1. Name and discuss 5 important risks factors associated with premature birth.

2a. What are the 3 most common neonatal infections and their treatments?

b. What are the signs and symptoms of Grp B infection?

c. How would you differentiate neonatal gonococcal vs chlamydial infection?

3. Name the hallmark signs (top 4) of fetal alcohol syndrome.

4. Compare and contrast the clinical features and complications for diabetes mellitus and Beckwith-Wiedeman syndrome.

5. a. Discuss the clinical presentation and consequences of diseases in the TORCH complex.

b. What is the toxo triad? (symptoms)

6. Compare and contrast the presentation, diagnosis, and management of the following: duodenal atresia -
   pyloric stenosis -
   esophageal-tracheal fistula -
   Vater's syndrome -

7. Discuss the work-up of neonatal jaundice and its possible etiologies.

8a. Compare and contrast human vs cows milk.

b. When is human breast milk contraindicated?

9. What is the drug of choice for newborns in drug withdrawal?

10. Name the most important neonatal screening tests and discuss management if positive.

11. Compare and contrast presentation and management of Erbs vs Klumpke's Palsy.
1. Describe the presentation and treatment for the following seizures:
   - Tonic-Clonic (Grand Mal) -
   - Absence (Petit Mal) -
   - Simple Partial -
   - Complex Partial -
   - Febrile -

2. Name and describe the important presenting symptoms and treatment for 2 major infratentorial brain tumors.

3. Discuss the pathophysiology, clinical symptoms, and management of Duchenne's muscular dystrophy.

4. a. At what age does neuroblastoma occur and where in the body is it usually found?
   b. Describe the staging used for neuroblastoma.

5. Compare and contrast Eaton Lambert vs myasthenia gravis.

6. Describe the major diagnostic feature(s) of the following conditions:
   - Werdnig-Hoffman -
   - Kugelberg-Welander -
   - Sturge-Weber -
   - tuberous sclerosis -
   - Von Hippel-Lindau -
   - Gaucher's -
   - Nieman-Pick's -
   - Lesch-Nyan -
   - Tay-Sach's -
   - Sandoff's -

7. Compare Hunter's vs Hurler's Syndrome pathology and diagnosis.

8. How do you work-up microcephaly?

9. Describe the pathology of communicating vs non-communication hydrocephalus.
DEVELOPMENTAL

1. How would you work up "failure to thrive"?

2. When do the following developmental milestones occur:
   - social smile -
   - roll over -
   - crawl -
   - sit unaided -
   - stranger anxiety -
   - walking -
   - lift head -
   - reach for and grab and object -
   - support head while sitting up -
   - track object 180° -

3. What are the following reflexes and when do they appear and disappear:
   - rooting -
   - moro -
   - tonic-neck -
   - palmar grasp -

4. What are the Piaget stages?

5. Give the proper schedule for the following vaccinations:
   - DPT -
   - OPV -
   - H. Flu. -
   - MMR -
   - Hep. B -

6. Describe the Tanner stages for pubertal development in boys and girls.

7. Describe the normal growth pattern of the following during the first two years of life:
   - height -
   - weight -
   - head circumference -

8. Match the following conditions with their cardiac abnormality:

   Turner's Syndrome _d__  a. cardiomegaly and decreased PR interval
   Kawasaki Disease _g__  b. cardiomyopathy and adrenal problems
   Trisomy 21 _j__  c. myocarditis and arrhythmias
   Marfan's Syndrome _f__  d. coarctation of the aorta
   DiGeorge Syndrome _h__  e. valvular disease, X-linked
   Hunter's Syndrome _e__  f. AR/MR/aortic dissection
   Pompe's Disease _a__  g. coronary artery aneurysm
   Fredericks Ataxia _b__  h. truncus arteriosus
   Lyme Disease _c__  i. transposition of the great vessels
   j. osteum primum
   k. osteum secundum
1. Compare and contrast the toxicity and treatment of an overdose with acetaminophen vs salicylates.

2. Name some contraindications for emesis and/or gastric lavage.

3. Describe the clinical stages of iron toxicity and possible treatments.

4a. Name three general poisoning therapies and contraindications for each.

b. Name 5 poisonings that don't benefit from treatment with activated charcoal.

5. Describe the classic presentation of patients following acid or alkali ingestion. What is the best way to manage these patients?

6. What is the treatment for CO poisoning?

7a. What are the symptoms of a patient with lead poisoning?

b. What diagnostic procedure is contraindicated if you suspect lead poisoning?

8. What is the treatment for digoxin toxicity?

9. What is the treatment for antidepressant overdose?

10. Compare and contrast major characteristics of type I, II, & IV renal tubular acidosis.

11. What are the most common causes of acute renal failure in the pediatric population?

12. Name the key differentiating feature for the following:
   Berger's - Post-strep glomerulonephritis -
   Alport's - SLE nephritis -
   Goodpastures - MPGN -
   RPGN -
1. What are the major etiological and clinical features of Cystic Fibrosis?

