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Introduction to the Core Curriculum on Tuberculosis: What the Clinician Should Know

Sixth Edition 2013

Centers for Disease Control and Prevention
National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
Division of Tuberculosis Elimination
# Introduction to the Core Curriculum on Tuberculosis: What the Clinician Should Know

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About the Core Curriculum on Tuberculosis: 
What the Clinician Should Know

Purpose

The *Core Curriculum on Tuberculosis: What the Clinician Should Know* (*Core Curriculum*) presents information about tuberculosis (TB) for health-care professionals. This document, produced by the Centers for Disease Control and Prevention (CDC) Division of Tuberculosis Elimination (DTBE), updates the 2000 *Core Curriculum*. It is intended for use as a reference manual for clinicians caring for persons with or at high risk for TB disease or infection. In addition, it was designed to be useful in developing educational programs. It is not meant to provide detailed answers to all public health or clinical questions about TB, nor is it meant as a substitute for any specific guidelines. It is anticipated that new guidelines will be published at future dates that will supersede information in the *Core Curriculum*, and these new guidelines will be posted on the CDC DTBE website: [www.cdc.gov/tb](http://www.cdc.gov/tb).

An update on TB for clinicians is critical today. Research to find new treatment regimens and more effective use of current ones continues as multidrug-resistant and extensively drug-resistant TB cases challenge the public health community. The increased complexity of TB and HIV co-infection has required updated guidelines for prevention and treatment. Testing, diagnosis, and patient management and public health practice have also been revised.

Target Audience

The audience for this course includes clinicians who are caring for persons with or at high risk for TB disease or infection.
Goal

The goal of the Core Curriculum is to provide the reader with information about TB. Upon completion of this educational activity, the reader should possess a clear working knowledge of the diagnosis, treatment, and prevention of TB infection and disease.

Materials

The Curriculum

The Core Curriculum includes the following materials:

- Print-based self-study manual with the following 8 chapters:
  » Chapter 1. Overview of Tuberculosis Epidemiology in the United States
  » Chapter 2. Transmission and Pathogenesis of Tuberculosis
  » Chapter 3. Testing for Tuberculosis Infection and Disease
  » Chapter 4. Diagnosis of Tuberculosis
  » Chapter 5. Treatment of Latent Tuberculosis Infection
  » Chapter 6. Treatment of Tuberculosis Disease
  » Chapter 7. Tuberculosis Infection Control
  » Chapter 8. Community Tuberculosis Control
- Each chapter includes
  » Chapter objectives
  » Content topics with study questions
  » Chapter summary
  » References
- Appendix A—Glossary
- Appendix B—Answers to the study questions
- Appendix C—PowerPoint slides
Estimated Time for Completion

The curriculum is designed in a self-study format so that each person can work at his or her own pace. The actual time it takes to complete the Core Curriculum may differ from person to person. Listed below are estimates of the time needed to complete each chapter and the entire 8-chapter course.

**Core Curriculum on Tuberculosis: What the Clinician Should Know**

**Estimated Time for Completion**

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Estimated Time for Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Overview of Tuberculosis Epidemiology in the United States</td>
<td>15 minutes</td>
</tr>
<tr>
<td>2</td>
<td>Transmission and Pathogenesis of Tuberculosis</td>
<td>25 minutes</td>
</tr>
<tr>
<td>3</td>
<td>Testing for Tuberculosis Infection and Disease</td>
<td>45 minutes</td>
</tr>
<tr>
<td>4</td>
<td>Diagnosis of Tuberculosis</td>
<td>50 minutes</td>
</tr>
<tr>
<td>5</td>
<td>Treatment of Latent Tuberculosis Infection</td>
<td>55 minutes</td>
</tr>
<tr>
<td>6</td>
<td>Treatment of Tuberculosis Disease</td>
<td>100 minutes</td>
</tr>
<tr>
<td>7</td>
<td>Tuberculosis Infection Control</td>
<td>65 minutes</td>
</tr>
<tr>
<td>8</td>
<td>Community Tuberculosis Control</td>
<td>35 minutes</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>6 hours and 30 minutes</strong></td>
</tr>
</tbody>
</table>

**Study Questions**

Study questions are included throughout each chapter to provide a review of the content and help the reader apply the content to real-life situations. The format of the questions includes either multiple choice or matching. For each question, select the ONE BEST ANSWER. Answers to the study questions are available in Appendix B.

**PowerPoint Slide Set**

The Core Curriculum is accompanied by a PowerPoint slide set for use in presentations and training programs. Images of the slides are included in Appendix C. The slide set may be downloaded from the CDC DTBE website at [www.cdc.gov/tb](http://www.cdc.gov/tb).

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All copies are free of charge.
Course Objectives

The overall objectives for the entire Core Curriculum are listed below.

- Identify TB disease trends in the United States.
- Describe the transmission and pathogenesis of TB.
- Identify appropriate TB testing methods.
- Describe the five components of a TB medical evaluation.
- Describe LTBI treatment regimens.
- Describe treatment regimens for TB disease.
- List common adverse drug reactions to TB medications.
- Discuss the three levels of an effective TB infection control program.
- Describe the roles and responsibilities for TB control and prevention in the public and private health care sectors.

