



# ASCLS Continuing Education

## Clinical Lab Investigations: Case Studies for the Lab Professional Case set #21 – Hematology

### Final Quiz

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Select the single best answer for each of the following multiple-choice questions and record on the answer sheet.

1. In some cases, Follicular Lymphoma is attributed to  $t(14;18)(q32;q21)$ , which creates:
  - a. An increase in CD8 positive T-cells
  - b. An increase in BCL-2 expression
  - c. An increase in IGH allelic expression
  - d. A non-apoptotic IGH protein
2. In Follicular Lymphoma, the CD4:CD8 ratio is:
  - a. Increased which indicates these cells do not affect their immune microenvironment
  - b. Decreased which indicates these cells do not affect their immune microenvironment
  - c. Increased which indicates these cells can alter their immune microenvironment
  - d. Decreased which indicates these cells can alter their immune microenvironment
3. Cells involved in Follicular Lymphoma:
  - a. Are seen in the peripheral blood smear with a notched nucleus
  - b. Are seen with hairy-like projections
  - c. Are not seen in the peripheral blood
  - d. Are not seen in the bone marrow

4. An increase in BCL-2 expression of premature B-cells leads to:
  - a. A DNA damage response
  - b. A non-apoptotic cell
  - c. A cytokine response
  - d. Differentiation into a T-cell
5. A normal centroblast will undergo apoptosis if:
  - a. There is a mutation in the IgV region
  - b. It has high affinity to an antibody
  - c. It shows BCL-2 expression
  - d. It shows BCL-6 expression
6. BCL-6 is known as the:
  - a. Master regulator of memory cells
  - b. Master regulator of the germinal center
  - c. An anti-apoptotic gene
  - d. Naïve premature B-cell
7. Which of the following is true of Grade 3 Follicular Lymphoma?
  - a. Does not require aggressive treatment
  - b. The bone marrow is completely centroblasts
  - c. The lymph node is completely centrocytes
  - d. The lymph node is completely centroblasts
8. The premature B-cell enters the germinal center from the bone marrow as a:
  - a. Centrocyte
  - b. Centroblast
  - c. Naïve premature B-cell
  - d. Memory cell

9. Which of the following laboratory values are seen in Grade 3 Follicular Lymphoma patients?
- a. Lymphocytosis and leukocytosis
  - b. Neutropenia and leukocytosis
  - c. Neutropenia and thrombocytopenia
  - d. Neutrophilia and lymphocytosis
10. Which test is important to diagnosing early stages of Follicular Lymphoma?
- a. Flow cytometry of the liver
  - b. CBC
  - c. Metabolic panel
  - d. Flow cytometry of a lymph node biopsy

Record all answers on the answer sheet. (1) Complete the form below. (2) record your answers. (3) Detach and **mail** your answer sheet with check or money order (**\$15 for ASCLS members, \$25 for non-members**) to:

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**ASCLS Continuing Education Answer Sheet**  
**Clinical Lab Investigations: Case set #21 – Hematology**  
carries **1.0 hours** of continuing education. This form must be received by  
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Multiple Choice Questions

Circle the single best answer for each question

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

Use this section to evaluate the above titled session. Circle the number (**1-low, 5-high**) to indicate your ratings of this program, objectives, and speaker; use one response per line. Please complete this form to fulfill the session requirements.

To what extent:

**Did the author(s) present a knowledgeable, organized, and concise case study?**

1       2       3       4       5

**Did the case studies achieve their printed objectives?**

1       2       3       4       5

**Rate your overall satisfaction with the content of this case study.**

1       2       3       4       5

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