFICIENCY)	172
MISCELLANEOUS.....	173
FULL TERM	173
NEONATE.....	173
INFANT.....	173
APNEA	173
(DOUBLE TAKE) GBS SCREENING AND PROPHYLAXIS MADE EASY!.....	173
SUDDEN INFANT DEATH SYNDROME (SIDS)	175
ANURIA	175
ANEMIA.....	175
APT TEST.....	175
NEONATAL HYPOGLYCEMIA.....	175
SHOCK-LIKE SYMPTOMS.....	175
(DOUBLE TAKE) MECONIUM ASPIRATION SYNDROME (MAS).....	175
(DOUBLE TAKE) NECROTIZING ENTEROCOLITIS (NEC).....	175
(DOUBLE TAKE) FEBRILE INFANT AND SEPTIC WORKUP	176
CRYING.....	177
COLIC.....	177
SLEEP.....	177
SUN SAFETY.....	177
AUTOMOBILE AND CAR SEAT SAFETY.....	177
VERY LOW BIRTH WEIGHT (VLBW).....	178
PREGNANCY INDUCED HYPERTENSION (PIH)	178
NALOXONE	178

FAILURE TO THRIVE (FTT)	178
ARTHROGRYPOSIS MULTIPLEX.....	178
CEPHALOHEMATOMA.....	178
CAPUT SUCCEDANEUM	178
UMBILICAL CORD.....	179
CORD CATHETERS	179
SINGLE UMBILICAL ARTERY.....	179
HYPOSPADIAS.....	179
(DOUBLE TAKE) RUSSELL-SILVER SYNDROME (AKA SILVER RUSSELL SYNDROME).....	179
UNDESCENDED TESTICLE	180
Chapter 8: DEVELOPMENTAL MILESTONES & ANTICIPATORY GUIDANCE.....	181
KEY NOTES & CONCEPTS.....	181
AN IMPORTANT NOTE ABOUT PBR'S MILESTONES CHECKLISTS.....	181
DEVELOPMENTAL MILESTONES THROUGH ADOLESCENCE.....	182
DEVELOPMENTAL MILESTONES SCREENING TOOLS.....	182
BIRTH MILESTONES TO KEEP ON YOUR RADAR.....	183
1-MONTH-OLD MILESTONES TO KEEP ON YOUR RADAR.....	183
2-MONTH-OLD MILESTONES TO KEEP ON YOUR RADAR.....	184
SURVEILLANCE MILESTONES - 4 MONTHS OF AGE.....	185
4-MONTH-OLD MILESTONES TO KEEP ON YOUR RADAR.....	185
SURVEILLANCE MILESTONES - 6 MONTHS OF AGE.....	186
6-MONTH-OLD MILESTONES TO KEEP ON YOUR RADAR.....	186
SURVEILLANCE MILESTONES - 9 MONTHS OF AGE.....	187
9-MONTH-OLD MILESTONES TO KEEP ON YOUR RADAR.....	187
SURVEILLANCE MILESTONES - 12 MONTHS OF AGE.....	188
12-MONTH-OLD MILESTONES TO KEEP ON YOUR RADAR	188
15-MONTH-OLD MILESTONES TO KEEP ON YOUR RADAR	189
SURVEILLANCE MILESTONES - 18 MONTHS OF AGE.....	190
18-MONTH-OLD MILESTONES TO KEEP ON YOUR RADAR	190
SURVEILLANCE MILESTONES – 2 YEARS OF AGE.....	191
2-YEAR-OLD MILESTONES TO KEEP ON YOUR RADAR.....	191
SURVEILLANCE MILESTONES - 30 MONTHS OF AGE.....	192
30-MONTH-OLD MILESTONES TO KEEP ON YOUR RADAR	192
SURVEILLANCE MILESTONES – 3 YEARS OF AGE.....	193
3-YEAR-OLD MILESTONES TO KEEP ON YOUR RADAR.....	193
SURVEILLANCE MILESTONES – 4 YEARS OF AGE.....	194
4-YEAR-OLD MILESTONES TO KEEP ON YOUR RADAR.....	194
SURVEILLANCE MILESTONES – 5 YEARS OF AGE.....	195
5-YEAR-OLD MILESTONES TO KEEP ON YOUR RADAR.....	195
6-YEAR-OLD MILESTONES TO KEEP ON YOUR RADAR.....	196
MILESTONES TO KEEP ON YOUR RADAR - DRAWING SHAPES	197
COGNITION.....	198
COGNITIVE REASONING VERSUS CONCRETE THINKING.....	198
ANTICIPATORY GUIDANCE & SAFETY.....	199
PREVENTATIVE MEDICINE TERMINOLOGY.....	199
FLUORIDE SUPPLEMENTATION	199
HOT WATER HEATER.....	199
HEARING SCREENING (AUDIOMETRY).....	199

LEAD SCREENING	199
FIRST DENTAL EXAM	200
MOUTH GUARDS.....	200
CONTACT SPORTS PARTICIPATION.....	200
BICYCLE SAFETY	200
BOAT SAFETY.....	200
AGE-APPROPRIATE ANTICIPATORY GUIDANCE AND SAFETY (BRIGHT FUTURES).....	200


Chapter 9: EMERGENCY MEDICINE & TOXICOLOGY..... 203

MENTAL STATUS CHANGES	203
PUPILS.....	203
MIOSIS	203
MYDRIASIS	203
NYSTAGMUS	203
DIAPHORESIS.....	203
TOXIDROMES	204
OSMOLAR AND ANION GAPS.....	204
SYRUP OF IPECAC.....	204
CHARCOAL.....	204
ACETAMINOPHEN INGESTION	205
ALCOHOL (ETHANOL).....	205
METHANOL INGESTION.....	205
ETHYLENE GLYCOL INGESTION.....	206
ISOPROPYL ALCOHOL.....	206
STIMULANTS.....	206
AMPHETAMINES	206
COCAINE.....	207
HALLUCINOGENS	207
PHENCYCLIDINE (PCP)	207
LYSERGAMIDE (LSD).....	207
SEDATIVE HYPNOTICS.....	207
BENZODIAZEPINES.....	207
BARBITURATES.....	207
OPIOIDS	207
MARIJUANA (MJ).....	207
NICOTINE/TOBACCO/SMOKING	208
DEXTROMETHORPHAN.....	208
ANTIHISTAMINES.....	208
HYDROCARBON INGESTION.....	208
HYDROCARBON INHALATION.....	208
SEROTONIN SYNDROME.....	208
MDMA	208
URINE DRUG SCREENING.....	208
DRUGS OF ABUSE AND ASSOCIATED SYMPTOMS (TABLE).....	209
CHOLINERGICS.....	210
ANTICHOLINERGICS	210
TRICYCLIC ANTIDEPRESSANT (TCA) TOXICITY	210
SALICYLATES.....	210
IBUPROFEN OVERDOSE	211
IRON OVERDOSE.....	211

(DOUBLE TAKE) LEAD TOXICITY.....	211
CLONIDINE & PHENOTHIAZINES OVERDOSE.....	212
BETA BLOCKER OVERDOSE.....	212
CALCIUM CHANNEL BLOCKER OVERDOSE	212
DIGOXIN TOXICITY	212
THEOPHYLLINE	212
CARBON MONOXIDE (CO)	212
METHEMOGLOBINEMIA	213
ACID OR BASE INGESTION	213
CYANIDE POISONING	213
FOREIGN BODY INGESTION	213
SHARP OBJECT INGESTION	214
(DOUBLE TAKE) RABIES VIRUS.....	214
BROWN RECLUSE SPIDER.....	214
BLACK WIDOW.....	214
COMMON BITES.....	214
SCORPION STING.....	215
BURN TREATMENT.....	215
NEAR DROWNING.....	215
POOL SAFETY.....	216
HYPOTHERMIA.....	216
HEAD INJURY	216
GLASGOW COMA SCORE.....	216
POST-CONCUSSION TREATMENT (2013 AAN GUIDELINES).....	217
ENDOTRACHEAL TUBES AND VENTILATION	217
IMPAIRED PERFUSION/HYPOVOLEMIA.....	217
CARDIOPULMONARY RESUSCITATION (CPR).....	217
Chapter 10: VITAMIN AND NUTRITIONAL DISORDERS	219
FAT-SOLUBLE VITAMINS.....	219
VITAMIN A (AKA RETINOL).....	219
VITAMIN K DEFICIENCY (AKA PHYTONADIONE DEFICIENCY).....	220
VITAMIN E DEFICIENCY (AKA TOCOPHEROL DEFICIENCY).....	220
VITAMIN D (ERGOCALCIFEROL, CHOLECALCIFEROL) EXCESS	220
VITAMIN D DEFICIENCY	220
(DOUBLE TAKE) RICKETS	220
(DOUBLE TAKE) RICKETS OF PREMATURITY (AKA OSTEOPENIA OF PREMATURITY).....	221
(DOUBLE TAKE) LIVER DYSFUNCTION	221
WATER-SOLUBLE NUTRIENTS	222
THIAMINE (B1) DEFICIENCY.....	222
RIBOFLAVIN (B2) DEFICIENCY.....	222
NIACIN (B3) DEFICIENCY.....	222
PYRIDOXINE (B6) DEFICIENCY.....	223
(DOUBLE TAKE) BIOTIN/BIOTINIDASE (B7) DEFICIENCY.....	223
(DOUBLE TAKE) FOLATE (B9) DEFICIENCY.....	223
(DOUBLE TAKE) B12 DEFICIENCY (AKA CYANOCOBALAMIN DEFICIENCY)	223
VITAMIN C DEFICIENCY AND EXCESS.....	223
(DOUBLE TAKE) ZINC DEFICIENCY.....	224
(DOUBLE TAKE) ACRODERMATITIS ENTEROPATHICA.....	224
COPPER DEFICIENCY.....	224

(DOUBLE TAKE) STRICT VEGETARIANS AND VEGANS	224
NUTRITIONAL DEFICIENCIES	225
ENERGY REQUIREMENTS IN CHILDREN.....	225
KWASHIORKOR	225
MARASMUS	225
(DOUBLE TAKE) ESSENTIAL FATTY ACID DEFICIENCIES	225

Chapter 11: GASTROENTEROLOGY 226

LIVER DISEASE	226
CONGENITAL HEPATIC FIBROSIS.....	226
HEPATOMEGALY	226
GALLBLADDER HYDROPS.....	226
HEPATOBLASTOMA	226
PRIMARY SCLEROSING CHOLANGITIS (PSC).....	226
HEPATOBIILIARY IMINODIACETIC ACID SCAN (AKA HIDA SCAN or CHOLESCINTIGRAPHY).....	226
TRANSAMINITIS	227
ALKALINE PHOSPHATASE	227
BILIARY OBSTRUCTION	227
CAUSES OF JAUNDICE	227
CHOLESTASIS.....	227
BILIARY ATRESIA	227
CHOLEDOCHAL CYSTS	227
PROGRESSIVE FAMILIAL INTRAHEPATIC CHOLESTASIS (PFIC)	228
ALAGILLE SYNDROME (AKA ARTERIOHEPATIC DYSPLASIA)	228
IDIOPATHIC NEONATAL HEPATITIS.....	228
VIRAL HEPATITIS.....	228
GILBERT'S SYNDROME (AKA GILBERTS SYNDROME)	229
CRIGLER-NAJJAR SYNDROME	229
DUBIN JOHNSON SYNDROME.....	230
REYE'S SYNDROME (AKA REYES SYNDROME)	230
(DOUBLE TAKE) WILSON'S DISEASE	230
CHOLECYSTITIS 	231
CHOLELITHIASIS	231
ICTERUS.....	231
CAUSES OF ABDOMINAL DISCOMFORT & PAIN	231
CLASSIC FUNCTIONAL ABDOMINAL PAIN OF CHILDHOOD	231
CONSTIPATION.....	231
FECAL OVERFLOW ENCOPRESIS.....	231
HELICOBACTER PYLORI.....	232
NSAID-INDUCED DYSPEPSIA, ULCERS, AND EROSIIVE GASTRITIS.....	232
EROSIVE GASTRITIS AKA EROSIIVE GASTROPATHY.....	232
NON-EROSIVE GASTRITIS	232
NON-ULCER DYSPEPSIA.....	232
ZOLLINGER-ELLISON SYNDROME.....	232
INFANTILE GASTROESOPHAGEAL REFLUX (GERD)	233
EOSINOPHILIC ESOPHAGITIS.....	233
(DOUBLE TAKE) IRRITABLE BOWEL SYNDROME (IBS)	233
INFLAMMATORY BOWEL DISEASE (IBD) – CROHN'S AND ULCERATIVE COLITIS	233

APPENDICITIS	233
PANCREATITIS	234
INTUSSUSCEPTION.....	234
(DOUBLE TAKE) GIARDIA	234
ABDOMINAL PAIN PEARL	234
CAUSES OF DIARRHEA	235
CHRONIC NONSPECIFIC DIARRHEA.....	235
(DOUBLE TAKE) LACTOSE INTOLERANCE (AKA LACTASE DEFICIENCY).....	235
BACTERIAL OVERGROWTH	235
CELIAC DISEASE (AKA CELIAC SPRUE).....	235
INFECTIOUS DIARRHEAL ILLNESSES.....	235
CAUSES OF CONSTIPATION	236
FUNCTIONAL CONSTIPATION.....	236
(DOUBLE TAKE) IRRITABLE BOWEL SYNDROME (IBS)	236
CONGENITAL HYPOTHYROIDISM.....	236
CYSTIC FIBROSIS (CF)	236
HIRSCHSPRUNG DISEASE.....	236
MECONIUM ILEUS.....	236
CAUSES OF VOMITING.....	237
GASTROESOPHAGEAL REFLUX DISEASE (GERD).....	237
PYLORIC STENOSIS.....	237
ANTRAL WEB.....	237
ESOPHAGEAL WEB.....	237
ACHALASIA.....	238
VOLVULUS	238
ANNULAR PANCREAS.....	238
CYCLIC VOMITING.....	238
RUMINATION	239
BILIOUS EMESIS IN A NEWBORN	239
DOUBLE BUBBLE.....	239
VOMITING PEARLS	239
GI BLEEDING.....	239
GI BLEEDING PEARL.....	239
LOWER GI BLEEDING (LGIB).....	239
PAINLESS RECTAL BLEEDING.....	240
MECKEL'S DIVERTICULUM (AKA MECKELS).....	240
FAMILIAL ADENOMATOUS POLYPOSIS (FAP)	240
MISCELLANEOUS GI CONDITIONS & TERMINOLOGY	241
OMPHALOCELE	241
GASTROSCHISIS	241
NASOGASTRIC TUBE FEEDINGS (NG TUBE FEEDINGS).....	241
ESOPHAGEAL PERFORATION.....	241
TRACHEOESOPHAGEAL FISTULA (TEF) and ESOPHAGEAL ATRESIA (EA).....	241
IMPERFORATE ANUS (AKA ANAL ATRESIA)	242
PERSISTENT CLOACA	242
RECTAL PROLAPSE.....	242
TYPHLITIS (AKA NEUTROPENIC ENTEROCOLITIS).....	242
(DOUBLE TAKE) NECROTIZING ENTEROCOLITIS (NEC).....	242

