



## NAT IN BLOOD SCREENING AROUND THE WORLD

MLO and Northern Illinois University (NIU), DeKalb, IL, are co-sponsors in offering continuing education units (CEUs) for this issue's article on **NAT IN BLOOD SCREENING AROUND THE WORLD**. CEUs or contact hours are granted by the College of Health and Human Sciences at NIU, which has been approved as a provider of continuing education programs in the clinical laboratory sciences by the ASCLS P.A.C.E.® program (Provider No. 0001) and by the American Medical Technologists Institute for Education (Provider No. 121019; Registry No. 0061). Approval as a provider of continuing education programs has been granted by the state of Florida (Provider No. JP0000496). Continuing education credits awarded for successful completion of this test are acceptable for the ASCP Board of Registry Continuing Competence Recognition Program. After reading the articles in the cover story section, answer the following test questions and send your completed test form to NIU along with the nominal fee of \$20. Readers who pass the test successfully (scoring 70% or higher) will receive a certificate for 1 contact hour of P.A.C.E.® credit. Participants should allow four to six weeks for receipt of certificates.

**The fee for this continuing education test is \$20.**

This CE test covers only **NAT IN BLOOD SCREENING AROUND THE WORLD**. The Cover Story published in this month's MLO is peer-reviewed.

Cover story objectives/CE questions prepared by Gail Williams PhD, MT(ASCP)™SBB, Clinical Laboratory Sciences Program, College of Health and Human Sciences, Northern Illinois University, DeKalb, IL.

### CE QUESTIONS

- Approximately, how many blood donations are collected around the world each year?
  - 16,000,000
  - 920,000,000
  - 92,000,000
  - 160,000,000
- Laboratory screening for infectious disease includes \_\_\_\_\_.
  - HIV
  - HBV
  - HCV
  - All the above.
- Compared to 30 years ago, transfusion-transmitted infections have increased worldwide.
  - TRUE
  - FALSE
- In countries not using NATs for testing blood, how many estimated new HBV infections are occurring from blood transfusions?
  - 16,000,000
  - 5,000,000
  - 160,000
  - 92,000,000
- The commonly used NAT for HIV detects viral RNA.
  - TRUE
  - FALSE
- The commonly used NAT for HBV detects viral DNA.
  - TRUE
  - FALSE
- The usual alternative to NAT is \_\_\_\_\_.
  - donor interview
  - growing the virus in cell culture
  - immunoassay for donor antibodies
  - TMA
- A key problem with the alternative method to NAT is \_\_\_\_\_.
  - a short "window period"
  - a long "window period"
  - false positives
  - None of the above.
- Of all the cases of HIV in world, what percentage is from blood transfusion?
  - ~50%
  - ~25%
  - 5% to 10%
  - 1% to 2%
- About how long after HCV infection can the NAT for HCV detect it?
  - One day
  - Five days
  - One month
  - Two months
- In the TMA procedure, lots of copies of \_\_\_\_\_ are generated.
  - RNA
  - DNA
  - RNA and DNA
  - neither RNA nor DNA
- With PCR, lots of copies of \_\_\_\_\_ are generated.
  - RNA
  - DNA
  - both RNA and DNA
  - neither RNA nor DNA
- TMA allows for simultaneous testing of multiple viruses in the same tube.
  - TRUE
  - FALSE

- Which of the following has the fastest turnaround time?
  - PCR
  - TMA
  - immunoassays
  - cell culture

- A problem with using pooled samples for NAT is \_\_\_\_\_.
  - you can screen several donors at once
  - it increases the risk to testing personnel
  - the dilution of viral nucleic acids
  - All of the above.

- TMA is used to screen \_\_\_\_\_ of the U.S. blood supply?
  - 20%
  - 40%
  - 60%
  - 80%

- How much of the blood supply worldwide is tested using non-NAT methods?
  - 20%
  - 40%
  - 60%
  - 80%

- In India, the percentage of the population infected with HBV is \_\_\_\_\_.
  - 4%
  - 0.9%
  - 1%
  - 5%

- In China, an estimated \_\_\_\_\_ people are infected with HIV.
  - 38,000,000
  - 130,000,000
  - 30,000,000
  - 1,000,000

- In China, a pilot program testing blood donations with NAT is currently being evaluated.
  - TRUE
  - FALSE

**MLO's Continuing Education Test is online also.**  
Both the CE test and a convenient payment feature are available through the auspices of Northern Illinois University.  
Go to [www.mlo-online.com/CE.aspx](http://www.mlo-online.com/CE.aspx) to print or to send electronically with payment.

## TEST ANSWER FORM

### CE Test on NAT IN BLOOD SCREENING AROUND THE WORLD April 2011

(This form may be photocopied; it is no longer valid for CEUs after October 31, 2012.)

Circles must be filled in, or test will not be graded.

Shade circles like this: ● Not like this: ⊗

P=Poor; E=Excellent

1. To what extent did the article focus on or clarify the objectives?  
P ① ② ③ ④ ⑤ E

2. To what extent was the article well-organized and readable?  
P ① ② ③ ④ ⑤ E

3. How will you use the CE units?  
 state license  
 recertification  
 employment  
 other

A B C D

- ○ ○ ○
- ○ ○ ○
- ○
- ○ ○ ○
- ○
- ○
- ○ ○ ○
- ○ ○ ○
- ○ ○ ○
- ○ ○ ○
- ○ ○ ○
- ○ ○ ○
- ○ ○ ○
- ○
- ○ ○ ○
- ○ ○ ○
- ○ ○ ○
- ○ ○ ○
- ○ ○ ○
- ○

In order to receive CE licensure credits for Florida, your license number is required. Please provide your Florida license number in the space below:

FL Lic. No. \_\_\_\_\_

**FEE FOR THIS CE TEST IS \$20.**

Make check payable to:  
**Northern Illinois University**  
Fee not refundable or transferable.

Send your check with this form to:  
University Outreach Services  
Northern Illinois University  
DeKalb, IL 60115-2860  
Telephone: 815-753-0031

### PRINT CLEARLY

NAME \_\_\_\_\_

MAILING ADDRESS \_\_\_\_\_ HOME  WORK

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

INSTITUTION/FACILITY \_\_\_\_\_

WORK PHONE \_\_\_\_\_ E-MAIL ADDRESS \_\_\_\_\_