Reviewing and Test-Taking Strategies

I. Introduction

Standardized multiple-choice exams have the reputation of being relatively pure and objective assessments of an individual’s knowledge base. This assertion is flawed, however. First, standardized exams reflect your ability to acquire the knowledge that is addressed in the examination. Your ability to know what is likely to appear on the exam and your ability to absorb and retain this specific information will have a major impact on your score. You can have an expansive knowledge base but if a substantial portion consists of information that is not on the test, you will not score well.

Second, your final score will also reflect your ability to solve a problem when you are unsure of the answer—basically how well you guess.

The primary objectives of this talk are to provide you with:

1. tips on how to most effectively study for Pediatric Board exam
2. approaches to enhance your ability to guess correctly when you are unsure of the answer.

II. Reviewing for the Exam

A. Develop a realistic plan for studying. One month should give you a fair amount of time if you use the time effectively. It’s better to set aside several hours each day than to cram intensively just prior to the exam.

Develop a plan by subject area. If you have 30 days to study, you could, for example, spend 3 days on Neurology, 3 days on Endocrinology, etc.

B. Look at the ABP website before you start studying. It provides an examination content outline that gives you the percentage of questions on different topic areas as well as relatively detailed content specifications for the exam.

C. Identify appropriate study materials. Greater emphasis is placed on mechanisms of disease and diagnosis than on treatment. You should choose textbooks that emphasize these areas or at least tailor your reading to emphasize these sections in a book.

D. Two concepts that are critical to recognize and utilize when you review for the exam are pattern recognition and links and associations.
**Pattern recognition** is a process that experienced physicians routinely use to solve clinical problems and it is extraordinarily important in the board exam. The concept is fairly simple. Every disease has a fairly classic pattern of symptoms. On the board exam, when you are provided with a clinical vignette, you need to quickly recognize what disease is most suggested by the pattern of symptoms. For example, in a patient with cough and fever, one needs to be able to differentiate *common* conditions such as influenza, RSV infection, and croup. One also needs to know the classic patterns of presentation of *rare* but life-threatening diseases. A third category of diseases that one needs to be familiar with is rare but distinctive diseases, particularly where the pathophysiology of disease is well known (e.g. inborn errors of metabolism). Also important is knowledge and recognition of key red flags that indicate potentially serious illness. Pay close attention to vital signs. A high heart rate or a low blood pressure may be signs that something serious is occurring.

A key element in pattern recognition is knowing what diseases are prevalent in different age groups. For example, a 3 week old with vomiting could have pyloric stenosis whereas this diagnosis would be highly unlikely in a 2 year old.

**Links and associations** are equally important. These are key words and phrases that are high yield in terms of likelihood of appearing on the boards, not necessarily because they are that important clinically, but rather because they are easy to write questions about. Links and associations can be of various types. Some examples are provided below.

- **Geographic**
  - New England - lyme disease
  - Western U.S. - coccidiomycosis
  - Central U.S. – histoplasmosis

- **Seasonal links**
  - summer- enteroviruses
  - winter- rotavirus, RSV, influenza

- **Symptoms**
  - paroxysmal cough - pertussis
  - tearing chest pain – aortic dissection

- **Diseases**
  - aniridia and Wilm’s tumor

- **Diagnostic tests**
  - boot shaped heart on CXR and Tetralogy of Fallot
As you study, look for these links and associations and consider taking brief notes on ones that are hard to remember. You can then study these notes in the last day or two before the exam.

E. Concentrate on areas of weakness. Don’t study things you know well.

F. You probably should not underline or highlight as it slows reading by as much as 80%.

G. Don’t read every word! Focus on areas that you think may be addressed in the exam.

III. The 24 Hours before the Exam

- Get plenty of rest.
- Make sure your alarm clock works.
- Review the instructions for the exam. (see below - The Pediatric Board Exam)
- Review test taking strategies
- Review final study notes if you have prepared them.
- Do not read your horoscope.

IV. The Pediatric Board Exam

- The exam is administered at Prometric testing centers over one day in four blocks, each one and three quarters hours in length. The exam consists of a total of approximately 330 to 350 questions. The format of the questions is single best answer multiple choice.