Chapter 12: PHARMACOLOGY & DRUG PEARLS.....	243
MEDICATION PEAK.....	243
MEDICATION TROUGH	243
MISCELLANEOUS DRUGS.....	243
MISOPROSTOL	243
SUCRALFATE (ALUMINUM HYDROXIDE COMPLEX).....	243
MAGNESIUM SULFATE	243
TERBUTALINE	243
ACE INHIBITORS.....	243
DIAZEPAM	243
METOCLOPRAMIDE & PROMETHAZINE.....	244
BLEOMYCIN	244
VINCRIStINE AND VINBLASTINE.....	244
DOXORUBICIN AND DAUNOMYCIN.....	244
CYCLOPHOSPHAMIDE.....	244
ASPARAGINASE	244
METHOTREXATE (AKA MTX).....	244
MALIGNANT HYPERTHERMIA	244
HEPATIC INDUCERS.....	245
HEPATIC INHIBITORS.....	245
ALTERNATIVE MEDICATIONS.....	245
INTRAUTERINE DRUG EXPOSURES	245
COCAINE EXPOSURE.....	245
HEROIN EXPOSURE.....	246
METHADONE EXPOSURE.....	246
LITHIUM EXPOSURE	246
(DOUBLE TAKE) MAGNESIUM SULFATE INFUSION	246
WARFARIN EXPOSURE	246
ANTI-SEIZURE MEDICATION EXPOSURE.....	246
PHENYTOIN EXPOSURE.....	246
VALPROIC ACID EXPOSURE	247
CARBAMAZEPINE EXPOSURE.....	247
ETHANOL EXPOSURE	247
VITAMIN A (AKA RETINOL) EXPOSURE.....	247
ISOTRETINOIN EXPOSURE.....	247
Chapter 13: OPHTHALMOLOGY.....	248
HORDEOLUM (AKA STYE)	248
CHALAZION	248
CORNEAL ABRASIONS.....	248
HYPHEMA	248
PAPILLEDEMA.....	248
PAPILLITIS	248
VIRAL CONJUNCTIVITIS	249
BACTERIAL CONJUNCTIVITIS.....	249
ALLERGIC CONJUNCTIVITIS.....	249
PRESEPTAL CELLULITIS.....	249
ORBITAL CELLULITIS.....	249
CATARACTS.....	249

MYOPIA.....	249
HYPEROPIA.....	249
VISION SCREENING.....	250
VISUAL ACUITY BY AGE.....	250
VISION SYMMETRY.....	250
STRABISMUS.....	250
PSEUDOSTRABISMUS.....	250
AMBLYOPIA.....	250
ESOTROPIA.....	250
EXOTROPIA.....	251
NYSTAGMUS.....	251
COLOR VISION.....	251
CORNEAL LIGHT REFLEX TEST.....	251
COVER TEST.....	251
Chapter 14: GENETICS & INHERITED DISEASES	252
AUTOSOMAL DOMINANT DISORDERS.....	252
AUTOSOMAL DOMINANT DISORDERS.....	252
AUTOSOMAL DOMINANT MNEMONIC.....	252
WAARDENBURG SYNDROME.....	254
APERT SYNDROME (AKA APERT'S OR APERTS SYNDROME).....	254
NAIL PATELLA SYNDROME.....	255
NOONAN SYNDROME (AKA NOONAN'S SYNDROME).....	255
ACHONDROPLASIA (AKA DWARFISM).....	255
PEUTZ-JEGHERS SYNDROME (AKA HEREDITARY INTESTINAL POLYPOSIS).....	256
GARDNER SYNDROME (AKA GARDNER'S SYNDROME).....	256
(DOUBLE TAKE) RETINOBLASTOMA.....	256
OTHER AUTOSOMAL DOMINANT DISORDERS.....	256
AUTOSOMAL RECESSIVE DISORDERS.....	257
AUTOSOMAL RECESSIVE (AR) DISORDERS PEARLS.....	257
AUTOSOMAL RECESSIVE MNEMONIC.....	257
JOHANSON-BLIZZARD SYNDROME.....	258
X-LINKED DISORDERS.....	258
X-LINKED DOMINANT DISORDERS.....	258
FAMILIAL HYPOPHOSPHATEMIC RICKETS.....	258
AICARDI SYNDROME.....	258
(DOUBLE TAKE) ALPORT SYNDROME (AKA ALPORT'S SYNDROME).....	258
FRAGILE X SYNDROME.....	259
X-LINKED RECESSIVE DISORDERS.....	259
PEARLS.....	259
(DOUBLE TAKE) CHRONIC GRANULOMATOUS DISEASE (CGD) = SERRATIA.....	260
(DOUBLE TAKE) DUCHENNE MUSCULAR DYSTROPHY (DMD).....	260
(DOUBLE TAKE) GLUCOSE-6-PHOSPHATE DEHYDROGENASE DEFICIENCY (G6PD DEFICIENCY).....	260
(DOUBLE TAKE) HEMOPHILIA A AND HEMOPHILIA B (AKA FACTOR VIII AND FACTOR IX DEFICIENCY).....	261
HUNTER SYNDROME.....	261
ARGININE VASOPRESSIN RESISTANCE (AKA NEPHROGENIC DIABETES INSIPIDUS).....	261
ORNITHINE TRANSCARBAMYLASE.....	261
ANDROGEN INSENSITIVITY SYNDROME (AKA TESTICULAR FEMINIZATION).....	261







(DOUBLE TAKE) WISKOTT-ALDRICH SYNDROME	261
TRISOMY DISORDERS.....	262
DOWN SYNDROME (AKA DOWN'S SYNDROME).....	262
TRISOMY 18 (AKA EDWARDS SYNDROME)	264
TRISOMY 13 (AKA PATAU SYNDROME).....	264
MISCELLANEOUS GENETIC FINDINGS & DISORDERS.....	264
TERMINOLOGY.....	264
CLEFT DISORDERS.....	264
WILLIAMS SYNDROME (AKA incorrectly as WILLIAM'S SYNDROME).....	265
HOLT ORAM SYNDROME	266
CRI-DU-CHAT SYNDROME (AKA 5p-, 5p minus or 5p DELETION SYNDROME)	266
CROUZON SYNDROME (AKA CRANIOFACIAL DYSOSTOSIS).....	266
ANGELMAN SYNDROME (AKA ANGELMAN'S SYNDROME)	266
PRADER-WILLI SYNDROME (AKA PRADER WILLI SYNDROME).....	267
LAURENCE-MOON SYNDROME.....	267
BECKWITH-WIEDEMANN SYNDROME	268
 (DOUBLE TAKE) KLIPPEL-TRENAUNAY SYNDROME	268
PROTEUS SYNDROME	268
PIERRE-ROBIN SYNDROME (AKA PIERRE-ROBIN SEQUENCE).....	268
CHARGE SYNDROME.....	269
COCKAYNE SYNDROME.....	269
AUTISM SPECTRUM DISORDER.....	269
RETT SYNDROME (AKA RETT'S SYNDROME)	270
(DOUBLE TAKE) KLINEFELTER SYNDROME (AKA KLINEFELTER'S).....	270
(DOUBLE TAKE) MARFAN SYNDROME (AKA MARFANS SYNDROME).....	270
EHLERS-DANLOS SYNDROME	271
(DOUBLE TAKE) HOMOCYSTINURIA.....	271
(DOUBLE TAKE) TURNER SYNDROME (AKA TURNERS)	271
(DOUBLE TAKE) RUSSELL-SILVER SYNDROME (AKA SILVER RUSSELL SYNDROME).....	272
POTTER'S SYNDROME.....	272
(DOUBLE TAKE) PRUNE BELLY SYNDROME.....	272
GENETIC TESTING	273
MISCELLANEOUS ABNORMALITIES OF FINGERS AND TOES	273



Chapter 15: HEMATOLOGY & ONCOLOGY 274




PEDIATRIC LEUKEMIAS	274
ACUTE <u>LYMPHOCYTIC</u> LEUKEMIA (ALL) (AKA ACUTE LYMPHOBLASTIC LEUKEMIA).....	274
ACUTE MYELOID LEUKEMIA (AML).....	274
CHRONIC MYELOGENOUS LEUKEMIA (CML) & CHRONIC LYMPHOCYTIC LEUKEMIA (CLL)	274
PEDIATRIC LYMPHOMAS.....	275
(DOUBLE TAKE) HODGKIN'S LYMPHOMA.....	275
NON-HODGKIN LYMPHOMA (NHL)	275
BONE TUMORS	276
LONG BONE TUMORS	276
OSTEOGENIC SARCOMA & EWING'S SARCOMA (AKA EWING SARCOMA)	276
OSTEOCHONDROMA	276
OSTEOID OSTEOMA.....	276

OTHER MALIGNANCIES, TUMORS, & SYNDROMES	277
WILMS TUMOR.....	277
(DOUBLE TAKE) RETINOBLASTOMA.....	277
NEUROBLASTOMA.....	277
BRAIN TUMORS.....	278
(DOUBLE TAKE) LANGERHANS CELL HISTIOCYTOSIS (LCH) = HISTIOCYTOSIS X.....	278
RHABDOMYOSARCOMA.....	278
TUMOR LYSIS SYNDROME	278
GRAFT VERSUS HOST DISEASE (GVHD).....	278
CORD COMPRESSION.....	278
ANTERIOR MEDIASTINAL MASS.....	279
RBC BASICS & SOME HEMOGLOBIN FACTS	279
(DOUBLE TAKE) CELL LIFE SPANS.....	279
FETAL & ADULT HEMOGLOBIN STRUCTURE.....	279
NEWBORN ANEMIA	280
RBC MCV.....	280
POLYCYTHEMIA.....	280
PRBC TRANSFUSIONS	280
NORMOCYTIC ANEMIA	280
PHYSIOLOGIC ANEMIA	280
HEMOLYTIC ANEMIAS.....	281
COOMBS TEST PEARLS.....	281
(DOUBLE TAKE) RHESUS DISEASE (AKA RH DISEASE)	281
(DOUBLE TAKE) ABO INCOMPATIBILITY.....	281
TRANSFUSION REACTIONS	281
(DOUBLE TAKE) GLUCOSE-6-PHOSPHATE DEHYDROGENASE DEFICIENCY (G6PD DEFICIENCY).....	282
PYRUVATE KINASE DEFICIENCY.....	283
HEREDITARY SPHEROCYTOSIS.....	283
(DOUBLE TAKE) ERYTHEMA INFECTIONOSUM.....	283
PAROXYSMAL NOCTURNAL HEMOGLOBINURIA (PNH).....	284
SICKLE CELL ANEMIA	284
TRANSIENT ERYTHROBLASTOPENIA OF CHILDHOOD.....	285
ACUTE BLOOD LOSS ANEMIA.....	285
(DOUBLE TAKE) ANEMIA OF CHRONIC DISEASE.....	285
END STAGE RENAL DISEASE (AKA ESRD or RENAL FAILURE).....	285
PEARLY REMINDERS.....	285
MICROCYTIC ANEMIA.....	286
MICROCYTIC ANEMIA DEFINITION.....	286
IRON DEFICIENCY ANEMIA.....	286
(DOUBLE TAKE) ANEMIA OF CHRONIC DISEASE.....	286
THALASSEMIAS.....	286
ALPHA THALASSEMIA.....	286
BETA THALASSEMIA.....	287
(DOUBLE TAKE) LEAD TOXICITY.....	287
LAB REVIEWS – FERRITIN, TIBC, RDW, & TRANSFERRIN SATURATION.....	288
MACROCYTIC ANEMIA	288
MACROCYTIC ANEMIAS (AKA MEGALOBLASTIC ANEMIA)	288
(DOUBLE TAKE) FOLATE (B9) DEFICIENCY.....	288
(DOUBLE TAKE) B12 DEFICIENCY (AKA CYANOCOBALAMIN DEFICIENCY).....	288

(DOUBLE TAKE) FANCONI  ANEMIA	289
(DOUBLE TAKE) FANCONI  SYNDROME	289
(DOUBLE TAKE) DIAMOND-BLACKFAN ANEMIA 	289
(DOUBLE TAKE) SHWACHMAN-DIAMOND SYNDROME 	290
APLASTIC ANEMIA PEARLS.....	290
PLATELET DISORDERS.....	291
(DOUBLE TAKE) CELL LIFE SPANS.....	291
THROMBOCYTOPENIA.....	291
MATERNAL IMMUNE (OR IDIOPATHIC) THROMBOCYTOPENIC PURPURA.....	291
NEONATAL ALLOIMMUNE THROMBOCYTOPENIA (NAIT).....	291
NEONATAL SEPSIS-INDUCED THROMBOCYTOPENIA.....	291
THROMBOCYTOPENIA AND ABSENT RADIUS (AKA TAR SYNDROME).....	291
IMMUNE THROMBOCYTOPENIC PURPURA (AKA ITP, AKA IDIOPATHIC THROMBOCYTOPENIC PURPURA)	291
(DOUBLE TAKE) HEMOLYTIC UREMIC SYNDROME (HUS) AND THROMBOTIC THROMBOCYTOPENIC PURPURA (TTP).....	292
(DOUBLE TAKE) WISKOTT-ALDRICH SYNDROME	292
(DOUBLE TAKE) KASABACH-MERRITT SYNDROME.....	293
GLANZMANN THROMBASTHENIA	293
BERNARD-SOULIER SYNDROME.....	293
COAGULOPATHY.....	294
VITAMIN K DEPENDENT FACTORS.....	294
COAGULATION CASCADE.....	294
VITAMIN K DEFICIENCY	294
(DOUBLE TAKE) HEMOPHILIA A AND HEMOPHILIA B (AKA FACTOR VIII AND FACTOR IX DEFICIENCY) .	294
BLEEDING CIRCUMCISION.....	294
VON WILLEBRAND DISEASE (AKA VON WILLEBRAND FACTOR DEFICIENCY).....	294
DISSEMINATED INTRAVASCULAR COAGULATION (DIC)	294
FACTOR V LEIDEN	295
ANTIPHOSPHOLIPID ANTIBODY SYNDROME (APS).....	295
PROTEIN C DEFICIENCY	295
Chapter 16: INFECTIOUS DISEASES.....	296
ANTIBIOTICS – A BRIEF REVIEW	296
ANTIBIOTIC AGE PEARLS.....	296
PENICILLIN	296
CLINDAMYCIN	296
VANCOMYCIN, LINEZOLID, AND AMPICILLIN.....	296
CEPHALOSPORINS	297
MACROLIDES.....	297
CARBAPENEMS.....	297
ALBENDAZOLE & PYRANTEL PAMOATE.....	297
METRONIDAZOLE.....	297

COMMON TRANSMISSION-BASED PRECAUTIONS	298
GRAM-POSITIVE ORGANISMS	298
<i>ENTEROCOCCUS FAECALIS</i>	298
<i>LISTERIA MONOCYTOGENES</i>	299
<i>CLOSTRIDIUM TETANI</i> (AKA TETANUS).....	299
(DOUBLE TAKE) <i>CLOSTRIDIUM BOTULINUM</i>	299
(DOUBLE TAKE) <i>CORYNEBACTERIUM DIPHTHERIAE</i>	299
STREPTOCOCCAL INFECTIONS	299
<i>STREPTOCOCCUS</i> (AKA STREP).....	299
<i>ALPHA HEMOLYTIC STREPTOCOCCUS (VIRIDANS AND PNEUMONIAE)</i>	300
<i>BETA HEMOLYTIC STREPTOCOCCUS (AGALACTIAE AND PYOGENES)</i>	300
<i>STREPTOCOCCAL PHARYNGITIS (AKA STREP PHARYNGITIS or STREP THROAT)</i>	300
(DOUBLE TAKE) <i>POSTSTREPTOCOCCAL GLOMERULONEPHRITIS (PSGN, AKA POST INFECTIOUS GLOMERULONEPHRITIS)</i>	300
<i>PERITONSILLAR ABSCESS</i>	301
<i>RETROPHARYNGEAL ABSCESS</i>	301
<i>SCARLET FEVER</i>	301
<i>OCCULT BACTEREMIA</i>	301
<i>PNEUMONIA</i>	302
<i>GROUP B STREPTOCOCCAL SEPSIS (GBS SEPSIS)</i>	302
(DOUBLE TAKE) <i>GBS SCREENING AND PROPHYLAXIS MADE EASY!</i>	302
<i>STAPHYLOCOCCUS AUREUS & EPIDERMIDIS</i>	303
<i>STAPHYLOCOCCUS AND STREPTOCOCCUS COMPARISON CHART</i>	304
GRAM-NEGATIVE ORGANISMS.....	305
<i>RICKETTSIA RICKETTSII and ROCKY MOUNTAIN SPOTTED FEVER (RMSF)</i>	305
<i>ENTEROBACTER</i>	305
(DOUBLE TAKE) <i>BARTONELLA HENSELAE</i>	305
<i>CITROBACTER FREUNDII</i>	305
(DOUBLE TAKE) <i>CHLAMYDIA TRACHOMATIS</i>	306
<i>CHLAMYDIA PNEUMONIAE</i>	306
<i>CHLAMYDIA PSITTACI</i>	306
<i>MYCOPLASMA PNEUMONIAE</i>	307
<i>HAEMOPHILUS INFLUENZAE (AKA H. FLU)</i>	307
<i>BORDETELLA PERTUSSIS (AKA WHOOPING COUGH)</i>	307
<i>PSEUDOMONAS</i>	307
(DOUBLE TAKE) <i>ERYTHEMA CHRONICUM MIGRANS</i>	307
<i>LEPTOSPIROSIS</i>	308
FUNGAL & ATYPICAL BACTERIA.....	308
<i>CRYPTOCOCCUS</i>	309
<i>BLASTOMYCOSIS</i>	309
<i>COCCIDIOIDOMYCOSIS</i>	309
<i>HISTOPLASMOSIS</i>	309
(DOUBLE TAKE) <i>ASPERGILLUS</i>	310
<i>MYCOBACTERIUM TUBERCULOSIS (AKA MTB or TB)</i>	310
<i>PPD READINGS</i>	310
VIRUSES	311
<i>SEVERE ACUTE RESPIRATORY SYNDROME CORONAVIRUS 2 (AKA COVID-19)</i>	311
<i>COXSACKIE VIRUS & ENTEROVIRUS</i>	312
<i>ADENOVIRUS</i>	312