Continuing Education

Continuing education (CE) is offered free of charge for various professions based on approximately 6.5 hours of instruction. In order to receive CE credit/contact hours, you must complete an exam and course evaluation. No minimum score is necessary to receive credit/contact hours. Upon successful completion of the course, exam, and evaluation, your CE certificate will be issued by CDC Training and Continuing Education Online.

Continuing Education Registration and Test

You can register and take the test for CE credits/contact hours online for the Core Curriculum.

- Origination Date: February 15, 2011
- Renewal Date: February 15, 2013
- Expiration Date: Check the online registration website to determine the expiration date of the CE credits/contact hours.

Continuing Education Credits/Contact Hours

The following CE credits/contact hours are available free of charge for the Core Curriculum:

- **Continuing education units (CEUs)**
  The CDC has been approved as an Authorized Provider by the International Association for Continuing Education and Training (IACET), 1760 Old Meadow Road, Suite 500, McLean, VA 22102. The CDC is authorized by IACET to offer 0.6 ANSI/IACET CEUs for this program.

- **Continuing medical education (CMEs)**
  The CDC is accredited by the Accreditation Council for Continuing Medical Education (ACCME®) to provide continuing medical education for physicians.
The CDC designates this **enduring material** for a maximum of **6.5 AMA PRA Category 1 Credits™**. Physicians should only claim credit commensurate with the extent of their participation in the activity.

- **Continuing nursing education (CNEs)**
The CDC is accredited as a provider of Continuing Nursing Education by the American Nurses Credentialing Center’s Commission on Accreditation.

  This activity provides **6.5** contact hours.

- **Continuing education contact hours in health education (CECH)**
  Sponsored by the CDC, a designated provider of continuing education contact hours (CECH) in health education by the National Commission for Health Education Credentialing, Inc. This program is designed for Certified Health Education Specialists (CHES) and/or Master Certified Health Education Specialists (MCHES) to receive up to **6.5** Category I continuing education contact hours. Maximum advanced level continuing education contact hours available are **0**. CDC provider number **GA0082**.

## Online Registration and Test

To receive continuing education, you must register for this specific course and submit an evaluation at the CDC Training and Continuing Education Online website.

- Go to [www2a.cdc.gov/TCEonline](http://www2a.cdc.gov/TCEonline)
- Log in as a participant. (Note: If you are a first-time user of this online system, you will need to log in as a new participant and create a participant profile.)
  > When you receive your reset password by e-mail, log in as a participant and change the password.
- At Participant Services, click on Search and Register, type a keyword from the course title into the keyword search, such as “Core,” and click View. You can also find the course by typing in the course number. The course number for this activity is **SS1604**.
- Click on the title, *Core Curriculum on Tuberculosis*, select the type of credit/contact hours you wish to receive at the bottom, and click Submit.
- Verify the demographic information and click Submit at the bottom.
- Complete the course evaluation.
- Complete the course posttest (if applicable).
- At Participant Services, click on Certificates and Transcripts and print your continuing education certificate.

For assistance with the online system, call 1(800)-41-TRAIN Monday through Friday from 8:00 AM to 4:00 PM Eastern Standard Time, or e-mail ce@cdc.gov.

## Disclosure Statement

CDC, our planners, and our reviewers wish to disclose they have no financial interests or other relationships with the manufacturers of commercial products, suppliers of commercial services, or commercial supporters. Planners have reviewed content to ensure there is no bias.
Content does not include any discussion of the unlabeled use of a product or a product under investigation with the exception of Levofloxacin, Moxifloxacin, Gatifloxacin, and Rifabutin.

The CDC does not accept commercial support.

**Key Tuberculosis Resources**

**Tuberculosis Reporting, Guidelines, and Recommendations**

Clinicians should immediately contact their state health department if they have a patient with suspected or confirmed TB disease. The health department can assist in providing guidance and overall public health management of the patient. Contact information for each state TB control office can be found at [www.cdc.gov/tb/links/tboffices.htm](http://www.cdc.gov/tb/links/tboffices.htm).

For additional information about TB guidelines and recommendations, contact the following sources:

- CDC DTBE website: [www.cdc.gov/tb](http://www.cdc.gov/tb)
- TB Regional Training and Medical Consultation Centers (RTMCCs): [http://www.cdc.gov/tb/education/rtmc/default.htm](http://www.cdc.gov/tb/education/rtmc/default.htm)
- American Lung Association: [www.lungusa.org/](http://www.lungusa.org/)
- American Thoracic Society: [www.thoracic.org](http://www.thoracic.org)

**Additional Education and Training Resources**

- Find TB Resources website: [www.findtbresources.org](http://www.findtbresources.org)
- TB Regional Training and Medical Consultation Centers product list: [https://sntc.medicine.ufl.edu/rtmccproducts.aspx](https://sntc.medicine.ufl.edu/rtmccproducts.aspx)

**Content Experts**

Content experts included staff from the Centers for Disease Control and Prevention, Division of Tuberculosis Elimination.

**For Additional Information**

For additional information on TB, visit the CDC DTBE website at [www.cdc.gov/tb](http://www.cdc.gov/tb). If you have questions on state-specific TB guidelines, please contact your state TB control office. A list of state TB control offices can be found on the CDC DTBE website at [www.cdc.gov/tb/links/tboffices.htm](http://www.cdc.gov/tb/links/tboffices.htm)