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

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

VISIT US ONLINE FOR THE FULL VERSION STUDY GUIDE

https://hemaimmunoneoplasticdisorders.examzify.com

Copyright © 2026 by Examzify - A Kaluba Technologies Inc. product.

ALL RIGHTS RESERVED.

No part of this book may be reproduced or transferred in any form or by any means, graphic, electronic, or mechanical, including photocopying, recording, web distribution, taping, or by any information storage retrieval system, without the written permission of the author.

Notice: Examzify makes every reasonable effort to obtain accurate, complete, and timely information about this product from reliable sources.

SAMPLE

Table of Contents

Copyright 1

Table of Contents 2

Introduction 3

How to Use This Guide 4

Questions 5

Answers 8

Explanations 10

Next Steps 15

SAMPLE

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.

SAMPLE

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!

SAMPLE

Questions

SAMPLE

1. In addition to bone pain, which symptom is commonly reported with Ewing sarcoma?

A. Nausea

B. Fever

C. Weight loss

D. Night sweats

2. Which finding is most characteristic of aplastic anemia?

A. Thrombocytosis

B. Elevated reticulocyte count

C. Pancytopenia with hypocellular marrow

D. Increased leukocyte count

3. Normal prothrombin time (PT) range?

A. 5-7 sec

B. 11-15 sec

C. 20-25 sec

D. 30-35 sec

4. Prolonged anemia in pediatric patients may present with which combination?

A. Nailbed deformities, systolic heart murmur or heart failure, growth retardation, and developmental delay

B. Only occurs in neonates

C. Only causes hyperactivity

D. Occurs with no other systemic signs

5. Explain the mechanism and management of heparin-induced thrombocytopenia (HIT).

A. Antibodies form against PF4-heparin complexes activating platelets; management is to stop heparin and start a nonheparin anticoagulant (e.g., argatroban).

B. HIT is due to direct platelet destruction by heparin; continue heparin.

C. HIT is vitamin K deficiency; treat with vitamin K.

D. HIT is an autoimmune hemolytic anemia; treat with steroids.

SAMPLE

6. Tonya is a 16-year-old African American girl with pain in both hands, chest pain, fever, and moderate respiratory distress; she is receiving IV hydration and hydroxyurea. Which disorder does she most likely have?

A. Hemophilia

B. Lymphoma

C. Leukemia

D. Sickle cell disease

7. Features of X-linked agammaglobulinemia: which immunoglobulins are reduced and typical age of presentation?

A. Absence of B cells with markedly reduced all immunoglobulins; presents in infancy with recurrent bacterial infections; treated with IVIG.

B. Overproduction of immunoglobulins causing autoimmune disease.

C. T-cell deficiency with normal B cells.

D. Normal immunoglobulins but decreased light chains.

8. During rounds, a pediatric patient awaiting a bone marrow biopsy has a low reticulocyte count and thrombocytopenia. Which diagnosis is most consistent with these findings?

A. Hemophilia

B. Lymphoma

C. Leukemia

D. Aplastic anemia

9. Rituximab: target and a major infection risk.

A. Anti-CD20 monoclonal antibody; risks include HBV reactivation and infusion reactions

B. Anti-CD3 monoclonal antibody

C. Anti-CD52

D. Anti-CTLA-4

10. Which sport should be encouraged for safe participation after stabilization of a patient with Hemophilia A?

A. Swimming

B. Soccer

C. Basketball

D. Field Hockey

SAMPLE

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. In addition to bone pain, which symptom is commonly reported with Ewing sarcoma?

A. Nausea

B. Fever

C. Weight loss

D. Night sweats

Fever is a common systemic symptom that often accompanies Ewing sarcoma in addition to the localized bone pain. The tumor can provoke an inflammatory response, releasing cytokines that cause fever and a sense of malaise. This makes fever a characteristic accompanying sign, helping distinguish the broader clinical picture from bone-only symptoms. Nausea, weight loss, and night sweats can occur with many illnesses and cancers, but they are not as consistently linked to Ewing sarcoma as fever is. Keep in mind that, especially in children and adolescents, Ewing sarcoma may mimic infections like osteomyelitis when fever is present, which is why a thorough workup with imaging and biopsy is important for accurate diagnosis.