ARBOVIRUS ENCEPHALITIS.....	312
RESPIRATORY SYNCYTIAL VIRUS (RSV).....	312
EPSTEIN-BARR VIRUS (EBV)	313
HUMAN HERPES VIRUS 6 (AKA HHV-6).....	313
(DOUBLE TAKE) HERPES SIMPLEX VIRUS (HSV).....	313
(DOUBLE TAKE) VARICELLA ZOSTER VIRUS (CHICKEN POX)	314
HUMAN IMMUNODEFICIENCY VIRUS (HIV).....	314
(DOUBLE TAKE) RABIES VIRUS.....	315
MEASLES (AKA RUBEOLA).....	315
(DOUBLE TAKE) RUBELLA VIRUS (AKA GERMAN MEASLES)	316
MUMPS VIRUS.....	317
ZIKA VIRUS	317
SARS (SEVERE ACUTE RESPIRATORY SYNDROME).....	317
PARASITES/PROTOZOA	317
ENTAMOEBA HISTOLYTICA (AKA AMEBIASIS).....	317
(DOUBLE TAKE) TRICHOMONAS VAGINALIS.....	318
BABESIOSIS.....	318
CRYPTOSPORIDIUM	318
MALARIA	318
TRYPANOSOMA CRUZI.....	319
TRYPANOSOMA BRUCEI.....	319
WORMS	319
ENTEROBIUS (AKA PINWORMS)	319
(DOUBLE TAKE) ASCARIS LUMBRICOIDES	319
SCHISTOSOMIASIS (SCHISTOSOMA)	320
TAENIA SOLIUM.....	320
TAENIA SAGINATA.....	320
(DOUBLE TAKE) TOXOCARA CANIS.....	320
HOOKWORM	320
CUTANEOUS LARVA MIGRANS.....	321
TRICHURIS.....	321
FILARIASIS.....	321
STRONGYLOIDES.....	321
DIPHYLLOBOTHRUM LATUM	321
INFECTIOUS “SYNDROMES”	321
GROUND GLASS PNEUMONIA.....	321
ADOLESCENT + PNEUMONIA + LOW GRADE FEVER.....	322
SPONTANEOUS BACTERIAL PERITONITIS (SBP).....	322
SECONDARY PERITONITIS.....	322
TOXIC SHOCK SYNDROME (TSS)	322
DENTAL ABSCESS.....	322
(DOUBLE TAKE) FEBRILE INFANT AND SEPTIC WORKUP	322
NEONATAL BACTEREMIA	323
SINUSITIS.....	323
PAROTIDITIS (AKA PAROTITIS)	324
MASTOIDITIS.....	324
OTITIS EXTERNA (AKA SWIMMER’S EAR).....	324
ACUTE AND RECURRENT OTITIS MEDIA.....	324
CHOLESTEATOMA.....	325

CHRONIC OTORRHEA AND RECURRING OTORRHEA.....	325
MENINGITIS, BACTERIAL AND VIRAL	325
TORCH INFECTIONS.....	326
TOXOPLASMA GONDII.....	326
(DOUBLE TAKE) VARICELLA ZOSTER VIRUS (CHICKEN POX)	326
(DOUBLE TAKE) SYPHILIS.....	326
(DOUBLE TAKE) RUBELLA VIRUS (AKA GERMAN MEASLES).....	327
CYTOMEGALOVIRUS (CMV).....	328
CONGENITAL HSV.....	328
(DOUBLE TAKE) BLUEBERRY MUFFIN RASH DIFFERENTIAL DIAGNOSIS.....	328
ACUTE WATERY DIARRHEA.....	328
ROTAVIRUS	329
ADENOVIRUS.....	329
NOROVIRUS.....	329
NORWALK VIRUS.....	329
ESCHERICHIA COLI (E. coli).....	329
SHIGELLA INFECTIONS	329
SALMONELLA.....	330
CAMPYLOBACTER JEJUNI.....	330
STAPHYLOCOCCUS AUREUS AND BACILLUS CEREUS.....	330
YERSINIA ENTEROCOLITICA	331
CLOSTRIDIUM PERFRINGENS.....	331
CLOSTRIDIODES DIFFICILE (AKA C. DIFF)	331
PEARLY DIARRHEA REVIEW.....	331
CHRONIC DIARRHEA.....	332
(DOUBLE TAKE) GIARDIA	332
CHRONIC NONSPECIFIC DIARRHEA (AKA TODDLER'S DIARRHEA).....	332
(DOUBLE TAKE) FOOD PROTEIN INDUCED ENTEROPATHY 	332
(DOUBLE TAKE) FOOD PROTEIN INDUCED PROCTITIS/COLITIS 	333
(DOUBLE TAKE) FOOD PROTEIN INDUCED ENTEROCOLITIS SYNDROME (FPIES) 	333
(DOUBLE TAKE) LACTOSE INTOLERANCE (AKA LACTASE DEFICIENCY).....	333
INTESTINAL LYMPHANGIECTASIA.....	334
FAT AND CARBOHYDRATE MALABSORPTION	334
ACUTE LYMPHADENOPATHY (< 3 WEEKS) IN THE HEAD AND NECK AREA.....	334
STAPHYLOCOCCUS AUREUS AND STREPTOCOCCUS PYOGENES (AKA GAS or STREP PYOGENES)	334
PREAURICULAR LYMPHADENOPATHY.....	334
EMPIRIC TREATMENT.....	334
CHRONIC CERVICAL LYMPHADENOPATHY (> 3 WEEKS)	334
(DOUBLE TAKE) BARTONELLA HENSELAE.....	334
FRANCISELLA TULARENSIS	335
MYCOBACTERIUM TUBERCULOSIS (MTB or TB)	335
ATYPICAL MYCOBACTERIA	335
BRUCELLOSIS.....	335

LYMPHADENOPATHY IN OTHER AREAS.....	335
(DOUBLE TAKE) LYMPHOGRANULOMA VENEREUM SEROVAR.....	335
YERSINIA PESTIS.....	336
NONTENDER LYMPHADENOPATHY.....	336
SPOROTRICHOSIS (AKA ROSE PICKER'S DISEASE).....	336
MYCOBACTERIUM TUBERCULOSIS.....	336
ATYPICAL MYCOBACTERIA	336
(DOUBLE TAKE) HODGKIN'S LYMPHOMA.....	336
MISCELLANEOUS ID RELATED TOPICS.....	337
SPLENECTOMY PATIENTS.....	337
DFA AND ELISA TESTING.....	337
GROWTH MEDIA AND STAINING.....	337
LATEX AGGLUTINATION.....	337
DROPLET PRECAUTIONS.....	337
RETURN-TO-SCHOOL CRITERIA.....	337
(DOUBLE TAKE) APHTHOUS ULCERS.....	337
STACCATO, BARKY, AND PAROXYSMAL COUGH PEARLS.....	338
CROUP, TRACHEITIS, AND EPIGLOTTITIS SUMMARY TABLE.....	339

Chapter 17: VACCINES, IMMUNIZATIONS AND CONTRAINDICATIONS..... 340

PERTINENT CDC LINKS.....	340
STEROIDS AND IMMUNIZATIONS	340
PREMATURITY AND VACCINATIONS.....	340
LIVE VACCINES.....	340
MEASLES, MUMPS, RUBELLA (MMR) AND VARICELLA (VZV) PEARLS.....	341
ROTAVIRUS VACCINE	341
INFLUENZA VACCINATION.....	341
HEPATITIS A VACCINE.....	342
HEPATITIS B VACCINE.....	342
HUMAN PAPILLOMA VIRUS VACCINE (HPV).....	342
MENINGOCOCCAL VACCINE (AKA MENINGOCOCCUS VACCINE).....	342
PREGNANCY AND IMMUNIZATION.....	343
POSTEXPOSURE PROPHYLAXIS.....	343
VACCINE SCHEDULE REMINDERS.....	345
CATCH-UP IMMUNIZATION SCHEDULE PEARLS.....	345
VACCINE CONTRAINDICATIONS	346
CHICKEN OR EGG ALLERGY.....	346
DTaP CONTRAINDICATIONS.....	346
LIVE VACCINE CONTRAINDICATIONS	346
GELATIN ALLERGY	346
NEOMYCIN, POLYMYXIN, AND STREPTOMYCIN ALLERGIES.....	346
ANAPHYLAXIS MANAGEMENT.....	347
THIMEROSAL ALLERGY.....	347
COMPLETE CDC GUIDE.....	347

Chapter 18: INBORN ERRORS OF METABOLISM & MISCELLANEOUS METABOLIC DISORDERS.... 348

INBORN ERRORS OF METABOLISM (IEM) PEARLS.....	349
INBORN ERRORS OF METABOLISM (PEARLS).....	349
ORGANIC ACIDEMIAS (PEARLS).....	349
UREA CYCLE DEFECTS (PEARLS)	349

FATTY ACID METABOLISM DISORDERS (PEARLS).....	349
STORAGE DISEASES (PEARLS).....	349
MITOCHONDRIAL DISORDERS (PEARLS)	349
AMINO ACIDOPATHIES (PEARLS)	349
GALACTOSEMIA (PEARLS).....	350
HYPERGLYCINEMIA (PEARLS).....	350
NEWBORN SCREEN (NBS)	350
AMMONIA LEVEL	350
URINARY REDUCING SUBSTANCES	350
INHERITANCE PATTERN	350
ORGANIC ACIDEMIAS	350
ORGANIC ACIDEMIAS OVERVIEW	350
ISOVALERIC ACIDEMIA.....	351
GLUTARIC ACIDEMIA	351
METHYLMALONIC ACIDEMIA & PROPIONIC ACIDEMIA.....	351
UREA CYCLE DEFECTS	352
UREA CYCLE SUMMARY	352
UREA CYCLE DEFECTS INCLUDE.....	352
ORNITHINE TRANSCARBAMYLASE DEFICIENCY.....	353
CITRULLINEMIA	353
ARGININOSUCCINIC ACIDURIA.....	353
UREA CYCLE LAB SUMMARY (TABLE)	353
MITOCHONDRIAL DISORDERS.....	353
FATTY ACID OXIDATION DISORDERS.....	353
GLYCOGEN STORAGE DISEASES	354
GSD I (AKA VON GIERKE'S DISEASE)	354
GSD II (AKA POMPE or POMPE'S DISEASE).....	354
GLYCOGEN STORAGE DISEASE DUE TO ALDOLASE A DEFICIENCY	355
AMINOACIDOPATHIES.....	355
PHENYLKETONURIA (PKU).....	355
ALKAPTONURIA (AKA ALCAPTONURIA).....	355
MAPLE SYRUP URINE DISEASE (MSUD AKA BRANCHED-CHAIN KETOACIDURIA)	356
(DOUBLE TAKE) HOMOCYSTINURIA.....	356
TYROSINEMIA (TYPE I).....	356
CARBOHYDRATE METABOLISM DISORDERS.....	356
DISORDERS OF CARBOHYDRATE METABOLISM	356
GALACTOSEMIA (AKA GALACTOSE-1-PHOSPHATE URIDYLTRANSFERASE DEFICIENCY or GALT DEFICIENCY).....	357
HEREDITARY FRUCTOSE INTOLERANCE.....	357
LYSOSOMAL STORAGE DISEASES	357
MUCOPOLYSACCHARIDOSES (MPS).....	357
SPHINGOLIPIDOSES	358
TAY-SACHS DISEASE.....	358
GAUCHER DISEASE (AKA GAUCHER'S DISEASE)	358
FABRY DISEASE (AKA FABRY'S DISEASE)	359
NIEMANN-PICK DISEASE.....	359
MISCELLANEOUS DISORDERS AND PEARLS.....	359
HYPOGLYCEMIA DIFFERENTIAL.....	359

INFANT OF A DIABETIC MOTHER (IDM).....	360
PURINE AND PYRIMIDINE DISORDERS.....	360
(DOUBLE TAKE) WILSON'S DISEASE.....	360
MENKES KINKY HAIR SYNDROME (AKA MENKES SYNDROME).....	361
SMITH-LEMLI-OPITZ SYNDROME.....	361
CHERRY RED SPOT DIFFERENTIAL.....	361
GENERAL IEM PEARLS & RECAPS.....	362

Chapter 19: ACID-BASE DISORDERS 363


A GUIDE TO CALCULATIONS AND SHORTCUTS FOR ACID BASE DISORDERS.....	363
THE ULTIMATE ABG CALCULATOR BIBLE!.....	363
ABG FUNDAMENTALS AND TERMINOLOGY.....	363
ABG & CHEMISTRY NUMBERS – THE BASICS.....	363
ABG RULES FOR A RESPIRATORY ACIDOSIS OR RESPIRATORY ALKALOSIS.....	364
ABG RULES FOR A METABOLIC ACIDOSIS.....	365
ABG & CHEMISTRY PEARLS.....	366
ABG & CHEMISTRY SHORTCUTS.....	366
ACID-BASE DISORDERS & PEARLS.....	367
ACIDOSIS.....	367
ANION GAP.....	367
ANION GAP METABOLIC ACIDOSIS.....	367
NON-ANION GAP METABOLIC ACIDOSIS.....	367
RENAL TUBULAR ACIDOSIS (RTA).....	368
RENAL TUBULAR ACIDOSIS TYPE I (RTA I, AKA CLASSIC DISTAL RTA).....	368
RENAL TUBULAR ACIDOSIS TYPE II (RTA II, AKA PROXIMAL RTA).....	368
RENAL TUBULAR ACIDOSIS TYPE IV (RTA IV).....	369
METABOLIC ALKALOSIS.....	369
RESPIRATORY ACIDOSIS.....	370
RESPIRATORY ALKALOSIS.....	370

Chapter 20: FLUIDS & ELECTROLYTES 371

MAINTENANCE IV FLUIDS (MIVF) AND DEHYDRATION.....	371
MAINTENANCE IV FLUIDS (MIVF).....	371
DEHYDRATION.....	371
GASTROENTERITIS.....	372
HEAT STROKE.....	372
HEAT EXHAUSTION.....	372
ELECTROLYTES.....	372
(DOUBLE TAKE) HYPERCALCEMIA.....	372
(DOUBLE TAKE) HYPOCALCEMIA.....	373
HYPOKALEMIA.....	374
HYPERKALEMIA.....	374
HYPONATREMIA.....	375
HYPERNATREMIA.....	377
ARGININE VASOPRESSIN DEFICIENCY AND RESISTANCE (AKA DIABETES INSIPIDUS).....	377

