CENTERS FOR DISEASE CONTROL & PREVENTION

Moderator: Dale Babcock
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Coordinator: Welcome and thank you for standing by. I would like to remind all parties that your lines have been placed on listen-only until the question and answer portion of today's conference. At that time, if you're wishing to ask a question please press star on your touchtone phone, and please be sure that your telephone is unmuted and clearly record your name at the prompt so that your question may be introduced.

Today's conference is being recorded. If you should have any objections, you may disconnect at this time. It is now my pleasure to introduce your first speaker today Dr. Nancy Gathany. Thank you mam. You may begin.

Dr. Nancy Gathany: Thank you. On behalf of my colleagues, Dr. Douglas Hamilton, Dr. Kathy Towers-Solis, and Valerie Morelli, welcome to this Webinar Ebola Training Toolkit Interview. I'm Dr. Nancy Gathany instructional designer with CDC and I'm the moderator for our Webinar today.

To participate in today's program you'll need a phone connection and a separate Internet connection. Please make note of the following: This Webinar is being recorded, and the recording will be available on the Web within ten

days. And if you have technical trouble, please dial star zero on your phone. And if you would like to ask a question later, please press star one on your phone.

So, our goal today is to provide an overview of the new Ebola Training Toolkit, preparing healthcare workers to work in Ebola treatment units in Africa. The intended audience for the toolkit is organizations that plan to provide in-person training for healthcare workers preparing to work in Ebola treatment units in Africa in response to the Ebola epidemic.

Now, throughout the rest of today's Webinar we'll refer to Ebola treatment units as ETUs. To introduce you to this new toolkit we're going to hear from three experts who had key roles in the development of the toolkit. First, Dr. Hamilton will provide a brief overview and history of the course. Dr. Hamilton has served as a director for CDCs ETU safety training course, and is a subject matter expert with the team developing toolkits.

Dr. Towers-Solis will then introduce the components of the toolkit and show how it is structured. Dr. Towers-Solis served as the course manager for the CDC ETU safety-training course and as the co-lead for the toolkit development. For a closer look at the toolkit, Valerie Morelli will describe the lecture and tabletop exercises, and she will also walk us through the Ebola treatment unit practical exercise component.

Valerie served as the content and clearance manager for the toolkit. Lastly, we'll go back to Dr. Hamilton and he will review the administration component and the steps you can take now towards replicating this in-person training for your organization. These presentations will take approximately 30 minutes in total. At that point, we will then open the lines for the question and answer session.

Now, Dr. Hamilton will now provide an overview of the history and events that led up to the creation of the Ebola treatment training toolkits.

Dr. Douglas Hamilton: Good morning. The 2014 Ebola epidemic is the largest Ebola outbreak in history and the first in West Africa. CDC is working with other U.S. government agencies, Médecins Sans Frontières, the World Health Organization and other domestic and international partners in an unprecedented international response to the outbreak.

In the early days of the response health authorities noted that in the countries most affected by the Ebola outbreak the impact on healthcare workers was severe. The mortality rate among healthcare workers was very high. There is an obvious need for training for healthcare workers going into ETUs to ensure that they understood the type of protective equipment and gear to use, how to use it, and how to stay safe as they administered care to patients with Ebola.

Now, although there have been courses to prepare ETU workers, such as the courses offered by Doctors Without Borders that's the Médecins Sans Frontières or MFS in Belgium, there were not similar courses in the United States to meet this training need. And as the epidemic progressed, more and more workers from the United States were going to Africa to work in the ETUs.

CDC recognized that we needed to offer a training program in the United States that would essentially duplicate the course MSF offer in Belgium. A CDC taskforce was formed to rapidly create a course for healthcare workers going to ETUs in Africa. The taskforce consisted of medical officers, epidemiologists, health educators, and instructional designers.

Now, to get a sense of what the curriculum should include, members of the taskforce traveled to Belgium to take the MFS course. Then, with the full collaboration of MSF and WHO, CDC used their materials that served as the basis for the curriculum. As we developed a curriculum we noted slight differences in the types of personal protective equipment or PPE that the various organizations used.

For example, some organizations used goggles, while others used facemasks for eye protection; some used Tyvek suits, while others used Tychem suits. Therefore, we decided not to teach one specific protocol, but rather to focus on the principals of why you use the various elements of PPE. Our training is not the same as MSF or WHO versions. It's more like an amalgamation of the two.

In our training students learn the principals of high-risk PPE, such as why it's important to protect mucus membranes in your face and how to do that safely. We also emphasize the need to duff or remove your PPE in a certain defined sequence. Once the initial curriculum was designed and implemented, CDC offered the three-day, in-person training course at the training facilities of the U.S. Federal Emergency Management Agency (or FEMA) at their Center of Domestic Preparedness.