V. Taking the Exam

- Eat a good breakfast.
- Wear comfortable clothes.
- Arrive at least 30 minutes before your scheduled exam time. Bring an approved photo ID. Following are the only items which you will be allowed to bring into the testing area. Your photo ID, your storage locker key, soft earplugs, center-supplied tissues, and center-supplied note boards and markers. All other items must be stored in storage lockers at the exam site.
- Try to approach the test as a positive challenge.

A. You should have sufficient time to finish the exam. It is not a test of speed. Pace yourself. Check the time periodically to make sure you are moving quickly enough.
B. For the long clinical vignette questions, consider reading the question at the end of the stem (and scan the answers) before reading the vignette.

C. If you don’t know the answer to a question, you may want to skip it. Don’t let a difficult question or a temporary memory block panic you. You should have plenty of time to come back to the question later.

D. Remember that there is no penalty for guessing. Your score is based on the number of items that you answer correctly. Try to answer every question.

E. Recheck your answers if you have time, but only change answers if you have a good reason. Your first instinct is often correct.

F. Remember that you are trying to select the best answer of those available. Don’t get upset if you think there is a better answer that is not included as an option. The exam questions were written at least a year ago and will not incorporate very new information or technology.

G. Don’t read too much into questions. They’re not usually trying to trick you.

H. In the clinical scenario questions, questions will often be testing something more than the specific information that is being addressed in the question. You need to consider the psychology of the question writers. What are they really trying to test?

The following themes are often tested again and again:

1. Recognize when something is normal and requires no intervention. Often seen in questions about behavior. Examples:
   - child with breath holding spells - no intervention needed
   - child with presumed toxic synovitis - no tests required
   - self-exploration of genitals in a 3-year old - normal behavior

2. Recognize when something needs to be done urgently. With very sick patients, don’t forget Airway, Breathing and Circulation.
Example:
Child with probable epiglottitis. No exam, no x-rays, no
bloodwork. Needs to go to OR first for intubation by
ENT.

3. Provide care that is cost effective and minimizes risks of
invasive procedures. Know when tests are not needed, i.e.,
when the clinical diagnosis is fairly certain.
Remember, history and physical exam are inexpensive and
noninvasive.
Example:
- 7 year-old previously well functioning child now having
behavior problems at home and school.
Obtaining a good social history, i.e. stresses at home, is
a better choice than developmental testing or referral
to a psychologist.
When evaluating what test is indicated, consider
information it will provide, the cost, and the risk
associated with the test.

L. For multiple choice questions, use the following only if you have no
better way to answer the question.
   1. All of the above is often correct.
   2. None of the above is rarely correct.
   3. Specific determiner like never and always are rarely correct.
   4. An option that is longer or more qualified is more likely to
      be correct.

M. Remember your links and associations and pattern recognition.
Clinical information in the questions is usually provided for a
reason.

N. Don’t give up if you have little immediate idea of what the answer
is!

Try first to use a logical approach:
   1. Eliminate any options that are not reasonable.
   2. If you can get it down to two or three possible choices
evaluate each one using different strategies. The more paths
that point to one answer, the more likely that answer is
correct.

Examples of ways to find paths to the answer:
- Choose common diseases over rare ones unless
  compelling evidence points to the rarer one.
• Age of presentation, does this fit one better than the other?
• Use your knowledge of pathophysiology to reason out whether one answer sounds more reasonable.
• When choosing between two possible answers for a question that involves a clinical vignette, ask yourself if this is the “story” they would use if either one of the answers were correct. You are sometimes trying to identify the last wrong answer rather than finding the correct one.

O. Finally, don’t give up if you still have little idea of what the answer is. Look for the answer that is most different. Look for a common thread that links four of the answers.

The following questions illustrate the point:
1. Which of the following animals won’t eat turnips even if very hungry?
   1. lion
   2. coyote
   3. bear
   4. shark
   5. hyena

2. Which of the following …?
   1. □
   2. △
   3. □
   4. ◆
   5. ▽
3. In a jaundiced infant, which of the following is likely to be accompanied by an elevated serum porcelain level?