Chapter 21: NEPHROLOGY 378

THE URINALYSIS.....	378
MICROSCOPIC HEMATURIA.....	378
PROTEINURIA.....	378

WBC CASTS.....	379
RBC CASTS.....	379
URINARY CRYSTAL IDENTIFICATION.....	379
UROLOGY, OBSTRUCTIONS, AND MASSES.....	379
URETEROPELVIC JUNCTION OBSTRUCTION (UPJ OBSTRUCTION).....	379
VESICoureTERAL REFLUX (VUR).....	380
POSTERIOR URETHRAL VALVES (PUV).....	380
ABDOMINAL MASS AT BIRTH.....	380
MULTICYSTIC DYSPLASTIC KIDNEY (MCDK).....	380
URETEROCELE.....	381
INFECTIONS.....	381
URINARY TRACT INFECTION (UTI or PYELONEPHRITIS).....	381
(DOUBLE TAKE) POSTSTREPTOCOCCAL GLOMERULONEPHRITIS (PSGN, AKA POST INFECTIOUS GLOMERULONEPHRITIS).....	382
(DOUBLE TAKE) HEMOLYTIC UREMIC SYNDROME (HUS) AND THROMBOTIC THROMBOCYTOPENIC PURPURA (TTP).....	382
INTRINSIC RENAL DISEASE.....	383
RENAL FAILURE.....	383
OLIGURIA.....	383
RENOVASCULAR DISEASE.....	383
ACUTE INTERSTITIAL NEPHRITIS.....	383
GLOMERULONEPHRITIS.....	384
IGA NEPHROPATHY.....	384
MEMBRANOPROLIFERATIVE GLOMERULONEPHRITIS (MPGN).....	384
RAPIDLY PROGRESSIVE GLOMERULONEPHRITIS (RPGN).....	384
NEPHROTIC SYNDROME.....	384
MEDULLARY SPONGE DISEASE.....	385
AUTOSOMAL DOMINANT POLYCYSTIC KIDNEY DISEASE (ADPKD).....	385
AUTOSOMAL DOMINANT TUBULOINTERSTITIAL KIDNEY DISEASE (ADTKD).....	385
(DOUBLE TAKE) FANCONI <u>SYNDROME</u> 	385
(DOUBLE TAKE) FANCONI <u>ANEMIA</u>	386
(DOUBLE TAKE) ALPORT SYNDROME (AKA ALPORT'S SYNDROME).....	386
Chapter 22: STATISTICS.....	387
STATISTICS OVERVIEW.....	387
CALCULATIONS OVERVIEW.....	387
STATISTICS TERMINOLOGY RELATED TO DIAGNOSTIC TESTS.....	387
SENSITIVITY = $TP/(TP+FN)$	388
SPECIFICITY = $TN/(TN+FP)$	388
LIKELIHOOD RATIO = $SENSITIVITY/(1-SPECIFICITY)$	388
POSITIVE PREDICTIVE VALUE = $TP/(TP+FP)$	389
NEGATIVE PREDICTIVE VALUE = $TN/(TN+FN)$	389
NULL HYPOTHESIS.....	389
P VALUE.....	389
SIGNIFICANT RESULTS.....	389
TYPE I ERROR.....	389
TYPE II ERROR.....	389
PREVALENCE.....	389

INCIDENCE.....	390
SAMPLE SIZE.....	390
NUMBER NEEDED TO TREAT (NNT).....	390
RELATIVE RISK.....	390
ODDS RATIO.....	390
KAPLAN MEIER CURVE (AKA KAPLAN-MEIER ESTIMATOR).....	390
VALIDITY HIERARCHY.....	390
SYSTEMATIC REVIEW AND META-ANALYSIS.....	391
RANDOMIZED CONTROLLED TRIALS.....	391
COHORT STUDIES.....	391
CASE-CONTROL STUDIES.....	392
CROSS-SECTIONAL STUDIES.....	393
CASE STUDIES.....	394

Chapter 23: NEUROLOGY 395

NEUROLOGIC TESTS, PARALYSES & PALSIES.....	395
SOMATOSENSORY EVOKED POTENTIALS (SEP).....	395
NERVE CONDUCTION VELOCITIES.....	395
ELECTROMYOGRAM (EMG).....	395
MAGNETIC RESONANCE IMAGING (MRI).....	395
COMPUTER TOMOGRAPHY SCAN (CT SCAN).....	395
SPINAL ULTRASOUND.....	395
ERB'S PALSY AND KLUMPKE PALSY.....	395
HORNER SYNDROME (AKA HORNER'S).....	396
SPASTIC CEREBRAL PALSY (CP).....	396
ATHETOID CEREBRAL PALSY.....	396
WEAKNESS AND PARALYSIS PEARL.....	396
GUILLAIN-BARRE SYNDROME (GBS, AKA ACUTE INFLAMMATORY DEMYELINATING POLYNEUROPATHY or AIDP).....	396
ACUTE FLACCID MYELITIS (AFM).....	397
(DOUBLE TAKE) TICK PARALYSIS.....	397
(DOUBLE TAKE) TODD PARALYSIS (AKA TODD'S PARALYSIS).....	397
TRANSVERSE MYELITIS.....	397
EPIDURAL ABSCESS OF THE SPINE.....	398
MYASTHENIA GRAVIS (MG).....	398
(DOUBLE TAKE) CLOSTRIDIUM BOTULINUM.....	398
(DOUBLE TAKE) CORYNEBACTERIUM DIPHTHERIAE.....	398
INCREASED INTRACRANIAL PRESSURE AND HEADACHES.....	399
INCREASED INTRACRANIAL PRESSURE (ICP).....	399
LUMBAR PUNCTURE.....	399
DANDY WALKER MALFORMATION.....	399
(DOUBLE TAKE) PSEUDOTUMOR CEREBRI (AKA IDIOPATHIC INTRACRANIAL HYPERTENSION or BENIGN INTRACRANIAL HYPERTENSION).....	400
TENSION HEADACHES.....	400
MIGRAINE HEADACHES.....	400
OMINOUS HEADACHES.....	400
MOVEMENT DISORDERS.....	401
(DOUBLE TAKE) DYSTONIC REACTIONS.....	401
TICS.....	401

TOURETTE SYNDROME (AKA TOURETTE'S SYNDROME)	401
STEREOTYPY	401
CHOREA	401
SYDENHAM CHOREA (AKA SYDENHAM'S CHOREA)	401
HUNTINGTON DISEASE (AKA HUNTINGTON'S DISEASE)	402
DYSTROPHIES	402
SPINAL MUSCULAR ATROPHY TYPE I (AKA WERDNIG-HOFFMANN DISEASE)	402
(DOUBLE TAKE) DUCHENNE MUSCULAR DYSTROPHY (DMD)	402
MYOTONIC DYSTROPHY	402
SENSORY NEUROPATHIES	403
SEIZURES	403
FIRST-TIME SEIZURE	403
EPILEPSY AND SEIZURE PRECAUTIONS AND EDUCATION	403
EMERGENCY ROOM PEDIATRIC SEIZURE MANAGEMENT	403
SEIZURE TERMINOLOGY	404
SIMPLE PARTIAL SEIZURES	404
COMPLEX PARTIAL SEIZURES	404
BENIGN CHILDHOOD EPILEPSY WITH CENTROTEMPORAL SPIKES (AKA BECTS, BCECTS, BENIGN EPILEPSY OF CHILDHOOD, BENIGN ROLANDIC EPILEPSY)	404
JUVENILE MYOCLONIC EPILEPSY	404
ABSENCE SEIZURES	405
TONIC-CLONIC SEIZURE	405
NEONATAL SEIZURES	405
INFANTILE SPASMS	405
FEBRILE SEIZURE	405
BREAKTHROUGH SEIZURE	406
STATUS EPILEPTICUS	406
(DOUBLE TAKE) TODD PARALYSIS (AKA TODD'S PARALYSIS)	406
ATAXIA AND RELATED CONDITIONS	406
ACUTE CEREBELLAR ATAXIA	406
(DOUBLE TAKE) ATAXIA TELANGIECTASIA	406
FRIEDREICH ATAXIA (AKA FRIEDREICH'S ATAXIA)	407
BENIGN POSITIONAL VERTIGO (BPV)	407
PERILYMPHATIC FISTULA	407
MISCELLANEOUS NEUROLOGIC CONDITIONS AND FINDINGS	407
JAW CLONUS AND BILATERAL ANKLE CLONUS	407
UPPER MOTOR NEURON DISEASE	407
LOWER MOTOR NEURON DISEASE	408
HEAD TRAUMA	408
NEUROCARDIOGENIC SYNCOPE	408
CEREBROVASCULAR ACCIDENT (AKA CVA or STROKE)	408
INTELLECTUAL DISABILITY	408
EPIDURAL HEMATOMA	408
SUBDURAL HEMATOMA (SDH)	408
SUBARACHNOID HEMORRHAGE	409
MENINGITIS PEARLS	409
SPINA BIFIDA	409
CHIARI MALFORMATION (ARNOLD-CHIARI MALFORMATION)	410

Chapter 24: ORTHOPEDICS AND SPORTS MEDICINE 411

EPIPHYSIS, PHYSIS, AND METAPHYSIS.....	411
SALTER HARRIS FRACTURES.....	411
TORUS FRACTURE (AKA BUCKLE FRACTURE).....	412
GREENSTICK FRACTURE	412
DISTAL HUMERAL FRACTURES.....	412
DISLOCATED SHOULDER.....	412
LATERAL EPICONDYLITIS (TENNIS ELBOW)	413
KNEE INJURIES.....	413
OSTEOGENESIS IMPERFECTA.....	413
VALGUS DEFORMITY	413
VARUS.....	413
GENU VALGUM (AKA KNOCK-KNEES)	414
GENU VARUM (AKA BOWED LEGS)	414
RICKETS.....	414
BLOUNT DISEASE.....	414
INTOEING.....	414
CLUB FOOT (AKA TALIPES EQUINOVARUS or EQUINOVARUS DEFORMITY).....	415
PES CAVUS.....	415
PES PLANUS.....	415
SLIPPED CAPITAL FEMORAL EPIPHYSIS (SCFE)	415
LEGG-CALVE-PERTHES DISEASE.....	416
OSGOOD SCHLATTER DISEASE.....	416
OSTEOCHONDRITIS DISSECANS.....	416
SCOLIOSIS	416
SPONDYLOLYSIS.....	416
SPONDYLOLISTHESIS.....	417
SUBLUXED RADIAL HEAD (AKA NURSEMAID'S ELBOW).....	417
DEVELOPMENTAL DYSPLASIA OF THE HIP (DDH).....	417
TOXIC SYNOVITIS (AKA TRANSIENT SYNOVITIS OF THE HIP).....	418
SEPTIC ARTHRITIS	418
OSTEOMYELITIS.....	418
STRAINS.....	418
SPRAINS.....	419
ROTATOR CUFF TEARS.....	419
ANTERIOR CRUCIATE LIGAMENT TEAR (ACL TEAR).....	419
JOINT HYPERMOBILITY	419
COMPARTMENT SYNDROME	419
ACROMIOCLAVICULAR JOINT SEPARATION (AC JOINT SEPARATION).....	419
SPORTS INJURY PEARL	420
CONGENITAL TORTICOLLIS	420
POLYDACTYLY	420

Chapter 25: RHEUMATOLOGY 421

ARTHRITIC CONDITIONS.....	421
ARTHROCENTESIS (JOINT ASPIRATION) PEARLS	421
JUVENILE IDIOPATHIC ARTHRITIS (JRA, JIA)	421
SYSTEMIC LUPUS ERYTHEMATOSUS (SLE).....	422
(DOUBLE TAKE) NEONATAL LUPUS	423
DRUG INDUCED LUPUS	423

JUVENILE ANKYLOSING SPONDYLITIS.....	423
REACTIVE ARTHRITIS (AKA JUVENILE REITER SYNDROME).....	423
BEHCET SYNDROME (AKA BEHCET'S DISEASE, BEHÇET SYNDROME, ETC.)	423
PSORIATIC JUVENILE IDIOPATHIC ARTHRITIS (psJIA)	423
NON-ARTHRITIC CONDITIONS.....	424
(DOUBLE TAKE) DERMATOMYOSITIS.....	424
IMMUNOGLOBULIN A VASCULITIS (FORMERLY KNOWN AS HENoch-SCHONLEIN PURPURA).....	424
SARCOIDOSIS.....	424
SJOGREN SYNDROME (AKA SJOGREN'S SYNDROME).....	424
RAYNAUD'S PHENOMENON (AKA RAYNAUDS)	425
GRANULOMATOSIS WITH POLYANGIITIS (AKA WEGENER'S GRANULOMATOSIS)	425
FIBROMYALGIA	425
Chapter 26: PULMONOLOGY	426
CYSTIC FIBROSIS AND NASAL POLYPS.....	426
CYSTIC FIBROSIS (CF).....	426
STRIDOR.....	427
INSPIRATORY STRIDOR.....	427
EXPIRATORY STRIDOR	427
BIPHASIC STRIDOR.....	428
CONGENITAL PULMONARY DISEASE.....	428
CONGENITAL DIAPHRAGMATIC HERNIA.....	428
CONGENITAL PULMONARY MALFORMATIONS	428
PERSISTENT PULMONARY HYPERTENSION	429
CHOANAL ATRESIA	429
ASTHMA.....	429
EXERCISE-INDUCED ASTHMA.....	429
PEDIATRIC ASTHMA CLASSIFICATION	429
RHINOVIRUS.....	430
RESPIRATORY SYNCYTIAL VIRUS (RSV).....	430
DUST MITES.....	430
BETA BLOCKERS AND ASPIRIN	431
ADULT ASTHMA.....	431
ASTHMA DIFFERENTIAL	431
PNEUMONIA	431
RECURRENT PNEUMONIA.....	431
ATAXIA TELANGIECTASIA.....	431
X-LINKED AGAMMAGLOBULINEMIA (AKA BRUTON'S AGAMMAGLOBULINEMIA).....	431
SEVERE COMBINED IMMUNODEFICIENCY (SCID).....	431
HYPER-IGM SYNDROME (AKA HYPER IGM SYNDROME).....	431
HYPER-IGE SYNDROME (AKA HYPER IGE SYNDROME).....	432
COMMON VARIABLE IMMUNE DEFICIENCY (CVID)	432
(DOUBLE TAKE) ASPERGILLUS.....	432
CRYPTOGENIC ORGANIZING PNEUMONIA (Formerly known as BRONCHIOLITIS OBLITERANS WITH ORGANIZING PNEUMONIA, or BOOP).....	432
INTRAPULMONARY SEQUESTRATION	432
MIGRATING PNEUMONIAS.....	432
(DOUBLE TAKE) TOXOCARA CANIS.....	432

(DOUBLE TAKE) ASCARIS LUMBRICOIDES	433
MISCELLANEOUS PULMONARY DEFINITIONS AND CONDITIONS	433
VOCAL FREMITUS	433
COR PULMONALE	433
TACHYPNEA	433
HYPERCAPNIA (AKA HYPERCAPNEA)	434
BRIEF RESOLVED UNEXPLAINED EVENT (BRUE)	434
ALPHA-1-ANTITRYPSIN DEFICIENCY	434
RESPIRATORY DISTRESS SYNDROME (RDS)	434
TRANSIENT TACHYPNEA OF THE NEWBORN (TTN)	434
NASAL FOREIGN BODY	435
FOREIGN BODY ASPIRATION	435
VOCAL CORD NODULES	435
CHRONIC COUGH	435
PNEUMOTHORAX	435
FLAIL CHEST	435
BRONCHIECTASIS	435
HIGH-YIELD CHEST X-RAY FINDINGS AND PEARLS	436
PULMONARY VASCULAR CONGESTION	436
PATCHY AREAS OF DIFFUSE ATELECTASIS	436
FLUID IN HORIZONTAL FISSURE	436
UNDERINFLATED CHEST X-RAY	436
DIFFUSE OPACITIES WITH CYSTIC AREAS	436
Chapter 27: PSYCHIATRY AND SOME SOCIAL ISSUES	437
ATTENTION DEFICIT DISORDER (AKA ADD, ADHD, and ATTENTION DEFICIT HYPERACTIVE DISORDER)	437
LEARNING DISABILITIES	437
SCHOOL PHOBIA	437
DEATH RESPONSE IN CHILDREN	437
DEPRESSION	438
OPPOSITIONAL DEFIANT DISORDER	438
CONDUCT DISORDER	438
DIVORCE	438
ADOPTION	438
FOSTER CARE	439
PARENTAL ADJUSTMENT TO A CHILD WITH MALFORMATIONS	439
CHRONICALLY ILL FAMILY MEMBER	439
CONVERSION DISORDER	439
SOMATIZATION	439
PSYCHOSOMATIC	439
BREATH-HOLDING SPELLS	439
NIGHT TERRORS	440
NIGHTMARES	440
CHILD DISCIPLINE	440
THUMB SUCKING	440
IMPACT OF MEDIA ON CHILDREN	440
CHILD ABUSE	441
PHYSICAL ABUSE	441

