

MOC Questions

Management of Sport-Related Concussion

Question: A 16 yo adolescent diagnosed with a concussion has persistent symptoms despite staying home from school, avoiding exercising, and lying in his room all day since the injury occurred 15 days ago. Assuming the diagnosis of concussion is correct, what would be the most appropriate recommendation:

Answers:

- a) Restrict activities further, as the current amount of rest has proven insufficient
- b) Arrange for home tutoring and a prolonged absence from school
- c) Gradually resume cognitive and non-risk, non-contact physical activity as tolerated
- d) Refer the patient for craniosacral therapy

Feedback: The correct answer is C, gradually resume cognitive and non-risk, non-contact physical activity as tolerated.

This reflects the latest guidelines from the international conference on concussion in sport and based on emerging literature showing that: 1) Restrictions on activities, even in the absence of a concussion, cause symptoms that mimic those of concussion. 2) As time since injury increases after a concussion, somatic symptoms resolve while emotional symptoms increase. This is unlikely to reflect concussion pathophysiology and more likely to reflect physical deconditioning, social isolation, and emotional stress. 3) The symptoms of those who are returned to normal, non-risk, non-contact activity after a concussion resolve faster than those

Work-up and Imaging of Infants with Febrile UTI

Question: Which of the following laboratory findings meets the strict definition of a urinary tract infection according to the 2011 AAP guidelines on evaluation of children with a febrile UTI?

Answers:

- a) urine culture with >100,000 cfu E. coli, without urinalysis
- b) urinalysis with 2 wbc/hpf and urine culture with >100,000 cfu Klebsiella
- c) urinalysis with 25 wbc/hpf and urine culture with no growth
- d) urinalysis with 1+ leukocyte esterase and urine culture with >50,000 cfu E. coli
- e) urinalysis with 25 wbc and urine culture with 10,000 cfu E. coli

Feedback: The correct answer is D.

The AAP guidelines define a urinary tract infection as a urine culture with >50,000 cfu of a single organism AND an urinalysis with pyuria (positive leukocyte esterase or > 5 wbc/hpf).

Genetics Primer for the PCP

Question: A 2 year old female is brought for evaluation by her mother with the chief complaint that “Her shirts do not fit over her belly, and she is now wearing the same shirt size as her 6 year old sister.” On examination you find marked hepatomegaly. These following statements are all true **EXCEPT**:

Answers:

- a) Metabolic liver diseases may be treatable with special diet or enzyme therapy.
- b) Metabolic storage diseases would be ruled out if the newborn screen was normal.
- c) You should inquire about hypoglycemia and muscle symptoms.
- d) Eye examination may be informative to guide the differential diagnosis.
- e) You should inquire about developmental delay and regression.

Feedback: The correct answer is B.

Newborn screening is primarily for small molecule disorders and includes amino acid and acylcarnitine panels. Some states are starting to add on specific storage diseases but this whole category of disease cannot be ruled out. Genetics/Metabolism evaluation could help to guide workup for metabolic storage disease. Enzyme therapy is available for some lysosomal storage diseases, whereas dietary treatment is appropriate for some metabolic liver diseases including some glycogen storage diseases, galactosemia, and tyrosinemia. Hypoglycemia and muscle symptoms may suggest a liver-type glycogen storage disease. Eye examination may demonstrate helpful findings such as corneal clouding in mucopolysaccharidosis (MPS) type 1 (Hurler Syndrome). Developmental delay with regression suggests the possibility of a storage disorder involving the brain caused by gradual accumulation of storage material.

Approach to Transgender Youth

Question: A 17-year-old transgender male (assigned female, affirmed male) presents to your clinic. He requests the use of male pronouns. He has been working with a mental health provider on issues surrounding his gender dysphoria and is exploring if he wants to start testosterone. He had menarche at 12 years of age and is very distressed by menstruation and would like to explore options to stop his menses. They have been no concerns about the frequency or severity of the menstrual period to suggest underlying pathology. Of the following, the BEST treatment option for this patient is

Answers:

- a) Watchful waiting as menstrual suppression is not indicated
- b) Combined oral contraceptive pill such as ethinyl estradiol-norgestimate
- c) Progestin-only pill such as norethindrone acetate
- d) Copper-containing IUD

Feedback: Correct answer C.

Uterine bleeding is often a major source of distress and worsening gender dysphoria symptoms in individuals identifying as transmales. Initiation of testosterone leads to menstrual suppression typically by six months on therapy but is not desired by all individuals. This individual would benefit from a progestin-only pill such as norethindrone acetate (Micronor) 0.35 mg or norethindrone (Aygestin) 5-15 mg orally daily (option C). While combined estrogen-progestin pills may be more effective in leading to menstrual suppression, many transmen do want to be receiving estrogen-predominant therapies and

some practitioners consider this a relative contraindication in a transmale (option C). Option D is not correct as this can lead to worsening bleeding. Option A is not correct as this individual is distressed by their menstrual period and is risk for self-harming behaviors when uterine bleeding occurs and there is no evaluation warranted to exclude underlying pathology before treatment is initiated.