2. Compare and contrast the clinical features of croup vs epiglottitis vs retropharyngeal abscess.

3. Compare and contrast kwashiorkor vs marasmus.

4. What is a Bochdalek and a Morgagni hernia?

5. Give the major clinical findings with deficiencies of the following:
   - Vitamin A -
   - Vitamin D -
   - Vitamin K -
   - Zinc -
   - Selenium -

6. What is the primary pathology and give the clinical picture of the following:
   - Bruton's agammaglobulinemia -
   - DiGeorge Syndrome -
   - Wiskott Aldrich Syndrome -
   - Ataxia Telangetasia -
   - Chronic Granulomatous disease -
   - Severe Combined Immunodeficiency disease -
   - Chediak-Higashi disease -

7. Make a table of the four types of hypersensitivity reactions.

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<thead>
<tr>
<th>Type</th>
<th>Ig</th>
<th>Example</th>
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8. What are the possible signs & symptoms of Celiac Disease? How is it diagnosed?

9. Name the enzyme deficiency for the following syndromes:
   - Hunter's -
   - Hurler's -
   - Wilson's Disease -
   - Phenylketonuria -
   - Familial hyperlipidemia (I) -
   - Familial hyperlipidemia (IIa) -
   - Von Gierke's -
   - Pompe's -
   - Cori's -
   - Anderson's -
   - McArdle's -
   - Her's -
10. Discuss the important clinical features and treatment of Henoch Schonlein Purpura. (PANDAA)

11. Contrast the clinical picture of rubeolla, rubella, mumps, and scarlet fever.

12a. Compare and contrast the clinical picture and treatment of the following:
   - Kawasaki's disease -
   - Toxic shock syndrome -
   - Scarlet fever -
   - Lyme disease -
   - Meningococcemia -

   b. Name 2 conditions that can give strawberry tongue.

13. What are the Jones criteria of rheumatic heart disease.

14. Name up to 4 distinguishing features for the following congenital heart diseases:
   - tetralogy of Fallot -
   - transposition of the great vessels -
   - tricuspid atresia -
   - truncus arteriosis -
   - total anomalous pulmonary atresia -

15. What are the criteria for diagnosis of anorexia nervosa? How does it differ from bulimia?
1. Describe the clinical presentation of testicular feminization.

2. Discuss syndromes associated with delayed puberty vs precocious puberty.

3a. Describe the clinical features and how you would diagnose hypercortisolism.
   b. What is the most common cause of congenital adrenal hyperplasia?

4. What are the clinical signs of adrenal insufficiency?

5. Discuss three treatment options for hyperthyroidism.

6. Give the important clinical features of the following:
   21\[OH]ase deficiency -
   17\[OH]ase deficiency -
   11\[OH]ase deficiency -


8a. How does growth hormone deficiency present and how would you diagnose it to be sure?
   b. How would you work up a child with "short stature"?

9. Match the following syndromes with the appropriate clinical manifestations:
   1. Beckwith-Wiedemann --- C --- A. diabetes/retinitis pigmentosa
   2. Marfan's --- E --- B. endocardial cushion defect/Alzheimer's
   3. Prader-Willi --- G --- C. macroglossia/omphalocele
   4. Homocysteinuria --- I --- D. anosmia/small stature
   5. Noonan's --- J --- E. lens dislocation upward/cardiomyopathy
   6. Kallman's --- D,H --- F. cafe au lait/multifollicular ovaries
   7. Turner's --- K --- G. paternal inheritance (15q-11)/small hands
   8. Down's --- B,H --- H. midline anomalies
   9. Laurence-Moon-Biedl --- A --- I. lens dislocation downward
   10. Panhypopituitarism --- H --- J. pulmonic stenosis/46XY/mental retardation
HEMATOLOGY/ONCOLOGY

1. What is the clinical presentation, diagnostic features, and management of hereditary spherocytosis?

2. What is the difference in etiology between burr cells and spur cells in acanthocytosis.

3. Name several drugs associated with clinically significant hemolysis in G6PD deficiency. How does it present?

4. Describe the clinical picture and management of the following:
   - Sickle cell anemia (homozygous SS disease)
   - Hemoglobin SC disease
   - Hemoglobin CC disease
   - Thalassemia A
   - Thalassemia B

5. List 5 causes of macro-, micro-, and normocytic anemia.

6. Under what conditions will you see nucleated red cells in the peripheral blood?

7. Describe your approach to diagnosing anemia in the newborn.

8. List the three most common types of childhood malignancies.

9. What is the most common type of leukemia in childhood and when is the peak incidence? What are some unfavorable prognostic indicators for it?

10a. Discuss the characteristics of the most common non-Hodgkins lymphoma in childhood.

   b. What is tumor lysis syndrome?
HEMATOLOGY/ONCOLOGY (cont.)

11. Describe the staging and treatment of Hodgkins lymphoma.

12. Compare and contrast the incidence and clinical characteristics of Wilm's tumor and neuroblastoma.


15. Discuss the presentation, diagnosis and management of ITP vs TTP.

16a. What coagulation factor deficiency will result in a normal PTT but prolonged PT?

b. Make a table:

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<thead>
<tr>
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<th>genetics</th>
<th>BT</th>
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<td>Hemophilia B</td>
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17. Describe clinical presentation, and treatment of folate deficiency compared to B\textsubscript{12} deficiency.

18. Compare and contrast Ewing's sarcoma vs osteosarcoma-- diagnosis and management.