COMMON ABUSE-RELATED FRACTURES.....	441
BUCKET HANDLE FRACTURES AND CORNER FRACTURES.....	441
RETINAL HEMORRHAGE (AKA SHAKEN BABY SYNDROME).....	441
SEXUAL ABUSE AND ASSAULT.....	441
PSYCHOLOGICAL ABUSE.....	441
NEGLECT.....	442
CAREGIVER-FABRICATED ILLNESS (AKA MUNCHAUSEN SYNDROME BY PROXY) (AKA FACTITIOUS DISORDER).....	442
HEALTH CARE PROVIDER ROLE IN CHILD ABUSE AND NEGLECT.....	442
MISCELLANEOUS TIDBITS AND PEARLS.....	442
TONGUE TIED (AKA TONGUE TIE).....	442
ENURESIS AND ENCOPRESIS.....	442
CARING FOR TRANSGENDER YOUTH (AKA GENDER DYSPHORIA).....	443
Chapter 28: ETHICS IN PEDIATRICS	444
MAIN PRINCIPLES AND TERMS.....	444
AUTONOMY.....	444
BENEFICENCE.....	444
CONSENT.....	445
PERMISSION.....	445
RELIGIOUS, CULTURAL, AND PERSONAL OBJECTIONS.....	445
ASSENT.....	445
TRUTHFULNESS.....	446
CONFIDENTIALITY.....	446
PHYSIOLOGIC FUTILITY.....	446
QUALITATIVE FUTILITY.....	447
SPECIFIC ISSUES.....	447
IMPAIRED NEUROLOGIC STATES.....	447
DO NOT RESUSCITATE (DNR; DNAR) ORDERS.....	448
EUTHANASIA AND PHYSICIAN ASSISTED SUICIDE.....	448
OTHER ISSUES.....	448
Chapter 29: PATIENT SAFETY AND QUALITY IMPROVEMENT	450
SYSTEMS APPROACH.....	450
TEAM APPROACH.....	450
CULTURE OF TRANSPARENCY.....	450
NON-PUNITIVE APPROACH.....	451
LEARNING FROM ERRORS.....	451
QUALITY IMPROVEMENT.....	451
DATA DRIVEN APPROACH.....	451
MEDICAL ERROR.....	452
SENTINEL EVENT.....	452
PREVENTABLE ADVERSE EVENT.....	452
NON-PREVENTABLE ADVERSE EVENT.....	452
NEAR MISS (AKA CLOSE CALL).....	452
PSYCHOLOGY OF CHANGE.....	452
CYCLE OF CONTINUOUS IMPROVEMENT.....	453
Chapter 30: PEDIATRIC LAB VALUES	455
COMPLETE BLOOD COUNT (CBC).....	455

<i>COAGULATION STUDIES</i>	455
<i>NORMAL PEDIATRIC ELECTROLYTE VALUES</i>	455
<i>ALKALINE PHOSPHATASE</i>	456
<i>GAMMA-GLUTAMYL TRANSPEPTIDASE (GGT)</i>	456
<i>DIRECT BILIRUBIN (AKA CONJUGATED BILIRUBIN)</i>	456
Chapter 31: PEDIATRIC VITAL SIGNS	457
<i>PEDIATRIC RESPIRATORY RATES</i>	457
<i>PEDIATRIC HEART RATE OR PULSE</i>	457
<i>PEDIATRIC BLOOD PRESSURE</i>	457
Index	460



Hope You've Enjoyed It!
A Few [CRITICAL] Reminders

ARE YOU TAKING THE INITIAL CERTIFICATION EXAM? TAKE THE RISK CALCULATOR!

This exam is MUCH HARDER than the USMLE exams. In order to understand how many time you should go through the material, and in order to understand HOW to go through the material, you go through the **PBR RISK CALCULATOR** now and find out if you are at low, moderate or high risk of failing the exam. Then you'll know if you should go through the PBR Core Study Guide and the Q&A Book a minimum of 3 times or 5 times. **For low-risk test-takers**, AT LEAST 3 rounds of the material is recommended. **For high-risk test-takers**, AT LEAST 5 rounds of the material is recommended AND a strong focus on test-taking strategy. Your risk profile depends on many factors (e.g., exam history, scores on in-training exams, your residency program, and more). Visit www.pbrlinks.com/RISK-CALCULATOR and go through the **PBR RISK CALCULATOR** now.

“LOW-ISH” USMLE SCORES? FAILED A BOARD EXAM? WORK ON TECHNIQUE!

Seriously, seriously, SERIOUSLY! This exam can wreak havoc and chaos in your life. The techniques that are taught in PBR'S Test-Taking Strategies & Coaching courses have helped pediatricians finally pass the boards after they had failed MULTIPLE times. Learn the “board game” by understanding question-answering STRATEGIES. Start seeing an increase in your practice exam scores IMMEDIATELY. **PBR has helped a pediatrician pass on her 11th attempt!** So helping YOU should be easy. Don't have regrets. Visit the link below now and learn more about our self-paced and LIVE Test-Taking Strategies Courses. And if you're a high-risk test-taker, PLEASE consider signing up for the **VIP BUNDLE**.

www.pediatricsboardreview.com/technique

DON'T FORGET TO DO TONS OF BOARD REVIEW QUESTIONS... FOR PRACTICE!

Do at least 1000 practice questions if you're studying for the ABP initial certification boards, and at least 300 if you're taking the ABP MOC recertification exam. The first choice is the AAP PREP® series of questions, but PBR also has trusted affiliate relationships with other great companies that give you MASSIVE discounts on questions to use for PRACTICE! Just visit www.pediatricsboardreview.com/tools for member discounts.

MAXIMIZE YOUR LEARNING OPPORTUNITIES & MODALITIES!

PBR helps you **study EFFICIENTLY**. It's an entire SYSTEM that BUILDS on itself to give you the highest chance of passing your board exam. **REPETITION and MULTIMODAL** studying have both been **proven to increase learning**. The videos, the MP3s, and the summertime live webinars will help you **maximize your time and learning!** Visit www.pediatricsboardreview.com now and find the right PBR resource to help you maximize your learning efficiently (MP3s, Video Course, Webinars, Pediatric Atlas...).



www.pediatricsboardreview.com/no-brainer

Visit www.pediatricsboardreview.com/MOCA-PBR and Learn More Now

Ashish & Team PBR

Index

1

11-hydroxylase deficiency, 83, **84**
17-hydroxylase deficiency, 84

2

2,3-diphosphoglycerol, 283
21-hydroxylase deficiency, 83
22Q11.2 deletion syndrome, 110

A

ABO incompatibility, 172

abscess

brain, 305, 324
dental, 322
epidural, 398
liver, 317
peritonsillar, 301
retropharyngeal, 301
tuboovarian, 95

abuse

caregiver-fabricated illness, 442
health care provider role, 442
neglect, 442
physical abuse, 441
psychological abuse, 441
sexual abuse and assault, 441

acanthosis nigricans, 89

ACE inhibitors, 243

acetaminophen toxicity, 205

acetazolamide, 368

acetone odor, 206

achalasia, 238

achondroplasia, **255**

acid or base ingestion, 213

acid-base disorders, 363

acidemia

glutaric, 351
isovaleric, 351
methylmalonic, 351

acidemias, organic, **350**

acidosis

metabolic (and ABG), 365
renal tubular, 368
respiratory, 364, 370

aciduria

argininosuccinic, 353

acne, **150**

neonatal and infantile, 163

acrodermatitis enteropathica, 164

acromioclavicular joint separation,
419

ACTH stimulation, 82

Acute flaccid myelitis, 397

Addison disease, **82**

adenoma sebaceum, 154

adenosine, 121

adenosine deaminase (ADA)
deficiency, 360

adenovirus, 312, 329, 341

ADHD, 437

adhesion

labial and penile, 98
leukocyte, 115

adoption, 438

adrenal crisis, 83

adrenal disorders, **81**

adrenal gland layers, 83

adrenal insufficiency; see also

Addison disease, 82

adrenarche

premature, 61, 62, 63

agammaglobulinemia

Bruton, **112**

X-linked, **431**

Aicardi syndrome, 258

Alagille syndrome, 228

albendazole, 297

albinism, 116, 254

Aldolase A Deficiency, 355

aldosterone deficiency, 374

alkalosis

metabolic, 369
respiratory, 364, 370

alkaptonuria, 355

allergy

egg, 346
food, 100
milk protein, 102
nickel, 146
peanut, 100
pollen, 99
ragweed, 99

alopecia, 163

Alpers syndrome, 257

alpha-1-antitrypsin deficiency, 434

alpha-fetoprotein screening, 91

Alport syndrome, 258

amblyopia, 250

amebiasis, 317

amenorrhea, **68**

aminoacidopathies, 349, 355

amniocentesis, 92

amphetamines, 206

ANA, 421, 422

anabolic steroids, 73

anaphylaxis, 101

androgen insensitivity syndrome,
85

androgens

adrenal, **62**

anemia

aplastic, 116, 289, 290
blood loss, 285
chronic disease, 285
Diamond-Blackfan, 116, 273
Fanconi, 289
hemolytic, 281
iron deficiency, 286
megaloblastic, 223, 288, 289

microcytic, 286

newborn, 280

normocytic, 280, 383

physiologic, 280

sickle cell, 284

aneurysm, 409

Angelman syndrome, 266

angioedema, hereditary, 101, 113

angiofibromas, 154

angiomyolipoma, renal, 154

anion gap, 204, 367

aniridia, 277

ankle sprains, 419

anosmia, 65

anterior cruciate ligament, 413

anterior cruciate ligament tear
(ACL tear), 419

antibiotics, review, **296**

antibodies

antiendomysial, 235
anti-Saccharomyces, 233

antibody titers

immune deficiency testing, 112

anticholinergic toxicity, 210

anticonvulsant hypersensitivity
syndrome, 105

antifreeze, 206

antiphospholipid antibody
syndrome, 295

antiseizure medications, prenatal
exposure, 246

anuria, newborn, 175

anus

imperforate, 179, 242, 272

aortic regurgitation, 127

aortic stenosis, 126

APC mutation, 240

Apert syndrome, 254

aplasia cutis congenita, 165

apnea, neonatal, 173

appendicitis, 233

arbovirus, 312

arginine vasopressin deficiency,
377

arginine vasopressin resistance,
261

arrhythmias, 120

arterial blood gas analysis, 363

arthritis

in rheumatic fever, 135
juvenile immune (JIA), 421
septic, 418, 421

arthritis, Psoriatic juvenile
idiopathic, 423

arthritis, reactive, 423

arthrocentesis, 421

arthrogryposis, 178

Ascaris lumbricoides, 319, 433

Aschoff bodies, 136

Asherman syndrome, 69

Ashkenazi Jews, 233
 asparaginase, 244
 aspergillosis, allergic
 bronchopulmonary, 310
 Aspergillus, 310
 asphyxia, 405
 aspiration
 foreign body, 435
 assent (in ethics), 445
 asthma, **429**
 differential diagnosis, 431
 ataxia
 acute cerebellar, 406
 Friedreich, 407
 ataxia telangiectasia, 110, 406, 431
 atelectasis, 436
 atlantoaxial instability, 262, 263
 atresia
 choanal, 429
 duodenal, 239
 pulmonary, 133
 tricuspid, 133
 atrial enlargement, left, 119
 atrial enlargement, right, 119
 atrial fibrillation and flutter, 122
 atrial septal defects, 124
 atrioventricular node, 120
 atrophy
 muscular, 402
 atropine, 217
 attention deficit and hyperactivity disorder, 437
 audiometry, 199
 Auer rods, 274
 Auspitz sign, 145
 autism spectrum disorder, 269
 autonomy, 70
 autonomy (in ethics), 444
 autosomal dominant disorders, 252
 AUTOSOMAL DOMINANT POLYCYSTIC KIDNEY DISEASE (ADPKD), 385
 AUTOSOMAL DOMINANT TUBULOINTERSTITIAL KIDNEY DISEASE (ADTKD), 385
 autosomal recessive disorders, 257
 AV canal defect, 125
 AVSAR, 19

B

babesiosis, 318
 Babinski reflex, 407
 Bacillus cereus, 330
 bacteremia
 neonatal, 323
 occult, 301
 bag of water heart appearance, 140
 balanitis, 75
 barbiturates, 207
 Bartonella henselae, 305, 334

Bartter syndrome, 370
 B-cell deficiencies, **111**
 Beckwith-Wiedemann syndrome, 268
 BECTS (BCECTS). *See* seizures:benign Rolandic
 bee stings, 106
 Behcet syndrome, 423
 Bell's palsy
 in Lyme disease, 161
 beneficence (in ethics), 444
 benzoyl peroxide, 150
 beriberi, 222
 Bernard-Soulier syndrome, 293
 beta thalassemia, 287
 biophysical profile, 93
 biotin, 352
 biotin/biotinidase deficiency, 146
 BIOTIN/BIOTINIDASE DEFICIENCY, 223
 bites
 insect, 147
 stork, 152
 tick, 160, 305
 Blaschko
 lines of, 146
 Blastomyces, 309
 Blastomycosis, 309
 bleeding
 abnormal uterine, 70
 GI, **239**
 menometrorrhagia, 70
 menorrhagia, 70
 rectal, 240
 bleomycin, 244
 block
 atrioventricular, 120, 123
 left bundle branch, 124
 Mobitz, 123
 right bundle branch, 120, 124
 Wenckebach, 123
 Blount disease, 414
 blue dot sign, 75
 blueberry muffin rash, 159, 328
 Bordetella pertussis, 307
 Borrelia burgdorferi, 160
 botulism, 299
 bounding pulse, 128
 bowed legs, 255, 414
 brain death, 447
 brain tumors, 278
 breastfeeding and breast milk, **168**
 breath-holding spells, 439
 brief resolved unexplained event, 434
 Bright Futures, anticipatory guidance, 200
 bronchiectasis, 426, 435
 bronchiolitis, 312
 bronchopulmonary dysplasia, 436
 brucellosis, 335
 Brugada syndrome, 120
 bruits
 carotid, 128

cranial, 128
 Brushfield spots, 262
 Bruton agammaglobulinemia, **112**
 Bruton's agammaglobulinemia, **431**
 bulimia, 73
 burns, 215

C

C1 esterase deficiency, 101, 113
 calcifications
 intracerebral, 326, 328
 calcinosis cutis, 148, 424
 calciphylaxis, 148
 Calcium and vitamin D related disorders, **78**
 calcium channel blocker
 overdose, 212
 calcium-creatinine ratio, 378
 Campylobacter jejuni, 232, 330, 332
 C-ANCA, 425
 cancer
 testicular, 74
 Candida vulvovaginitis, 97
 candidiasis
 cutaneous, 156
 capillary malformation, 153
 caput, 178
 car seats, 177
 carbapenems, 297
 carbohydrate metabolism disorders, 356
 carbon monoxide, 212
 carboxyhemoglobin, 212
 cardiomyopathy, 255
 hypertrophic, 140
 cardioversion, 121
 carotene, 231
 case-control studies, 390, 392
 casts
 urinary, 379
 cat scratch disease, 334
 cataracts, 249, 256
 celiac disease, 235
 cellulitis, 157
 orbital, 249, 324
 preseptal, 249
 cephalohematoma, 178
 cephalosporins, 297
 cerebral palsy, 396
 cerebrovascular accident, 408
 ceruloplasmin, 360
 CH50, 113, 117
 Chagas disease, 319
 chalazion, 248
 charcoal (for poisonings), 204
 Charcot-Marie-Tooth (CMT) disease, 403
 CHARGE syndrome, 269
 Chediak-Higashi syndrome, 116
 chelation
 iron, 211
 lead, 211
 chemotaxis, 113