2. Which finding is most characteristic of aplastic anemia?

A. Thrombocytosis

B. Elevated reticulocyte count

C. Pancytopenia with hypocellular marrow

D. Increased leukocyte count

Aplastic anemia involves failure of hematopoietic stem cells, producing pancytopenia from reduced blood cell production and a marrow that is hypocellular with fatty replacement. The hallmark finding is a low RBC, WBC, and platelet count together with scant hematopoietic cells in the bone marrow, i.e., a hypocellular marrow. This explains the low reticulocyte count, since the bone marrow isn't producing new cells. Thrombocytosis would mean too many platelets, which is not seen in aplastic anemia. An elevated reticulocyte count indicates active red cell production (as seen in hemolysis or recovery), not the lack of production seen here. An increased leukocyte count would be leukocytosis, whereas aplastic anemia typically presents with leukopenia.

3. Normal prothrombin time (PT) range?

A. 5-7 sec

B. 11-15 sec

C. 20-25 sec

D. 30-35 sec

Normal prothrombin time reflects the function of the extrinsic pathway and vitamin K–dependent coagulation factors. In healthy individuals, PT falls within about 11 to 15 seconds using common laboratory reagents and instruments. This range can vary slightly between labs, but values in this window are considered normal. PT is prolonged when the extrinsic pathway is impaired or factors II, VII, or X are deficient or inhibited, such as with warfarin therapy, vitamin K deficiency, liver disease, or disseminated intravascular coagulation. Therefore, 11–15 seconds is the typical normal PT range.

SAMPLE

4. Prolonged anemia in pediatric patients may present with which combination?

A. Nailbed deformities, systolic heart murmur or heart failure, growth retardation, and developmental delay

B. Only occurs in neonates

C. Only causes hyperactivity

D. Occurs with no other systemic signs

Prolonged anemia lowers oxygen delivery to tissues, so the body compensates and systemic effects emerge in children. Nailbed deformities like spoon nails can develop with iron deficiency, reflecting chronic nutrient shortage. The heart responds to ongoing anemia by increasing output to meet tissue needs, which can produce a systolic murmur and, if the anemia is severe, progress to heart failure. Over time, chronic iron deficiency can impair growth and neurodevelopment, leading to growth retardation and developmental delay. This combination captures the range of systemic signs you can see with prolonged pediatric anemia. The other options don't fit because anemia isn't restricted to neonates, it doesn't typically cause hyperactivity as a primary feature, and it usually does present with systemic signs rather than none.

5. Explain the mechanism and management of heparin-induced thrombocytopenia (HIT).

A. Antibodies form against PF4-heparin complexes activating platelets; management is to stop heparin and start a nonheparin anticoagulant (e.g., argatroban).

B. HIT is due to direct platelet destruction by heparin; continue heparin.

C. HIT is vitamin K deficiency; treat with vitamin K.

D. HIT is an autoimmune hemolytic anemia; treat with steroids.

Exposure to heparin can trigger an immune reaction where antibodies form against the PF4-heparin complex. These antibodies (usually IgG) bind to platelets via Fc receptors, activating them and causing platelet aggregation with release of procoagulant factors. This leads to a paradoxical combination of thrombocytopenia and a high risk of thrombosis due to increased thrombin generation, often occurring days after exposure or sooner with prior heparin use. Management requires stopping all heparin immediately and switching to a non-heparin anticoagulant, such as a direct thrombin inhibitor (like argatroban) or fondaparinux. Warfarin should be avoided initially; transition to an oral anticoagulant is done only after platelet counts recover. Platelet transfusions are avoided unless there is life-threatening bleeding, because they can promote further thrombosis.

SAMPLE

6. Tonya is a 16-year-old African American girl with pain in both hands, chest pain, fever, and moderate respiratory distress; she is receiving IV hydration and hydroxyurea. Which disorder does she most likely have?

A. Hemophilia

B. Lymphoma

C. Leukemia

D. Sickle cell disease

This question tests recognition of sickle cell disease presenting with a vaso-occlusive crisis and a pulmonary complication. In sickle cell disease, a genetic defect causes hemoglobin S to polymerize when oxygen is low or stress increases, turning red cells into a crescent shape. Those stiff, sickled cells block small blood vessels, causing ischemia and severe pain—often first seen as dactylitis (pain and swelling in the hands). The combination of hand pain, fever, chest pain, and respiratory distress in an African American teenager fits a crisis pattern with acute chest syndrome, a serious SCD complication involving the lungs. Hydroxyurea is used to reduce the frequency and severity of crises by increasing fetal hemoglobin (HbF), which doesn't sickle, thereby decreasing HbS polymerization. Hydration supports hemodynamics and helps reduce blood viscosity during a crisis, complementing disease-modifying therapy. The presentation and the treatment approach align with sickle cell disease rather than other disorders. Hemophilia would be primarily a bleeding problem, more common in males and not characterized by hand dactylitis or acute chest syndromes. Lymphoma and leukemia can cause fever and chest symptoms but do not typically present with the acute hand crisis pattern or the specific role for hydroxyurea used in sickle cell management.