1. G6PD deficiency
2. Beta Thallasemia
3. Biliary atresia
4. Spherocytosis
5. ABO incompatibility

4. It is important to note that using this approach will not always result in the correct answer. For example:

Which of the following diseases is least likely to cause jaundice in a baby less than 2 months of age?

1. spherocytosis
2. ABO incompatibility
3. sickle cell disease
4. pyruvate kinase deficiency
5. biliary atresia

5. A real scenario:

A patient presents with a history of epistaxis and prolonged bleeding from cuts and after losing deciduous teeth. Which of the following is not a likely cause of the problem?

1. platelet storage pool deficiency
2. Von Willebrand disease
3. hemophilia
4. ITP
5. leukemia

6. A 14-year-old boy presents with short stature. His heights over the past 5 years have been slightly below, but parallel to, the 5th %ile. On physical examination, there is evidence of very early puberty. His midparental target height is at the 50th %ile, and his bone age is delayed by 2.5 years. The most likely diagnosis is?

1. Hashimoto’s thyroiditis (hypothyroidism)
2. Growth hormone deficiency
3. Crohn’s disease
4. Familial short stature
5. Constitutional delay
7. Which of the following statements is true about girls with Turner syndrome?

1. A webbed neck occurs in most affected girls
2. The most common form of congenital heart disease in this syndrome is coarctation of the aorta.
3. As many as 50% of affected girls have no stigmata except short stature and ovarian failure
4. Growth hormone therapy is not useful
5. All patients have a 45,X karyotype

8. A child is being evaluated for possible nutritional deficiency. He has had poor growth, frequent infections, photophobia, and conjunctivitis. The most likely deficiency is:

1. Vitamin A
2. Vitamin B6
3. Folate
4. Zinc
5. Selenium

9. A 10-year-old boy had a 2-month history of loose stools which were mixed with blood. Two weeks ago he developed a perianal fistula. Colonoscopy showed a normal-appearing rectum, but the remainder of the colon was diffusely inflamed. The most likely diagnosis is:

1. Crohn’s disease
2. Ulcerative colitis
3. Unclassified colitis
4. Behcet’s Disease
5. Allergic colitis
10. You are consulted by the Obstetrical Service to talk with a mother who has ruptured membranes and is having irregular contractions at 28 weeks gestation. Which of the following statements would you include in your discussion about antenatal corticosteroids?

1. Antenatal steroids should always be offered to women in preterm labor.
2. Antenatal steroids are only effective if given more than 24 hours before delivery.
3. No long-term adverse effects on the newborn have been reported in the current medical literature.
4. Antenatal steroids are not necessary because of the administration of pulmonary surfactant to infants with hyaline membrane disease.

11. A 4-month-old is seen for WCC. Swelling of the right side of the scrotum is present, which mother says has been present from birth. It transilluminates well and is nontender. The most appropriate approach is:

1. Urgent referral to surgeon
2. Referral to surgeon within one week
3. Ultrasound
4. KUB
5. Observation

12. A 14-year-old is seen at night in the ER with acute onset (2 hours) of right testicular pain. The right testis is higher than the left and is swollen and tender. Cremasteric reflex is absent. The most appropriate next step is:

1. Urgent referral to urology
2. Referral to urology in the morning
3. Observation
4. Begin antibiotics
5. CBC and RUA
13. Which of the following statements regarding sexual abuse is true:

1. The child should always be examined without the parents present
2. If the abuse occurred in the last 6 days, the child must be examined immediately
3. Labial adhesions are strongly indicative of sexual abuse
4. The hymen will appear normal in most cases of sexual abuse

14. During a 2-year checkup, the mother expressed concern about bruises on her child. On exam, he is found to have 5 small bruises on his shins and a small bruise on his forehead. The next step that should be taken is:

1. Order a PT/PTT
2. Order a bleeding time
3. Order a platelet count
4. Take a careful history about potential abuse
5. Reassure the mother that this is normal

VI. Best of luck!!!