- cherry red spot, 361
 - chest pain, 141
 - chest x-ray findings (pearls), 436
 - Chiari malformation, 410
 - chicken pox, 314, 326
 - child abuse, 441
 - sexual, 98
 - Chlamydia pneumoniae, 306, 338
 - Chlamydia psittaci, 306
 - Chlamydia trachomatis, 94, 306, 335
 - choanal atresia, 254, 429
 - cholangitis, 231
 - cholangitis, primary sclerosing, 226
 - cholecalciferol, 220
 - cholecystitis, 231
 - choledochal cyst, 227
 - cholelithiasis, 231
 - cholescintigraphy, 226
 - cholestasis, 227
 - progressive familial intrahepatic (PFIC), 228
 - cholesteatoma, 325
 - cholinergics, 210
 - chorea, 401
 - Sydenham, 135, 401
 - choreiform movement, 401
 - chorionic villus sampling, 92
 - chorioretinitis, 326, 328
 - chronic granulomatous disease (CGD), 115, 260
 - Chvostek sign, 78
 - circulation, fetal, **129**
 - cirrhosis, 229
 - Citrobacter, 305
 - Citrobacter freundii, 305
 - citrullinemia, 353
 - cleft palate, 268
 - submucous, 265
 - clindamycin, 296
 - clinodactyly, 262, 264, 273
 - cloaca, persistent, 242
 - Clostridioides difficile, 331
 - Clostridium botulinum, 299
 - Clostridium perfringens, 331
 - Clostridium tetani, 299
 - club foot, 415
 - clue cells, 96
 - coagulase negative
 - staphylococcus, 303
 - coagulation
 - disseminated intravascular (DIC), 294
 - coagulopathy, **294**
 - coarctation
 - aortic, 131
 - cocaine, 207, 245
 - Coccidioidomycosis, 309
 - Cockayne syndrome, 269
 - cohort studies, 390, 391
 - colic, newborn, 177, 184
 - coloboma, 269
 - colostrum, 169
 - common variable immune deficiency, 111
 - compartment syndrome, 419
 - complement deficiencies, **113**
 - complexes
 - premature atrial, 119
 - premature ventricular, 119
 - concussion, 217
 - condoms, 71
 - conduct disorder, 438
 - condyloma acuminata, 71, 158
 - condyloma lata, 96, 158, 327
 - confidentiality, 446
 - congenital adrenal hyperplasia, 62, 83
 - late onset, 83
 - congenital hepatic fibrosis, 226
 - congenital HSV, 328
 - congenital hypothyroidism, 236
 - conjunctivitis
 - allergic, 249
 - bacterial, 249
 - viral, 249
 - consent (in ethics), 445
 - constipation, 231
 - constitutional growth delay, 65
 - contact sports participation, 200
 - contraceptives
 - erythema nodosum, 160
 - for acne, 150
 - oral, **90**
 - conversion disorder, 439
 - Coombs test, 281
 - cor pulmonale, 433
 - cord catheters, 179
 - corkscrew sign, 238
 - corneal abrasions, 248
 - corneal light reflex test, 251
 - corner fracture, 441
 - corpus callosum, 258
 - Corynebacterium diphtheriae, 299
 - cough
 - chronic, 435
 - cough pearls, 338
 - cough, chronic, 435
 - cover test, 251
 - COVID-19, 311
 - covid-19 vaccination, 345
 - Coxsackie virus, 312
 - CPR, 215, 217
 - cradle cap, 145
 - cranial bruits, 128
 - craniopharyngioma, 278
 - craniosynostosis, 68
 - Cri-du-chat syndrome, 266
 - VSDs, 124
 - Crigler-Najjar syndrome, 229
 - crisis
 - adrenal, 83
 - aplastic, 161, 283, 290
 - sequestration, 284
 - vasoocclusive, 284
 - Crohn's disease, 233
 - cross-sectional studies (statistics), 393
 - Crouzon syndrome, 266
 - Cryptococcus, 309
 - cryptorchidism, 272
 - Cryptosporidium, 318
 - crystals
 - urinary, 379
 - Cushing syndrome, **82**
 - cutaneous candidiasis, 144, 156
 - cutis marmorata, 163
 - cyanocobalamin, 223, 289
 - Cyanocobalamin (Vitamin B12) deficiency, 223, 288
 - cyanotic heart disease, 130
 - cyclic vomiting, 238
 - cyclophosphamide, 244
 - cyst
 - Bartholin gland, 98
 - bronchogenic, 428
 - dermoid, 150
 - penile epidermal inclusion, 75
 - thyroglossal duct, 77
 - cystic adenomatoid malformation, 428
 - cystic fibrosis, 234, 426
 - cystic hygroma, 86
 - cystinosis, 289
 - cytomegalovirus, 328
- ## D
- dactylitis, 284
 - Dandy Walker malformation, 399
 - dawn phenomenon in diabetes mellitus, 87
 - death, response to, 437
 - deer tick, 160
 - deferoxamine, 211
 - defibrillation, 122
 - dehydration, fluid management, 371
 - delayed-type hypersensitivity, 106
 - depression, 438
 - dermatitis
 - atopic, 101, 144, 147
 - contact, 144, 146
 - diaper, 144, 156
 - rh, 106
 - seborrheic, 145
 - dermatomyositis, 148, 424
 - developmental milestones. See milestones, developmental
 - dextrocardia, 141
 - diabetes insipidus, 377
 - diabetes mellitus, **87**
 - gestational, 91
 - hypoglycemia, 87
 - diabetic mother, infant of, 360
 - diaphoresis, 203
 - diaphragmatic hernia, 428
 - diarrhea
 - acute watery, 328
 - chronic nonspecific, 235
 - preformed toxins, 330
 - toddlers', 235
 - DiGeorge Syndrome, **110**
 - digits, supernumerary, 420

digoxin, 119, 212
 dihydrorhodamine (DHR)
 fluorescence test, 106
 dimercaprol, 211
 Diphyllbothrium latum, 321
 discipline, 440
 dislocation
 shoulder, 412
 disomy
 maternal, 267
 paternal, 266
 disseminated intravascular
 coagulation (DIC), 294
 divorce, response to, 438
 D-lactic acid level, 235
 Do Not Resuscitate (DNR)
 Orders, 448
 double bubble sign, 239
 Down syndrome, 262
 doxorubicin, 244
 d-penicillamine, 211
 DPG, 283
 drowning, 215
 drug exposure, intrauterine, 245
 drug hypersensitivity syndrome,
 105
 drug induced lupus, 423
 drug pearls, 243
 drugs of abuse
 alcohol, 205
 antihistamines, 208
 dextromethorphan, 208
 hallucinogens, 207
 hydrocarbon ingestion, 208
 hydrocarbon inhalation, 208
 marijuana, 207
 nicotine, 208
 opioids, 207
 sedative hypnotics, 206
 stimulants, 206
 urine drug screening, 208
 Duchenne muscular dystrophy,
 148
 duct
 Stensen's, 317
 ductus arteriosus, 128, 130
 patent, 130
 dwarfism, 179, 255, 272
 dyskinesia, ciliary, 141
 dysmenorrhea, 70
 dysostosis, craniofacial, 266
 dystonic reactions, 212, 401
 dystrophy
 muscular, 395
 myotonic, 402

E

eating disorders, **73**
 Epstein Barr virus, 275
 Epstein's anomaly, 133
 Epstein's anomaly, 246
 ecthyma gangrenosum, 148, 156
 ectodermal dysplasia,
 hypohidrotic, 151, 156
 eczema, 101, 144

 nummular, 144
 eczema herpeticum, 144, 159
 edema
 cerebral, 215
 EDTA, 211
 Edwards syndrome, 264
 effusion
 pericardial, 140
 egg shaped heart, 131
 Ehlers-Danlos syndrome, 67, 270,
 271
 Eisenmenger syndrome, 124
 electrocardiogram
 and electrolytes, 119
 elephantiasis, 321
 elfin facies, 265
 emesis, bilious in newborn, 239
 EMG, 395
 emphysema, congenital lobar, 428
 encapsulated organisms
 mnemonic, 111
 encephalitis
 herpes simplex virus, 97, 159
 encephalopathy
 mitochondrial, 353
 encopresis, 231, 442
 endocarditis, 95, 137
 acute bacterial, 138
 prophylaxis, 139
 subacute bacterial, 138
 treatment, 138
 endotracheal tubes, 217
 Entamoeba, 297
 Entamoeba histolytica, 317
 Enterobacter, 305
 Enterobius, 297, 319
 Enterococcus faecalis, 298
 enterocolitis
 necrotizing, 298
 enteropathy
 food protein induced, 103, 332
 enuresis, 442
 eosinophilic esophagitis, 233
 epididymis
 torsion, 75
 epididymitis, 75
 epiglottitis, 307, 339, 428
 epinephrine pens, 104
 Epstein-Barr virus, 313
 Erb's palsy, 395
 ergocalciferol, 220
 erythema chronicum migrans, 160
 erythema infectiosum, 161, 283
 erythema marginatum, 135
 erythema migrans, 160
 erythema multiforme, 149
 erythema nodosum, 160, 233, 331
 erythema toxicum neonatorum,
 162
 erythroblastopenia, transient, 285
 erythroblastosis fetalis, 172, 281
 erythropoietin, 383
 Escherichia coli, 329
 esophageal atresia (ea), 241
 esophagitis, 232, 237

esotropia, 250
 essential fatty acid deficiency, 225
 ethanol, 205
 ethylene glycol, 79, 206
 euthanasia, 448
 Ewing sarcoma, 276
 exotropia, 251

F

Fabry disease, 359
 factor V leiden, 295
 failure to thrive, 178
 familial hypocalciuric
 hypercalcemia, 372
 Fanconi anemia, 289
 Fanconi syndrome, 289
 fasciitis
 necrotizing, 304
 fatty acid metabolism disorders,
 349
 fava beans, 172, 261, 282
 febrile infant, 176, 322
 femoral anteversion, 414
 ferritin, 288
 fetal alcohol syndrome, 247
 fever
 rheumatic. *See* rheumatic fever
 chorea, 401
 scarlet, 301
 yellow, 341
 FeZi CaB12, 164
 fibrillation
 atrial, 121, 122
 fibroadenomas, 61
 fibrocystic change, 61
 fibromyalgia, 425
 filariasis, 321
 fingernail, 273
 fissure
 anal, 240
 horizontal, 436
 fistula
 perilymphatic, 407
 Fitz-Hugh-Curtis syndrome, 95
 fixed drug reaction, 102
 flail chest, 435
 FLATPiG, 377
 FLATPiG mnemonic, 66
 FluMist, 341
 fluorescein, 248
 fluoride supplementation, 199
 fluoroquinolones, 296
 fluorosis, 151
 folate deficiency, 223, 288
 folic acid
 prenatal, 93
 fomepizole, 206
 foramen ovale, 133
 foreign body aspiration, 435
 foreign body, nasal, 435
 forelock, white, 254
 foreskin, 75
 foster care, 439
 fractional excretion of sodium, 383
 fracture, torus, 412, 441

fractures, 411
 fragile X syndrome, 259
Francisella tularensis, 335
 fremitus, 433
 frenulum, 442
 Friedreich ataxia, 407, 415
 fructose intolerance, 357
 functional abdominal pain of
 childhood, 231
 fungemia, 308
 futility, ethical, 446
 futility, ethical, 447
 fuzzy cab mnemonic, 164

G

G6PD deficiency, 172, 260, 282
 galactosemia, 350, 357
 gallstone, 231
 gamma-glutamyl transpeptidase,
 227
 Gardner syndrome, 256
Gardnerella, 297
Gardnerella vaginalis, 96
 gasoline, 208
 gastritis, 232
 gastroenteritis, 312
 gastropathy
 erosive, 232
 gastroschisis, 241
 Gaucher disease, 358
 genetic anticipation, 259, 402
 genitalia
 ambiguous, **84**
 genu valgum, 414
 genu varum, 414
 GERD. *See* reflux,
 gastroesophageal
 gestational age
 estimating, 170
**GGT (gamma-glutamyl
 transpeptidase)**, 226, 227, 434
Giardia lamblia, 234, 297, 332
 Gilbert's syndrome, 229
 gingivostomatitis, 97, 158, 159,
 313
 ginkgo drug interactions, 245
 ginseng drug interactions, 245
 Gitelman syndrome, 370
 gland
 adrenal, 83
 Glanzmann thrombasthenia, 293
 Glasgow coma score, 216
 glaucoma
 hyphema, 248
 with port wine stain, 153
 glomerulonephritis
 membranoproliferative, 384
 post streptococcal, 300, 382
 rapidly progressive, 384
 glucuronyl transferase, 229
 glutaric acidemia, 351
 glutathione, 205
 gluten, 235
 glycogen storage disease I, 354
 glycogen storage disease II, 354

glycogen storage disease XII, 355
 glycogen storage diseases, 354
 goat milk and folate deficiency,
 288
 gonorrhea, 95
 Gottron's papules, 148
 graft versus host disease, 278
 granuloma annulare, 148
 granulomas, 424
 granulomatosis with polyangiitis,
 425
 Graves disease, 77
 great vein of Galen malformation,
 140
 green alligator (Alagille
 syndrome), 228
 greenstick fracture, 412
**GROUP B BETA HEMOLYTIC
 STREPTOCOCCUS (GBS)**, 90,
 173, 302
**GROUP B BETA HEMOLYTIC
 STREPTOCOCCUS (GBS)**,
 managing newborns, 90, 174,
 302
 Group B streptococcal sepsis, 302
 growth
 newborn, 166
 rules of thumb, 166
 growth charts, 67
 growth hormone
 abuse, 73
 growth hormone deficiency, 66
 growth hormone treatment
 , ethics, 449
 growth retardation, intrauterine,
 166
 growth velocity, **60**
 Guillain-Barre syndrome, 396
 guns, 72