7. Features of X-linked agammaglobulinemia: which immunoglobulins are reduced and typical age of presentation?

A. Absence of B cells with markedly reduced all immunoglobulins; presents in infancy with recurrent bacterial infections; treated with IVIG.

B. Overproduction of immunoglobulins causing autoimmune disease.

C. T-cell deficiency with normal B cells.

D. Normal immunoglobulins but decreased light chains.

X-linked agammaglobulinemia occurs when B cell development is blocked, usually due to a BTK gene defect. Because mature B cells fail to form, there are essentially no B cells in the blood and no plasma cells to produce antibodies, so all immunoglobulin levels (IgG, IgA, IgM) are markedly reduced. Clinically, this becomes evident after maternal IgG wanes, typically in infancy around 6 months to a couple of years, with recurrent bacterial infections of the sinopulmonary tract and ears. Management centers on replacing antibodies with intravenous immunoglobulin to reduce infection risk. This best fits because it describes absence of B cells, pan-hypogammaglobulinemia, infantile presentation, and the use of IVIG. The other choices describe scenarios that don't match X-linked agammaglobulinemia—such as immunoglobulin overproduction with autoimmunity, T-cell–dominant deficiency with normal B cells, or normal immunoglobulins with decreased light chains—which don't reflect the B cell–driven lack of antibodies seen in this condition.

SAMPLE

8. During rounds, a pediatric patient awaiting a bone marrow biopsy has a low reticulocyte count and thrombocytopenia. Which diagnosis is most consistent with these findings?

A. Hemophilia

B. Lymphoma

C. Leukemia

D. Aplastic anemia

Bone marrow underproduction is what this pattern highlights. A low reticulocyte count means the marrow isn't producing enough new red blood cells in response to anemia. Thrombocytopenia shows the platelet-producing line is also suppressed. When both red cell production and platelet production are reduced, the most likely scenario is bone marrow failure, specifically aplastic anemia, where the marrow is hypocellular and cannot generate adequate blood cells, leading to pancytopenia. Hemophilia is a bleeding disorder due to factor deficiency and does not cause reduced reticulocytes or low platelets; red cell production remains intact. Lymphoma or leukemia can also cause cytopenias, but they typically involve abnormal cells in the marrow (blasts or malignant infiltration), and the hallmark patterns differ from the classic marrow failure seen in aplastic anemia.

9. Rituximab: target and a major infection risk.

A. Anti-CD20 monoclonal antibody; risks include HBV reactivation and infusion reactions

B. Anti-CD3 monoclonal antibody

C. Anti-CD52

D. Anti-CTLA-4

Rituximab binds CD20 on mature B cells, leading to B-cell depletion and reduced antibody production. That loss of humoral immunity explains its infection-related risks, especially hepatitis B reactivation in patients with prior exposure, and infusion reactions that can occur with the first doses. The other monoclonal antibodies target different molecules (CD3 on T cells, CD52 on lymphocytes broadly, or CTLA-4) and do not describe rituximab's mechanism or its typical infection risk profile.

10. Which sport should be encouraged for safe participation after stabilization of a patient with Hemophilia A?

A. Swimming

B. Soccer

C. Basketball

D. Field Hockey

The main idea here is choosing activities that minimize the risk of traumatic joint bleeds in someone with Hemophilia A while still allowing safe, structured exercise. After stabilization and with appropriate preventive care (such as factor replacement as needed and supervision), the sport that best fits safe participation is one that can be done with controlled contact, clear rules, and the option to adjust intensity. Basketball fits this role because it is typically played in a controlled indoor setting where coaches can emphasize noncontact techniques, proper landing and stopping mechanics, and avoidance of risky dives or falls. With appropriate prophylaxis, padding, and supervision, players can participate at a tolerable intensity, keep joints protected through strengthening and proprioception work, and have quick access to care if a bleed occurs. In contrast, field hockey and soccer involve more unpredictable contact and collisions that raise the risk of traumatic bleeds, and swimming, while very safe non-contact-wise, may be less aligned with the scenario's practical expectations about the activity mix and supervision in many programs.

SAMPLE

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!

SAMPLE