

CDC Laboratory Training - BT Rule out or Refer: Virtual Knowledge Exercise

Beth Hochstedler, Mary DeMartino, Jon DeMartino
and Michael Pentella

University of Iowa and Iowa State Hygienic Laboratory



Background:

- Web-based (virtual) knowledge exercise (VKE) designed to present sentinel laboratorians with an opportunity to safely practice their abilities to recognize and rule out potential agents of bioterrorism(BT agents)
- Case-based scenarios with information to assist in the identification
- Based on ASM Sentinel Level Clinical Laboratory Protocols for Suspected Biological Threat Agents and Emerging Infectious Diseases <https://www.asm.org/index.php/guidelines/sentinel-guidelines>
- Designed to be interactive
- Safety related questions are built into the exercise
- Each exercise has three organisms requiring about 15 min each to complete (45 min total time)

More Specifics:

- In each exercise, at least one of the three is a BT agent and the others are near neighbors
 - Examples of BT agents: *Brucella* species, *Francisella tularensis*, *Yersinia pestis*, *Burkholderia pseudomallei*, *Bacillus anthracis* and *Bacillus cereus* biovar. *Anthraxis*
 - Examples of near neighbors that could pose a challenge to identification: *Acinetobacter lwoffii*, *Haemophilus influenza*, *Pasteurella multocida*, *Burkholderia cepacia* and *Bacillus cereus*

How it works:

- The exercise starts with the presentation of the scenario and sample type
- Resembles working on the microbiology bench
 - Pictures of organisms growing on plates
 - Selection of biochemical(s)
 - Pictures of biochemical reactions
 - Participant selections are captured on a worksheet withing the module for their review
- Participant goes through specimen inoculation etc. to the point of ruling out the suspect agent or calling their PHL to send the isolate for further testing
- After completion, there is a summary describing the results

To Date: This project started in 2012

- Three VKEs have been developed
- The third VKE is now online at CDC training site
- The fourth VKE is in development



A VIRTUAL EXPERIENCE WITH BIOTHREAT AGENTS

cdc.gov/labtraining/btvke

Target Audience: Clinical and veterinary diagnostic laboratorians who perform microbiology testing

These interactive, web-based exercises are designed for all clinical and veterinary diagnostic laboratorians who perform microbiology testing. They provide opportunities to

- Detect and rule-in or rule-out bithreat agents (all-encompassing threats);
- Follow American Society for Microbiology sentinel laboratory protocols; and
- Work safely to prevent exposures.



This slide is available as a post card or electronic pdf for email

CDC Laboratory Training

- CDC Laboratory Training
- Register for Upcoming Courses
- Archived Webinars
- 24/7 Online Training
- External Training Links
- Media
- Help and FAQs
- Contact Us

[CDC](#) > [CDC Laboratory Training](#)

BT Rule Out or Refer: Virtual Knowledge Exercise



Get Email Updates

To receive email updates about this page, enter your email address:

[What's this?](#)

Description	Virtual Knowledge Exercise #3
Title: BT Rule Out or Refer: Virtual Knowledge Exercise Sponsored by the National Laboratory Training Network (NLTN) Duration: 60 minutes per exercise Description: This virtual exercise provides an opportunity for the microbiologist to participate in a series of three virtual case studies using ASM's sentinel laboratory protocols in a safe environment to detect potential bio threat agents. Participants are first presented with a virtual case description and specimen. The participant then selects the media and tests. For each selection, the participant will be provided with images and data to interpret. The participant will then be required to log their interpretations as they work through the ASM protocols. Each of the three virtual case studies is completed once a decision is made to rule out the possibility of a biothreat agent within your laboratory, or by referring the specimen to an LRN reference laboratory. Supervisors may wish to ask their staff to participate in the virtual exercise and review the resulting worksheets in order to document laboratory personnel competency within the area of emergency response. Audience: Individuals working in Laboratory Response Network(LRN) Sentinel Laboratories	Go to Course

Description on the cdc.gov/labtraining/btvke page:

- **Description:** This virtual exercise provides an opportunity for the microbiologist to participate in a series of three virtual case studies using ASM's sentinel laboratory protocols in a safe environment to detect potential bio threat agents. Participants are first presented with a virtual case description and specimen. The participant then selects the media and tests. For each selection, the participant will be provided with images and data to interpret. The participant will then be required to log their interpretations as they work through the ASM protocols. Each of the three virtual case studies is completed once a decision is made to rule out the possibility of a biothreat agent within your laboratory, or by referring the specimen to an LRN reference laboratory.

Supervisors may wish to ask their staff to participate in the virtual exercise and review the resulting worksheets in order to document laboratory personnel competency within the area of emergency response.

Audience: Individuals working in Laboratory Response Network (LRN) Sentinel Laboratories

Credits: Please note that this exercise will not offer CE credit

Health Information for Travi

2017-12545.pdf

CDC Lab Training|Course|Vir

CDC TRAIN - an affiliate

← → ↻ 🔒

train.org/cdctrain/login

☆ ≡ ⚙ 🔔 ⋮

Add to the favorites bar by selecting ☆, or by getting them from another browser. [Import your favorites](#)



CDC TRAIN

Login Name

Password

[Forgot Your Login Name / Password?](#)

Login

☒ Keep me logged in

[Create an Account](#)

CDC TRAIN

Create Login Name

Login name must be unique with letters and numbers only and a minimum of four characters.

Create a Password

Passwords must be at least 6 characters in length with at least one capital letter and one number.

Confirm Password

Your Email Address

Please enter your work email address. If you do not have one, enter your school or personal email.

