HEMATOLOGIC, IMMUNOLOGIC, AND NEOPLASTIC DISORDERS PRACTICE TEST (SAMPLE)

STUDY GUIDE

SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- Practice answering questions under realistic conditions,
- Improve accuracy and speed,
- Review explanations to strengthen weak areas, and
- Approach the exam with greater confidence.

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

Remember: successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

How to Use This Guide

This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here's how to get the most out of your Examzify study guide:

1. Start with a Diagnostic Review

Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.

2. Study in Short, Focused Sessions

Break your study time into manageable blocks (e.g. 30 – 45 minutes). Review a handful of questions, reflect on the explanations.

3. Learn from the Explanations

After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.

4. Track Your Progress

Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.

5. Simulate the Real Exam

Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.

6. Repeat and Review

Don't just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.

There's no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!

Questions

1. **Doug, 12, experiences frequent nosebleeds, easy bruising, and blood in the urine; his parents discourage him from contact sports due to his condition. Which disorder best explains his symptoms?**

   A. Lymphoma

   B. Hemophilia

   C. Neoplasm

   D. Leukemia

2. **CAR-T cell therapy: concept and approved indications.**

   A. Autologous T cells engineered to express chimeric antigen receptor targeting CD19; approved for relapsed/refractory B-cell ALL and certain B-cell lymphomas

   B. Allogeneic T cells; approved for AML

   C. NK cell therapy; approved for CLL

   D. Monoclonal antibody therapy against CD20

3. **Which laboratory finding will be abnormal in a child with hemophilia?**

   A. The platelet count

   B. The hemoglobin level

   C. The white blood cell count

   D. The partial thromboplastin time (PTT)

4. **Which of the following is a precipitating factor for a sickle cell crisis?**

   A. Fluid overload

   B. Stress

   C. Insomnia

   D. Adherence to antibiotic treatment

5. **For splenic sequestration crisis in sickle cell disease, which treatment is listed?**

   A. Splenectomy is a treatment option

   B. Antibiotics alone are sufficient

   C. No treatment; spontaneous resolution

   D. Iron chelation therapy

6. What is the Lugano classification used for?

A. Staging and response assessment of non-Hodgkin lymphoma (PET-CT-based)

B. Staging and prognosis of multiple myeloma

C. Diagnosis of leukemia

D. Monitoring of solid tumors with CT

7. Aplastic crisis in sickle cell disease is typically triggered by which factor?

A. Triggered by bacterial infection

B. Triggered by Parvovirus B19 infection or depletion of folic acid; profound anemia

C. Mild anemia with no symptoms

D. Splenic sequestration

8. Which item is commonly addressed in post-operative education for osteosarcoma?

A. Amputation care (usually done at joint above the tumor)

B. Do not elevate the stump or hyperflex

C. Control bleeding

D. Chemo side effects such as N/V and hair loss are expected and should be addressed

9. Which leukemia is most common in children?

A. ALL

B. AML

C. CLL

D. CML

10. In the leukemia diagnostic process, which action is appropriate to include?

A. Explaining to the child that his mother can stay with him

B. Discussing the 3-year treatment plan with the family prior to testing or chemotherapy

C. Telling the child that "a needle will be inserted into your back to obtain cerebrospinal fluid"

D. Educating the child and family about the test being done that day

Answers

1. B
2. A
3. D
4. B
5. A
6. A
7. B
8. D
9. A
10. D

Explanations

1. Doug, 12, experiences frequent nosebleeds, easy bruising, and blood in the urine; his parents discourage him from contact sports due to his condition. Which disorder best explains his symptoms?

A. Lymphoma

B. Hemophilia

C. Neoplasm

D. Leukemia

Bleeding that occurs easily—especially frequent nosebleeds and bruising—along with blood in the urine in a young boy points to a inherited defect in the clotting cascade rather than a problem with blood cells. Hemophilia is a deficiency of a coagulation factor (most often factor VIII or IX) that impairs the body's ability to form a stable fibrin clot. Because the clotting process is defective, bleeding after minor injuries can be prolonged and mucosal sites like the nose or urinary tract can ooze. The male patient fits the X-linked pattern of Hemophilia, which is why this tends to present in boys. In contrast, lymphomas or leukemias involve abnormal cell growth and typically present with systemic symptoms and abnormal blood counts rather than a primary problem with clotting factors, making them less likely explanations for this specific bleeding pattern.