H

Haemophilus influenzae, 307
 hair collar sign, 165
 haptoglobin, 281
 Harlequin ichthyosis, 147
 Hartnup disease, 223
 Hashimoto's thyroiditis, 76
 hay fever, 99
 hazard ratio, 390
 HBIG, 342, 343
 head circumference, 167
 head injury, 216
 head trauma, 408
 headaches, 400
 hearing, 199
 heart disease, cyanotic, 130
 heart failure
 congestive, in first week, 140
 heat exhaustion and stroke, 372
 Heinz bodies, 173, 261, 282
Helicobacter pylori, 232
 heliotrope rash, 148
 heliotropic rash, 424
 hemangiomas, 151
 hematoma

cephalohematoma, 178
 epidural, 408
 subdural, 408
 subperiosteal, 178
 hematuria
 microscopic, 378
 hemihypertrophy, 153
 hemoglobin
 A1C, 87, 88, 89
 fetal, 134, 175, 239
 hemoglobin H disease, 286
 hemoglobin variants, 279
 hemoglobinuria
 paroxysmal nocturnal, 284
 hemoglobinuria, paroxysmal
 nocturnal, 284
 hemolytic uremic syndrome, 292,
 382
 hemophilia, 261
 hemorrhage
 subarachnoid, 409
 hemosiderin, 281
 hemosiderosis, 287
 Henoch-Schönlein purpura, 424
 hepatic inhibitor, 245
 hepatitis A, 229
 hepatitis A vaccine, 342
 hepatitis B, 229
 hepatitis B vaccine, 342
 hepatitis C, 229
 hepatoblastoma, 226
 hermaphroditism, 86
 hernia
 diaphragmatic, 428
 inguinal, 74
 umbilical, 236
 heroin exposure, prenatal, 246
 herpangina, 312
 herpes simplex virus, 158, 313
 Herpes simplex virus, 97
 herpes simplex virus encephalitis,
 159, 313
 heterochromia, 254
 hiccups, 350, 362
 HIDA scan, 226
 hip dysplasia, developmental, 417
 Hirschsprung disease, 236
 Histoplasmosis, 309
 HIV, 314
 hives, 101, 149
 HLA B27, 233
 Hodgkin's lymphoma, 336
 Holt Oram syndrome, 266
 homocystinuria, 67, 270, 271, 356
 homosexuality, 72
 hookworm, 320
 hordeolum, 248
 Horner syndrome, 396
 horseshoe kidney
 Turner syndrome, 86
 Howell-Jolly bodies, 285
 HRIG, 214
 human herpes virus 6, 313
 human immunodeficiency virus
 (HIV), 314

human papilloma virus (HPV), **71**, **158**
Huntington disease, 402
Hurler and Hunter syndromes, 357
Hutchinson teeth, 96, 151, 327
hydrocarbon ingestion, 208
hydrocarbon inhalation, 208
hydrocele, 74
hydrocephalus, 167
hydrogen breath test, 235, 333
hydrops fetalis, 149, 161, 283, 286, 423
hydrops, gallbladder, 226
hygroma, cystic, 271
hyperammonemia, 230, 350
hyperbilirubinemia. *See* jaundice
hypercalcemia, **78**
 familial hypocalciuric, 78
hypercalciuria, 378
hypercapnia, 434
hypercholesterolemia, familial, 143
hypercortisolism, 82
hyperglycemia
 rebound, 87
hyperglycinemia, 350
hyper-IgE syndrome, 113
hyperkalemia, 374
hyperlipidemia, 142
hypermobility
 Marfan syndrome, 67, 270
hypermobility, joint, 419
hypernatremia, 377
hyperopia, 249
hyperoxia test, 130, 429
hypersensitivity reactions, types, 104
hypertension, 141
 persistent pulmonary, 133
hyperthermia, malignant, 244
hyperthyroidism, **77**
hypertrophy
 biventricular, 125
 septal, 140
 ventricular, 125
hyperviscosity, 280
hyphema, 248
hypoalbuminemia, 384
hypocalcemia, **78**
hypogammaglobulinemia
 transient of infancy, 112
hypoglycemia
 diabetes mellitus, 87
hypoglycemia
 neonatal, 175
hypoglycemia
 differential diagnosis, 359
hypogonadism, 271
hypohidrosis, 156
hypokalemia, 374
hyponatremia, 375
hypoparathyroidism, 81, 221
hypoplastic left heart, 133
hypospadias, 179, 180, 272

hyposthenuria, 284
hypothermia, 216
hypothyroidism, **76**
 acquired, 76
 congenital, 76
hypovolemia, 217
hypsarrhythmia, 405

I

I-cell disease, 358
ichthyosis, 147
icterus, 231
ID precautions
 airborne, 298
 contact, 298
 droplet, 298
idiopathic neonatal hepatitis, 228
IgA deficiency, 113
IgA nephropathy, 384
immune thrombocytopenic purpura (ITP), 291
immunizations. *See* vaccine
immunoglobulin
 thyroid stimulating, 77
Immunoglobulin A vasculitis
 IgA vasculitis (IgAV), 424
immunotherapy
 for allergy, 99
impetigo, 156
imprinting, 266, 267
incidence (statistics), 390
incontinentia pigmenti, 151, 155
India ink, 309
inducers
 hepatic, 245
infant of diabetic mother, 360
infantile spasms, 405
inflammatory bowel disease, 233
influenza vaccine, 341
ingestion
 acid or base, 213
 foreign body, 213
 sharp object, 214
inhalant abuse, 208
inhalants, 71
Inhibin, 92
inhibitor
 hepatic, 245
intellectual disability, 408
intoeing, 414
intracranial pressure, increased, 399
intussusception, 234
iodine, 77
ipecac, 204
IPV, 341, 345
iron
 overdose, 211
iron indices, **288**
 ferritin, 286
 TIBC, 211, 285, 286
 transferrin, 285, 286
iron supplementation
 infants, 169
iron-deficiency, 211

irritable bowel syndrome, 233, 236
isopropyl alcohol, 206
isotretinoin, 150
isotretinoin, prenatal exposure, 247
isovaleric acidemia, **351**
Ixodes deer tick, 160, 318

J

Janeway lesions, 138
Jarisch-Herxheimer reaction, 161
jaundice
 breast milk, 171
 causes, 227
 hepatocellular, 227
jaundice, neonatal, 171
 ABO incompatibility, 172
 risk factors, 172
jet phenomenon, 238
Jimson weed, 210
Johanson-Blizzard syndrome, 258
joint hypermobility, 419
Jones criteria, 135

K

Kallmann syndrome, 65
kaplan meier curve, 390
Kartagener syndrome, 141
Kasabach-Merritt syndrome, 152
Kawasaki disease, 137
Kayser-Fleischer ring, 230, 360
keratolysis, pitted, 148
keratosis pilaris, 145
kerosene, 208
ketoacidosis, diabetic, **88**
kidney stones
 calcium oxalate, 79
Kleihauer-Betke test, 172, 281
Klinefelter syndrome, 66, 87
Klippel-Feil syndrome, 153, 154
Klumpke palsy, 395
knee injuries, 413
knock-knees, 414
Koebner phenomenon, 422
Koplik spots, 315
Korsakoff syndrome, 222
Kussmaul's sign, 140
kwashiorkor, 225

L

lab values, 455
lactase deficiency, 104
lactose intolerance, 104, 235
Langerhans cell histiocytosis, 145
larva migrans
 cutaneous, 321
 visceral, 320, 432
laryngomalacia, 427
laryngospasm, 78
lateral epicondylitis, 413
Laurence-Moon-Biedl syndrome, 267
lavage, gastric, 213, 239
laxatives, 231
lead toxicity, 211, 287

learning disabilities, 437
 lecithin-sphingomyelin (L/S) ratio, 93
 Legg-Calve-Perthes disease, 416
 lens
 subluxation, 67, 270
 leptospirosis, 308
 Lesch-Nyhan syndrome, 360
 leukemia
 acute lymphoblastic, 274
 acute lymphocytic, 274
 acute myeloid, 274
 chronic myelogenous, 274
 leukocoria, 256
 leukocyte adhesion deficiency, 115
 lichen sclerosus, 146
 lichen striatus, 146
 likelihood ratio (statistics), 388
 linezolid, 296
 Lisch nodules, 155
 Listeria monocytogenes, 299
 lithium, 246
 lithium exposure, prenatal, 246
 livedo reticularis, 163
 Loffler syndrome, 319, 433
 lower GI bleeding, 239, 240
 Lund & Browder chart, 215
 lung maturity, prenatal
 assessment, 93
 lupus
 drug induced, 423
 neonatal, 149, 423
 systemic, 422
 Lyme disease, 160
 lymphadenopathy
 acute, 334
 chronic cervical, 334, 335
 generalized, 96
 hilar, 424
 non-tender, 336
 preauricular, 334
 lymphangiectasia, 334
 lymphogranuloma venereum, 335
 lymphoma
 Burkitt, 275
 lysosomal storage diseases, 357

M

macrocephaly, 167
 macrolides, 297
 macroorchidism, 259
 magnesium sulfate, 243
 maintenance IV fluids, 371
 malabsorption, 334
 malaria, 318
 malrotation, 238, 239
 Maltese Cross, 318
 mammography, 61
 MANNTRA mnemonic, 255
 maple syrup urine disease, 350, 356
 marasmus, 225
 Marfan syndrome, 67, 270
 marijuana, 71, 207

mastoiditis, 324
 MCAD deficiency, 353
 McCune-Albright syndrome, 154
 MDMA, 208
 measles, 315, 316, 344
 Meckel's diverticulum, 240
 Meconium Aspiration Syndrome, 175, 436
 meconium ileus, 236
 medial collateral ligament, 413
 mediastinal mass, anterior, 279
 medication pearls, 243
 medullary cystic kidney disease, 385
 medullary sponge disease, 385
 medulloblastoma, 278
 megacolon, 233, 236
 melanoma, 154
 melanosis, transient neonatal
 pustular, 162
 MELAS, 353
 menarche, 60
 meningitis, 325, 409
 meningocele, 409
 meningomyelocele, 409
 meniscal injury, 413
 menopause, premature, 69
 Mentzer index, 286
 metabolic acidosis, 367
 metabolic alkalosis, 369
 metabolic syndrome, 89
 metatarsus adductus, 414, 415
 methadone exposure, prenatal, 246
 methanol, 205
 methemoglobinemia, 213
 methotrexate, 244
 methylmalonic acidemia, 351
 metoclopramide, 244
 metronidazole, 297
 microcephaly, 68, 167
 micropenis, 65, 66, 84, **85**
 midface hypoplasia, 247
 valproic acid exposure, 247
 midparental height, 65, 166
 MIG, 316, 344
 migraine headaches, 400
 milestones, developmental, **181**
 milia, 162
 miliaria rubra, 162
 minimal change nephrotic
 syndrome, 384
 minimally conscious state, 447
 miosis, 203
 misoprostol, 243
 mitochondrial disorder, 349
 mitochondrial disorders, 353
 mitral regurgitation, 126
 mitral stenosis, 126
 mitral valve prolapse, 126, 271
 Marfan syndrome, 67, 270
 MMR vaccine, 341
 moles, 154
 molluscum contagiosum, 157
 mononucleosis, 313

Morquio syndrome, 358
 motor vehicle accidents, 72
 MRSA, 297
 mucopolysaccharidoses, 357
 mudpileS, 367
 mudpileS mnemonic, 210
 Mullerian inhibitor hormone, 85
 Mullerian inhibitor hormone
 deficiency, 86
 multicystic dysplastic kidney, 380
 mumps virus, 317
 murmurs, cardiac, 125
 Murphy's sign, 231
 myasthenia gravis, 398
 mycobacteria, atypical, 335, 336
 Mycobacterium tuberculosis, 310
 lymphadenopathy, 335
 Mycoplasma genitalium, 95
 Mycoplasma pneumoniae, 307
 mydriasis, 203
 myelitis
 transverse, 397
 myeloblast, 274
 myocarditis, 140
 myoglobinuria, 378
 myopia, 249
 myotonic dystrophy, 402
 myringitis, bullous, 307
 myringotomy tubes, 325

N

N-acetylcysteine, 205
 nail hypoplasia
 prenatal drug exposure, 246
 nail patella syndrome, 255
 naloxone, 178, 217
 necrotizing enterocolitis, 175, 242
 Neisseria gonorrhea, **95**
 Neisseria meningitidis, 343, 345
 neonatal jaundice. *See* jaundice
 neonatal lupus, 149, 423
 nephritis
 acute interstitial, 383
 lupus, 422
 nephrolithiasis, 378
 nephropathy
 IgA, 384
 membranous, 385
 nephrotic syndrome, 384
 nerve conduction velocities
 testing, 395
 neuroblastoma, 277
 neurofibromatosis, 155
 neuropathies
 hereditary primary motor
 sensory, 403
 neuropathy
 peripheral, 164, 395
 neutropenia, 107
 chronic benign, 115
 cyclic, 115
 neutropenic enterocolitis, 242
 neutrophil disorders, **114**
 nevi, congenital melanocytic, 154
 nevus flammeus, 153

nevus simplex, 152
 newborn screen
 congenital adrenal hyperplasia, 83
 niacin deficiency, 222
 nicotine, 208
 Niemann-Pick disease, 359
 night terrors, 440
 nightmares, 440
 Nikolsky sign, 148
 nitroblue tetrazolium test, 106
 nodules
 vocal cord, 435
 non-stress test, 92
 Noonan's syndrome, 255
 normal heart rates, 120
 Norwalk virus, 329
 null hypothesis, 389
 number needed to treat (statistics), 390
 nursemaid's elbow, 417
 nutrition
 neonatal, 167
 nutrition, parenteral, 171
 nystagmus, 203

O

obstruction
 airway, 427
 biliary, 227
 cystic duct, 226
 duodenal, 239
 gastric outlet, 237
 pancreatic duct, 234
 small bowel, 240
 subglottic, 428
 odds ratio (statistics), 393
 odor
 mousy, 355
 musty, 355
 oligoarthritis, 421
 oligohydramnios, 272
 oliguria, 383
 omphalocele, 241
 ophthalmopathy, 77
 opioids, 207
 Opitz syndrome, 179
 oppositional defiant disorder, 438
 orchitis, 75
 organ donation, 448
 organic acidemias, 349, **350**
 organomegaly, 274
 ornithine transcarbamylase, 257, 261, 352
 ornithine transcarbamylase deficiency, 353
 orotic acid, 353
 Osgood Schlatter disease, 416
 Osler's nodes, 138
 osmolar gap, 204
 osteochondritis dissecans, 416
 osteochondroma, 276
 osteochondrosis, 416
 osteogenesis imperfecta, 413
 osteoma

osteoid, 276
 osteomyelitis, 418
 osteopenia, 223
 osteopenia of prematurity, 81
 osteoporosis, 71
 osteosarcoma, 256, 276
 otitis externa, 324
 otitis media, 324
 otorrhea, chronic, 325
 ovarian failure, 64, 65
 oxygen saturation, pre- and post-ductal, 131

P

P450 inhibitors, 245
 p-ANCA, 226
 pancreas
 annular, 238
 pancreatitis, 234
 pancytopenia, 290
 panhypopituitarism, 84
 papilledema, 248
 papillitis, 248
 Parkland formula, 215
 parotitis, 324
 paroxysmal nocturnal hemoglobinuria, 284
 parvovirus B19, 161, 283
 Patau syndrome, 262, 264
 patent ductus arteriosus, 130
 peak and trough levels, 243
 pear-shaped head, 254
 pediculosis, 98, 160
 pellagra, 222, 223
 pelvic inflammatory disease (PID), 94, 95, 306
 penicillin, 296
 penicillin allergy, 106
 peptic ulcer disease, 232
 perforated palate, 96
 perforation, esophageal, 241
 pericardial effusion, 140
 pericarditis, 136, 139
 in rheumatic fever, 135
 peri-hepatitis, 95
 peritonitis
 secondary, 322
 spontaneous bacterial, 322
 persistence of fetal circulation, 133
 persistent vegetative state, 447
 pertussis, 307
 pes cavus, 415
 pes planus, 415
 pesticides, toxicity, 210
 Peutz-Jeghers syndrome, 256
 PHACES, 152
 pharmacokinetics, 243
 phenacyclidine, 207
 phenylalanine, 355
 phenylketonuria, 355
 pheochromocytoma, 142
 Philadelphia chromosome, 274
 phimosis, 75
 phosphatidylglycerol, 93

phototherapy
 riboflavin deficiency, 222
 physician assisted suicide, 448
 phytonadione, 220
 Pierre-Robin syndrome, 268
 pilocarpine, 210
 pinworms, 297, 319
 pityriasis alba, 145
 pityriasis rosea, 157
 plague, 336
 Plan-Do-Study-Act model, 453
 platelet disorders, 291
 pneumococcus, 300, 345
 Pneumocystis jirovecii (carinii), 107, 321
 pneumonia, 431
 adolescents, 322
 ground glass, 321
 pneumothorax, 435
 pneumothorax, spontaneous, 435
 poison ivy, 106
 polio, 341
 poliomyelitis, 257
 polyarthritis, 136, 421
 polycystic ovarian syndrome, 69
 polycythemia, 280
 polydactyly, 420
 polydipsia, psychogenic, 376
 polyhydramnios, 237, 238
 polyp
 juvenile, 240
 nasal, 141, 426
 polyposis, 256
 familial adenomatous, 240
 polyuria
 hypercalcemia, 78
 Pompe's Disease, 354
 porphyria, 256
 port wine stain, 153
 posterior urethral valves, 380
 postexposure prophylaxis, 343
 Potter syndrome, 272
 PR interval, 119
 Prader-Willi syndrome, 267
 prediabetes, 89
 predictive value
 negative, 387
 positive, 387
 predictive value (statistics), 389
 preeclampsia, 243, 246
 premature atrial complexes, 119
 premature ventricular complexes, 119
 premenstrual syndrome, 70
 prenatal care, 90
 pressure equalization (PE) tubes, 325
 prevalence (statistics), 389
 proctitis, food protein induced, 103, 333
 progressive familial intrahepatic cholestasis (PFIC), 228
 prolactinoma, 64, 68
 prolapse
 rectal, 242

prolonged QT interval, 123
 prolonged QT syndrome, familial, 123
 propionic acidemia, **351**
 prostaglandin (PGE1), 130
 protein
 creatinine ratio, 378
 protein C deficiency, 295
 proteinuria, 378
proximal humeral epiphysiolysis, 413
 prune belly syndrome, 272, 380
 pseudoappendicitis, 331
 pseudohermaphroditism, 86
 pseudohyponatremia, 89, 376
 pseudohypoparathyroidism, 81, 221
 Pseudomonas, 307
 pseudostrabismus, 250
 pseudotumor cerebri, 219
 psoriasis, 145
 PTSD, 70
 pubarche, 60, 61
 puberty
 age range, **61**
 delayed, 64
 precocious, 61, 154
 pulmonary artery, 255
 pulmonary atresia, 133
 pulmonary hypoplasia, 272
 pulmonary malformation, 432
 pulmonary malformation, congenital, 428
 pulmonary stenosis, 126
 pulsus paradoxus, 139
 purine and pyrimidine disorders, 360
 purpura
 thrombocytopenic, maternal, 291
 pyelonephritis, 381
 pyloric stenosis, 237
 pyoderma gangrenosum, 147, 233
 pyridoxine (vitamin B6) deficiency, 223
 pyruvate kinase deficiency, 283

