



Learning Scope Questions

1. The first NAT approved by the FDA for donor blood infectious disease testing was a test for:
 - a. HCV.
 - b. HIV-1/HIV-2.
 - c. HIV-1.
 - d. HBV.
2. The first FDA-approved NATs developed by the National Genetics Institute and Roche Molecular Systems Inc. employed:
 - a. real-time PCR.
 - b. TMA.
 - c. reverse-transcriptase PCR.
 - d. bDNA.
3. The COBAS AmpliScreen HIV-1 test includes PCR product detection by:
 - a. Western blotting.
 - b. gel electrophoresis.
 - c. spectrophotometry.
 - d. ethanol precipitation.
4. TMA/HPA technology was developed by:
 - a. the National Genetics Institute.
 - b. Roche Molecular Systems Inc.
 - c. Gen-Probe Inc.
 - d. Kary Mullis.
5. The only FDA-approved test for concurrent detection of HIV, HCV and HBV is:
 - a. COBAS AmpliScreen RT-PCR.
 - b. UltraQual RT-PCR.
 - c. Procleix Ultrio.
 - d. none of the above.
6. So far, the FDA has approved NATs for:
 - a. HCV and HTLV I/II.
 - b. HBV and parvovirus B19.
 - c. HCV and WNV.
 - d. HIV-1/HIV-2.
7. Both AABB and FDA recommended HAV testing be performed as:
 - a. phase 1.
 - b. phase 2.
 - c. phase 1 and 2.
 - d. there are no recommendations with regards to HAV testing.
8. The FDA will not consider NAT of serum for HTLV-I/HTLV-II because of:
 - a. unknown gene sequence.
 - b. high numbers of false negatives.
 - c. low numbers of true positives.
 - d. excellent detection levels with Western blotting.
9. CMV NAT is currently considered by the FDA for approval.
 - a. true
 - b. false
10. AABB has recommended the following be eliminated from screening whole blood donations:
 - a. syphilis.
 - b. HBV.
 - c. WNV.
 - d. HTLV.
11. The largest reduction in the window period due to NAT has been observed for:
 - a. HAV.
 - b. HBV.
 - c. HCV.
 - d. HIV.
12. The residual risk for HIV transmission with NAT and serological testing is approximately:
 - a. 1:100,000 donations.
 - b. 1:230,000 donations.
 - c. 1:1 million donations.
 - d. 1:2 million donations.
13. The residual risk for HCV transmission with NAT and serological testing is approximately:
 - a. 1:100,000 donations.
 - b. 1:230,000 donations.
 - c. 1:1 million donations.
 - d. 1:2 million donations.
14. The main reason for HBV, HCV and HIV transmission through blood transfusion is:
 - a. clerical error.
 - b. donations collected during window period.
 - c. inaccurate responses on donor questionnaire.
 - d. Non-specificity of NAT.
15. What event occurred in 1999 that prompted support for the U.S. to implement NAT blood donor screening?
 - a. discovery of HIV
 - b. discovery of PCR technology
 - c. European requirement of NAT for HCV
 - d. standardization of molecular techniques
16. Disadvantages of pooled NAT in comparison to single sample testing include:
 - a. false negatives due to polymerase inhibitors.
 - b. false negatives due to dilution effect.
 - c. cost of testing and personnel training.
 - d. a and b.
17. Limitations on using single donor samples for NAT include:
 - a. costs related to testing and personnel.
 - b. absence of high throughput automation.
 - c. low sensitivity.
 - d. a and b.
18. AABB issued a recommendation on transitioning from pooled to single donor NAT.
 - a. true
 - b. false
19. BeadChip technology (BioArray Solutions) uses the following:
 - a. RFLP.
 - b. TMA.
 - c. bDNA.
 - d. microarray.
20. The FDA calls NAT testing the most sensitive method currently available for detecting bloodborne viruses.
 - a. true
 - b. false

Registration/Answer Form

Learning Scope Answers (circle response)

- | | | |
|------------|-------------|-------------|
| 1. A B C D | 8. A B C D | 15. A B C D |
| 2. A B C D | 9. A B | 16. A B C D |
| 3. A B C D | 10. A B C D | 17. A B C D |
| 4. A B C D | 11. A B C D | 18. A B |
| 5. A B C D | 12. A B C D | 19. A B C D |
| 6. A B C D | 13. A B C D | 20. A B |
| 7. A B C D | 14. A B C D | |

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Survey Questions

Circle the correct answer:

1. To what extent were the objectives stated at the beginning of the article met?
 - a. completely
 - b. some
 - c. a little
 - d. not met
2. How long did it take you to complete both the reading and the quiz? _____ minutes
 - a. all
 - b. some
 - c. very little
 - d. none
3. How much of this article can you apply in practice?
 - a. all
 - b. some
 - c. very little
 - d. none