2. CAR-T cell therapy: concept and approved indications.

A. Autologous T cells engineered to express chimeric antigen receptor targeting CD19; approved for relapsed/refractory B-cell ALL and certain B-cell lymphomas

B. Allogeneic T cells; approved for AML

C. NK cell therapy; approved for CLL

D. Monoclonal antibody therapy against CD20

CAR-T cell therapy uses a patient's own T cells that are collected, genetically engineered to express a chimeric antigen receptor targeting CD19 on B cells, and then expanded and reinfused after a brief period of lymphodepleting chemotherapy. This engineered receptor lets the T cells recognize and kill malignant B cells with high specificity. CD19 is a common target because it is present on most B-lineage cells, including many malignant ones, making this approach effective across several B-cell cancers. The approved indications reflect its use in relapsed or refractory B-cell acute lymphoblastic leukemia and certain relapsed/refractory B-cell lymphomas after other therapies have failed. It is not a standard treatment for acute myeloid leukemia, chronic lymphocytic leukemia, or other non-B-cell malignancies, and it differs from monoclonal antibody therapies against CD20, which are non-genetic antibody-based approaches rather than T cells engineered to attack the cancer. While most approved CAR-T products use autologous T cells, research into allogeneic CAR-T and other cell types like NK cells is ongoing.

3. Which laboratory finding will be abnormal in a child with hemophilia?

A. The platelet count

B. The hemoglobin level

C. The white blood cell count

D. The partial thromboplastin time (PTT)

Hemophilia is a deficiency of intrinsic pathway coagulation factors (such as factor VIII or IX). The test that reflects this pathway is the partial thromboplastin time (PTT), so when intrinsic factors are lacking, the PTT is prolonged. Platelet count remains normal because platelets and primary hemostasis are not the primary problem in hemophilia, and white blood cell count is not affected by this bleeding disorder. Hemoglobin might decrease with ongoing bleeding, but that is a secondary effect rather than a diagnostic feature. Therefore, the abnormal lab finding you'd expect is an increased PTT.

4. Which of the following is a precipitating factor for a sickle cell crisis?

A. Fluid overload

B. Stress

C. Insomnia

D. Adherence to antibiotic treatment

Stress can trigger a sickle cell crisis because emotional or physical stress activates the sympathetic system, raising metabolic demands and often causing vasoconstriction and relative tissue hypoxia. This combination promotes deoxygenation of hemoglobin S, encouraging its polymerization, which makes red cells rigid and prone to clog small vessels, leading to a vaso-occlusive crisis. Dehydration, infection, and low oxygen levels are classic triggers, while fluid overload doesn't directly promote sickling, insomnia isn't a direct precipitant, and sticking with treatment for infections (antibiotics) helps prevent crises rather than precipitating them.

5. For splenic sequestration crisis in sickle cell disease, which treatment is listed?

A. Splenectomy is a treatment option

B. Antibiotics alone are sufficient

C. No treatment; spontaneous resolution

D. Iron chelation therapy

Splenic sequestration crisis occurs when the spleen suddenly traps a large volume of red blood cells, causing a rapid drop in hemoglobin and potential shock. The goal is to stop the sequestration and prevent recurrence. Splenectomy is a treatment option for patients with recurrent or severe episodes because removing the spleen eliminates the primary site where blood pooling happens, reducing the risk of future crises. The other choices don't address the underlying problem: antibiotics alone don't fix the sequestration since it isn't an infection; doing nothing isn't safe in a crisis; iron chelation therapy treats iron overload from transfusions, not the acute sequestration.