First Name

Last Name

Time Zone

Zip/Postal Code

Please enter your work Zip/Postal Code. If you do not have one, enter your school or personal Zip/Postal Code.

☐ I agree to all [TRAIN policies](#)

Next Step

Have an account?

[Log In](#)

g them from another browser. [Import your favorites](#)

Classic TRAIN

Notifications **1**Michael **TRAIN**[HOME](#)[COURSE CATALOG](#)[YOUR LEARNING](#)[CALENDAR](#)[HELP](#)

[What do you think of the new site?](#) Your opinion is important to us!

Announcements



[Webinar: Determining Essential Core Competencies for Job Posi-](#)

Join the [Public Health Foundation](#) on [Thursday, June 22, 2017 from 2-3pm EDT](#) for a webinar focused on determining essential Core Competencies for Public Health Professionals (Core Competencies) for job positions within public health organizations. This webinar will introduce a simplified form of the Core Competencies and a process for



1 of 4



Notifications

 [Your profile is incomplete](#)

1 Notification

Your Recent Courses



[Freezer Challenge](#)

This toolkit offers steps public health laboratory professionals can take to reduce energy use, cut operating costs, and make better use of limited storage capacity.

[Acknowledgements](#)

Last Accessed Dec 12, 2013

Your Training Status

**2 COURSES**
TO COMPLETENo
Certificates Obtained

Courses You May Also Like



[Packaging and Shipping Division 6.2 Materials: What](#)

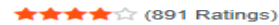
 (2658 Ratings)

Packaging and Shipping Division 6.2 Materials: What the Laboratorian Should Know 2016

Sponsored by the Centers for Disease Control and Prevention



[STEADI: Older Adult Fall Prevention](#)

 (891 Ratings)

This course has Continuing Education available. Continuing education certificates are *not* issued within TRAIN. This course has a verification code at the end of the course. Please retain it for

 Search [Browse Courses](#) [Browse Training Plans](#) [Browse Events](#)

Search for “Virtual Knowledge Exercise”
through Browse Course Catalogue

Use this page to search for any course or document on the TRAIN Learning Network site. The results may be limited by any group you have joined within TRAIN ([see your profile for details](#)).

Filters

Search By ▾

← Any Search By Courses

Format ▾

Affiliate ▾

Common Filters ▾

Subject ▾

Schedule Date ▾

Competencies and Capabilities ▾

Avg. Course Rating ▾

Preparedness and Emergency Response Learning Center (PERLC) ▾

Show Advanced Options

Courses ✕

354 record(s) found.

BT Rule Out or Refer: **Virtual Knowledge Exercise 3**

Web-based Training - Self-study

★★★★★ (2 Ratings)

Virtual Town Hall Meeting: Exploring Competencies for the Emerging Field of Legal Epidemiology (Archived Meeting)

Webstream/Archived Webcast

Virtual Community Reception Center (vCRC)

Web-based Training - Self-study

★★★★★ (57 Ratings)

Pandemic Influenza: Applying the **Knowledge**

Web-based Training - Self-study

★★★★★ (3 Ratings)

The Convention Center Incident: Applying the **Knowledge**

Web-based Training - Self-study

★★★★★ (2 Ratings)

Terrorism in Hawaii: Applying the **Knowledge**

Web-based Training - Self-study

★★★★★ (2 Ratings)

Terrorism in Chicago: Applying the **Knowledge**

Web-based Training - Self-study

★★★★★ (3 Ratings)

Infectious Disease in Hawaii: Applying the **Knowledge**

Web-based Training - Self-study

★★★★★ (2 Ratings)

Cholera in the Pacific: Applying the **Knowledge**

Web-based Training - Self-study

★★★★★ (2 Ratings)

Chemical Weapons in Hawaii: Applying the **Knowledge**

Web-based Training - Self-study

★★★★★ (2 Ratings)

Infectious Disease in Chuuk: Applying the **Knowledge**

Web-based Training - Self-study

★★★★★ (1 Rating)

Tsunami in Sri Lanka: Applying the **Knowledge**

Web-based Training - Self-study

★★★★★ (1 Rating)

Point of Dispensing Planning: Training in a **Virtual World**

Web-based Training - Self-study

★★★★★ (4 Ratings)

Smoking Cessation for Pregnancy and Beyond: A **Virtual Clinic**

Web-based Training - Self-study

BT Rule Out or Refer: Virtual Knowledge Exercise 3

[← Back](#)



[↔ Log In](#)

[Web-based Training - Self-study](#) [ID 1058769](#) [Skill level: Introductory](#)

★★★★★ 5.00 [\(2 Ratings\)](#)

BT Rule Out or Refer: Virtual Knowledge Exercise #3

Description: This virtual exercise provides an opportunity for the microbiologist to participate in a series of three virtual case studies using ASM's sentinel laboratory protocols in a safe environment to detect potential bio threat agents. Participants are first presented with a virtual case description and specimen. The participant then se-
[more](#) ➦

You must be logged onto the site to be able to take this course. Please [log in](#).

[About](#) [Contacts](#) [Reviews](#)

Attributes

Sponsor
CDC - Laboratory Training Team

Subject Areas

Laboratory

Certificates

Generic CDC Certificate

Target Audience

Laboratory Professionals

Languages

English

Future Plans:

- VKE 1 & 2 have been available in the past and are going to be re-released in the near future so that clinical laboratorians can use them at any time
- VKE 3 is now available
- VKE 4 will soon be available
- In the future, VKEs will not stop at ruling out the agent but will go on to complete the identification

What can you do?

- Take the VKE yourself
- Advertise the VKE in your jurisdictions. Send out postcards, emails and include it in your training for clinical laboratorians
- Give us feedback on how to make this better