Q

QT interval
 prolonged, 123
 quality improvement, 451
 Quantiferon, 310
 quinolones, 296

R

rabies, 214
 radial head, subluxed, 417
 radial hypoplasia, 179, 242, 272
 radiculopathy, 417
 ranula, 77
 rape, 70
 rashes
 pruritic, 145
 rashes, newborn, 162
 Rashkind procedure, 131

RAST, 100, 101, 144
 Raynaud's phenomenon, 425
 RDW, 288
 Rebus skin window, 116
 rectal prolapse, 242, 321
 red cell distribution width (RDW), 288
 refeeding syndrome, 73
 reflux, gastroesophageal, 233, **237**
 regurgitation
 aortic, 127
 mitral, 126
 renal artery stenosis, 383
 renal failure, 383
 renal tubular acidosis, 368
 renovascular disease, 383
 respiratory distress syndrome, 434
 respiratory distress syndrome (RDS), 434
 respiratory syncytial virus (RSV), 312
 retinal artery occlusion, 362
 retinitis pigmentosa, 256
 retinoblastoma, 256
 retinol, 219
 retinol exposure, prenatal, 247
 retinopathy of prematurity, 171
 Rett syndrome, 270
 Reye's syndrome, 230
 Rh disease, 172, 281
 rhabdomyolysis, 79, 374
 rhabdomyomas, cardiac, 154
 rhabdomyosarcoma, 278
 rheumatic fever, **135**
 rheumatoid arthritis, 421
 rheumatoid factor, 421
 rheumatoid nodules, 421
 rhinitis
 allergic, 99
 chronic, 99
 rhinovirus, 430
 Rhogam, 172, 281
 for ITP, 292
 Rhus reaction, 146
 riboflavin deficiency, 222
 rickets
 of prematurity, 81
 Rickettsia rickettsii, 305
 ringworm, 149, 157, 164
 rocker-bottom feet, 264
 Rocky Mountain spotted fever, 305
 Rolandic epilepsy, 404
 roseola, 313
 rotator cuff tears, 419
 rotavirus, 329
 rotavirus vaccine, 341
 rubeola, 315
 rule of 9s, 215
 Rumack-Matthew nomogram, 205
 rumination, 239
 Russell-Silver syndrome, 179, 272

S

salicylates, toxicity, 210
 salmon patch birthmark, 152
 Salmonella, 330
 Salmonella typhi, 332
 salt wasting, cerebral, 376
 Salter-Harris fracture
 classification, 411
 Sanfilippo syndrome, 358
 sarcoidosis, 424
 sarcoma
 osteogenic, 256, 276
 SARS, 317
 scabies, 160
 scarlet fever, 301
 Schistosoma, 320
 school phobia, 437
 school phobias, 437
 scleroderma, 149
 scoliosis, 416
 scorpion sting, 215
 screening
 prenatal
 amniocentesis, 92
 screening
 audiometry (hearing), 199
 lipids, 142
 newborn metabolic, 350
 prenatal
 alpha-fetoprotein, 91
 biophysical profile, 93
 chorionic villus sampling, 92
 non-stress test, 92
 Tay-Sach disease, 358
 triple and quadruple screens, 92
 vision, 250
 scrotal mass, 74
 scurvy, 223
 sebaceous hyperplasia, 154, 162
 seizure(s)
 absence, 405
 benign Rolandic, 404
 complex partial, 404
 febrile, 405
 first time, 403
 infantile spasms, 405
 management, 403
 neonatal, 405
 simple partial, 404
 tonic-clonic, 405
 sensitivity (statistics), 388
 sepsis
 Group B streptococcal, 302
 septal defect
 atrial, 124
 ventricular, 124
 septal defects, atrioventricular, 124
 septic arthritis, 418
 sequestration
 intrapulmonary, 432
 pulmonary, 428
 splenic, 284

serotonin syndrome, 208
 serum sickness, 106
 severe acute respiratory syndrome, 317
 severe combined immunodeficiency (SCID), **108**
 Shagreen patch, 154
 Shigella, 329
 shock, 217
 short stature, **65**
 shoulder dislocation, 412
 shunts, cardiac, 130
 Shwachman Diamond syndrome, 116
 SIADH, 82, 376
 sickle cell anemia, 284
 Silver Russell syndrome, 179, 272
 sinusitis, 324
 Sjogren syndrome, 424
 skin testing
 allergen, 99
 skull fracture, 216, 217, 441
 slapped cheeks appearance, 161
 sleep
 infants, 177
 slipped capital femoral epiphysis, 415
 small for gestational age, 247
 smallpox, 314, 326
 Smith-Lemli-Opitz syndrome, 361
 smoking, 71, 208, 389
 snowman shape heart (TGA), 133
 sodium
 fractional excretion, 383
 somatization, 439
 somatosensory evoked potentials, 395
 Somogyi phenomenon, 87
 spasm
 carpopedal, 78, 373
 specificity (statistics), 388
 spectrin, 283
 spells
 breath-holding, 439, 440
 spermatocoele, 74
 spherocytosis
 hereditary, 283
 sphingolipidoses, 358
 sphingomyelin, 93
 sphingomyelinase, 359
 spider
 black widow, 214
 spider, brown recluse, 214
 spina bifida, 409
 spirometry, 430
 splenectomy patients, 337
 spondylitis, juvenile ankylosing, 423
 spondyloarthropathy, 423
 spondylolisthesis, 417
 spondylolysis, 416
 sporotrichosis, 336
 sprains, 419
 sprue, 235

St. John's wort drug interactions, 245
 staghorn calculi, 379
 staphylococcal scalded skin syndrome (SSSS), 156
 Staphylococcus aureus, 303
 Staphylococcus epidermidis, 303
 statistics calculations overview, 387
 stature
 tall, 66
 steatorrhea, 334
 stem cell donation, 448
 stenosis
 aortic, 126
 mitral, 126
 pulmonary, 126
 pyloric, 237
 renal artery, 383
 supravalvular, 265
 tricuspid, 126
 stereotypy, 401
 sternocleidomastoid, 420
 Stevens-Johnson syndrome, 148, 149
 compared with impetigo, 157
 stippling
 basophilic, 211, 287, 288
 storage diseases, 349
 stork leg deformity, 403
 strabismus, 250
 strawberry tongue, 137
 streptococcal pharyngitis, 300
 streptococcal skin infections
 groin and perineum, 156
 Streptococcus agalactiae, 299, 300
 Streptococcus pneumoniae, 300
 Streptococcus viridans, 300
 Streptococcus, Group A, 300, 382
 stress test, 93
 stridor, 427
 stroke, 408
 Strongyloides, 321
 Sturge-Weber syndrome, 153
 stuttering, 437
 styte, 248
 subglottic stenosis, 428
 subluxation
 lens, 67, 270
 sucralate, 243
 sudden infant death syndrome, 175
 suicide
 guns, 72
 physician assisted, 448
 sun safety, infants, 177
 superior vena cava (SVC) syndrome, 141, 279
 supravalvular stenosis, 265
 surfactant, 434
 swimmer's ear, 324
 Sydenham chorea, 135
 sympathomimetics, 203
 syncope, 126, 132, 408

syndactyly, 254, 264, 273, 361
 synovitis, toxic, 418
 syphilis
 condyloma lata, 158
 systemic lupus, 422

T

tachycardia
 reentrant, 121, 122
 supraventricular, 121
 ventricular, 119, 122
 Taenia saginata, 320
 Taenia solium, 320
 talipes equinovarus, 415
 tall stature, **66**
 tampon, 322
 Tanner stages, **59**
 tapeworm, 320
 target lesions
 in erythema multiforme, 149
 Tay-Sach disease, 358
 T-cell deficiencies, 108
 Tdap, 343, 344, 345
 technetium, 240
 teeth
 avulsed, 151
 peg-shaped, 96, 327
 supernumerary, 256
 television, 440
 telogen effluvium, 164
 terbutaline, 243
 testicular feminization. *See*
 androgen insensitivity syndrome
 testicular pain, 74
 testicular torsion, 75
 testis
 undescended, 180, 272
 tetanus wound prophylaxis, 344
 tetany, 78
 tetralogy of Fallot, 132
 Alagille syndrome, 228
 prenatal drug exposure, 246, 247
 Tetralogy of Fallot
 spells, 132
 thalassemias, 286
 thelarche, 60
 premature, 63
 theophylline toxicity, 212
 thiamine deficiency, 222
 thrombocytopenia, **291**
 alloimmune, neonatal, 291
 thrombocytopenia and absent radius (TAR) syndrome, 291
 thumb sucking, 440
 thymoma, 398
 thyroid disorders, **76**
 thyroid nodules, 77
 thyroiditis, 76
 thyrotoxicosis, 76
 neonatal, 77
 thyroxine-binding globulin deficiency, 76
 tick paralysis, 397

tick-borne diseases, 305, 335
 ticks, 397
 tics, 401
 tinea capitis, 164
 tinea corporis, 157
 tinea versicolor, 157
 tobacco, 71, 208
 tocolysis, 243, 246
 tocopherol, 220
 Todd paralysis, 406
 tongue tie, 442
 tooth timeline, **151**
 TORCH infections, 326
 Torsades de Pointes, 123
 torsion
 testicular, 75
 tibial, 414
 torticollis
 in Klippel-Feil syndrome, 154
 torticollis, congenital, 420
 torus fracture, 412
 total anomalous pulmonary
 venous return, 133
 total iron binding capacity (TIBC),
 288
 total parenteral nutrition (TPN),
 171
 Tourette syndrome, 401
 toxic epidermal necrolysis, 148
 toxic shock syndrome (TSS), 322
 toxic synovitis, 418
 toxicity
 acetaminophen, 205
 amphetamines, 206
 anticholinergic, 210
 barbiturates, 207
 beta blocker, 212
 calcium channel blocker, 212
 cholinergics, 210
 clonidine, 212
 cocaine, 207
 digoxin, 122, 212
 ethanol, 205
 iron, 211
 isopropyl alcohol, 206
 lead, 211, 287
 methanol, 205
 opiod, 207
 pesticide, 210
 phencyclidine, 207
 phenothiazine, 212
 salicylates, 210
 theophylline, 212
 tricyclic antidepressants, 210
 toxidromes, 204
 Toxocara canis, 320, 432
 Toxoplasma gondii, 326
 tracheitis, 339
 tracheoesophageal fistula (tef),
 241
 tracheomalacia, 427
 transaminases, 229
 transferrin, 288
 transfusion, PRBC, 280
 Transgender, 443

cisgender, 443
 gender, 443
 gender expression, 443
 gender identity, 443
 gender variant/nonconforming,
 443
 genderqueer, 443
 sex, 443
 sexual orientation, 443
 transsexual, 443
 transient neonatal pustular
 melanosis, 162
 transient tachypnea of the
 newborn (ttn), 434
 transillumination, 74
 translocation
 Down syndrome, 262
 t(21q;21q), 263
 t(4;11), 274
 t(8;14), 275
 t(9;22), 274
 transposition of the great arteries,
 131
 transverse myelitis, 397
 trauma
 head, 408
 tretinoin, 150
 Trichomonas vaginalis, 96
 trichotillomania, 165
 Trichuris, 242, 321
 tricuspid regurgitation, 133
 tricuspid stenosis, 126
 triphalangeal thumbs, 117, 290
 triple-jointed thumb, 266
 trismus, 301
 trisomy
 VSDs, 124
 trisomy 13, 264
 trisomy 18, 264
 trisomy 21, 262
 trisomy disorders, 262
 Trousseau's sign, 78
 truncus arteriosus, 131
 Trypanosoma brucei, 319
 Trypanosoma cruzi, 319
 tryptophan, 223
 tsetse fly, 319
 tuberous sclerosis, 154, 257
 tularemia, 335
 tumor lysis syndrome, 278
 Turner syndrome, 271
 twins, **93**
 type 2 diabetes mellitus (t2dm), 88
 type I and II errors (statistics), 389
 typhilitis, 176, 242
 typhoid, 330
 tyrosinemia, 356
 Tzanck stain, 97, 144, 159, 313
U
 ulcer
 aphthous, 150, 337
 ulcerative colitis, 233
 umbilical artery
 single, 242

umbilical artery, single, 179
 umbilical cord, 179
 urea cycle defects, 349, **352**
 ureterocele, 381
 ureteropelvic junction obstruction,
 379
 urethritis
 nongonococcal, 95
 urinary crystals, 379
 urticaria, 101, 149
 papular, 147
 uveitis, 421
V
 vaccine
 contraindications, 346
 hepatitis A, 342
 hepatitis B, 342
 influenza, 341
 MMR, 341
 rotavirus, 341
 schedule, 345
 vaccines
 yellow fever, 340
 vaccines
 adenovirus, 340
 live, 340
 vagal maneuvers, 121
 vaginosis, bacterial, 96
 valgus deformity, 413
 validity hierarchy, 390
 Valley fever, 309
 vancomycin, 296
 vanillylmandelic acid, 142
 varicella zoster virus, 314, 326
 varicella, congenital, 326
 varicocele, 74
 variola, 314, 326
 varus deformity, 413
 vasomotor rhinitis, 99
 VATER/VACTERL, 179
 vegan diet, 164, 224
 vegetarians, 164, 224
 ventricular septal defects, 124
 vertigo, benign positional, 407
 vesicoureteral reflux, 380
 vincristine, 244
 viral hepatitis, **228**
 vital signs, 457
 Vitamin B12 deficiency, 223, 288
 vitamin C deficiency, 223
 vitamin D, **80**
 vitamin D deficiency, 220
 vitamin D excess, 220
 vitamin E deficiency, 220
 vitamin K deficiency, 220
 vitamins
 fat-soluble, 219
 water-soluble, 222
 vitiligo, 147
 VLBW, 178
 vocal cord nodules, 435
 vocal fremitus, 433
 vulvulus, 238, 239
 vomiting

newborn, 239
vomiting, causes, 237
Von Gierke's disease, 354
von Willebrand disease, 294
VZIG, 314, 326

W

Waardenburg syndrome, 254
warfarin exposure, prenatal, 246
warts
 anogenital, 72, 158
water intoxication, 376
web, antral and esophageal, 237
Wegener's granulomatosis, 425

weight and weight gain, newborn,
 166
Werdnig-Hoffman disease, 402
whipworm, 321
whitlow, 97
Williams syndrome, 265
Wilms tumor, 277
Wilson disease, 230, 360
Wiskott-Aldrich syndrome, 109,
 261
Wolff-Parkinson-White syndrome,
 121
Woods lamp, 154
ethylene glycol in urine, 206

X

X-linked disorders, 258
XXY (Klinefelter syndrome), 66

Y

Yersinia enterocolitica, 331
Yersinia pestis, 336

Z

Zika Virus, 317
zinc deficiency, 156, 163, 164,
 224
Zollinger-Ellison syndrome, 232