6. What is the Lugano classification used for?

A. Staging and response assessment of non-Hodgkin lymphoma (PET-CT-based)

B. Staging and prognosis of multiple myeloma

C. Diagnosis of leukemia

D. Monitoring of solid tumors with CT

Staging and response assessment of non-Hodgkin lymphoma using PET-CT. The Lugano classification updates older staging systems by using metabolic imaging to stage disease and evaluate treatment response in FDG-avid lymphomas, rather than relying on size measurements alone. It relies on PET-CT results and uses the Deauville five-point scale to interpret metabolic activity, guiding categories such as complete metabolic response, partial metabolic response, stable metabolic disease, or progressive metabolic disease. This approach helps clinicians decide how well therapy is working and whether to continue, modify, or stop treatment. It's specifically for lymphomas and isn't used for diagnosing leukemia, isn't the standard for staging multiple myeloma (which has its own criteria), and isn't the usual method for monitoring solid tumors with CT alone.

7. Aplastic crisis in sickle cell disease is typically triggered by which factor?

A. Triggered by bacterial infection

B. Triggered by Parvovirus B19 infection or depletion of folic acid; profound anemia

C. Mild anemia with no symptoms

D. Splenic sequestration

Aplastic crisis in sickle cell disease happens when red cell production in the bone marrow temporarily shuts down. The classic trigger is Parvovirus B19 infection, which specifically targets erythroid precursor cells and causes a transient pure red cell aplasia. In someone with sickle cell disease, who normally relies on rapid red cell production to compensate for hemolysis, this brief halt leads to a sudden, profound anemia accompanied by a very low reticulocyte count. Folate depletion can worsen anemia in general, but it is not the typical trigger for an aplastic crisis driven by Parvovirus B19. Other SCD complications like splenic sequestration (pooling of cells in the spleen) or infections causing vaso-occlusive symptoms represent different pathophysiologies, not the transient erythroid aplasia seen here.

8. Which item is commonly addressed in post-operative education for osteosarcoma?

A. Amputation care (usually done at joint above the tumor)

B. Do not elevate the stump or hyperflex

C. Control bleeding

D. Chemo side effects such as N/V and hair loss are expected and should be addressed

Postoperative education for osteosarcoma commonly covers chemotherapy side effects, because chemotherapy is a standard part of treatment and patients need to be prepared to recognize and manage what to expect. Nausea and vomiting and hair loss are among the most frequent and distressing effects, so teaching about antiemetic strategies, timing, hydration, and dietary adjustments helps patients stay adherent to therapy and maintain nutrition. Framing these side effects early also opens the door to discuss additional concerns like fatigue, mouth sores, and infection risk due to lowered blood counts, plus when to seek medical help. While wound or stump care and immediate post-op bleeding control are important, the most universally addressed education across osteosarcoma treatments centers on anticipating and coping with chemotherapy-related effects.

9. Which leukemia is most common in children?

A. ALL

B. AML

C. CLL

D. CML

In children, the most common leukemia is acute lymphoblastic leukemia. This reflects that malignant transformation most often involves lymphoid precursor cells in the bone marrow, causing a large proportion of pediatric leukemias to be ALL. The result is a buildup of lymphoblasts that crowds out normal blood cell production, leading to fatigue, infections, and bruising from marrow suppression. Another type, acute myeloid leukemia, does occur in kids but is less frequent than ALL and becomes more common with age. The chronic leukemias (chronic lymphocytic leukemia and chronic myeloid leukemia) are predominantly diseases of adults and are rare in children. So ALL stands out as the most common leukemia in the pediatric population.

10. In the leukemia diagnostic process, which action is appropriate to include?

A. Explaining to the child that his mother can stay with him

B. Discussing the 3-year treatment plan with the family prior to testing or chemotherapy

C. Telling the child that "a needle will be inserted into your back to obtain cerebrospinal fluid"

D. Educating the child and family about the test being done that day

Educating the child and family about the test being done that day is essential. Providing age-appropriate information about what will happen, why the test is needed, what sensations to expect, who will be present, and how long it will take helps the child and family understand the process, participate in informed assent/consent, and reduce anxiety. This immediate, specific education supports cooperation andtrust and invites questions. Other approaches miss the immediate educational need for the procedure itself. Explaining long-term treatment plans before testing can overwhelm, describing an invasive procedure without context can frighten, and simply noting that a parent can stay with the child doesn't give the essential details about the current test.

Next Steps

Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.

As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.

If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at hello@examzify.com.

Or visit your dedicated course page for more study tools and resources:

https://hemaimmunoneoplasticdisorders.examzify.com

We wish you the very best on your exam journey. You've got this!