Since the launch of this course, titled "Preparing Healthcare Workers To Work In Ebola Treatment Units In Africa," we've trained more than 540 healthcare workers on the principals of infection prevention and control that are needed to work safely in an ETU setting. But this course is not the final stage of ETU training for those healthcare workers.

No matter how lifelike we make our exercises, our training is not the same as training in a real ETU where there's live virus present. Our three-day, in-

person course serves as an introduction to the safe use of high-risk PPEs. Graduates of the course are not prepared to work in an actual ETU until they have a mentored experience in an ETU with an experienced ETU worker.

To ensure the sustainability of this effort to support this outbreak and potential future outbreaks, we created a toolkit that other organizations could use to replicate the training. Now, as you'll see in the Webinar a great deal of effort has gone into the development of this toolkit, which will be available for download from this Web site.

This toolkit is a complete guide with training materials, templates and videos that can help you offer and ETU safety course. However, it is not designed to serve as self-study course for the individual responder who wants to learn how to properly use PPE. As you'll see in the Webinar the toolkit is comprehensive and provides all of the information required to replicate this three-day, in-person course.

Dr. Nancy Gathany: Thank you Dr. Hamilton. Next, Dr. Towers-Solis will introduce you to the components of the toolkit and show you how it is structured.

Dr. Towers-Solis: This training toolkit is designed to help organizations replicate the three-day, in-person training course to prepare healthcare workers to work in ETUs. The goal of the training course is to teach healthcare workers principals of infection, prevention and control to work safely in an ETU setting.

The specific goals of the course are to provide information on the epidemiology and transmission of Ebola virus disease and the current Ebola epidemic, to describe infection, prevention and control principals as they pertain to work in an ETU in Africa, demonstrated the skills to work safely and efficiently in a well-designed ETU, describe how to evaluate personal and

environmental safety when in an ETU, describe the basic principles of clinical care and management of a patient with Ebola, and lastly to describe the patient and community assessment intervention strategies for Ebola treatment and control.

To accomplish our course goals we used blended learning methods to ensure students learn and retain critical knowledge and are able to apply what they have learned to real life situations. The blended learning methods used include lectures, tabletop exercises and hands-on interactive exercises in a mock ETU environment.

The toolkit has three components, course lectures and tabletop exercises, Ebola treatment unit practical exercises and administration. First, the course lectures and tabletop exercises component contains instructional materials needed to deliver the course lectures and tabletop exercises. A brief summary of each lecture and a link to an electronic delivery of the lecture are also provided.

Instructors will lead lectures on topics such as Ebola transmission and epidemiology, clinical care and infection, prevention and control. The interactive tabletop exercises provide opportunities for students to discuss lecture content and how to apply it in ETUs. You will get a closer look at the lectures and tabletop exercises in a moment from Valerie Morelli.

The second component of the toolkit is the Ebola treatment unit practical exercise. This section contains the needed information to create an ETU simulation. Trainer guides, instructional videos and supporting administrative documentation are included. In the mock ETU students apply the concepts they learned in the lectures and in tabletop exercises.

They practice (donning) and (doffing), PPE and performed simulated patient care activities while wearing PPE. Valerie Morelli will review this component of the toolkit later in this Webinar. The final component of the toolkit is administration, which provides the details you will need to conduct the programmatic and administrative requirement needed to plan, develop, manage and evaluate the course.

Dr. Hamilton will review key aspects of this component of conclusion of the Webinar. We have packaged all of these components in digital formats that you can access from the ETU training toolkit Web site once you complete the registration process. The majority of the guidance is contained in one large PDF file. We will show you how you can access the toolkit at the conclusion of the Webinar.

Dr. Nancy Gathany: Thank you Dr. Towers-Solis. Next, Valerie Morelli will provide an overview of the first two components of the toolkit, the course lectures and tabletop exercises, and the ETU practical exercise component.

Valerie Morelli: Thank you Nancy. I will start with the lectures and tabletop component of the toolkit, which contains instructional materials you will need to deliver the lectures and the exercises. It includes presentations and slides for the course lectures and the trainer guides and student worksheets for the tabletop exercises.

There are nine lectures that provide the basic knowledge needed to understand the current Ebola epidemic and response. This includes background information on this epidemic, information on Ebola disease epidemiology and transmission, and key infection prevention and control principals while working safely in ETUs.

Specifically, the toolkit provides the lecture materials in three formats, a thumbnail description in the toolkit, a PowerPoint format and an e-lecture. Let's take a minute to review each of these. The toolkit provides a thumbnail image of each slide and the corresponding script for each lecture. Here we see slides and scripts for the first course lecture overview of the 2014 Ebola epidemic and response.

Of note, as the epidemic evolved you will need to update the slides to reflect the latest case counts and developments. The lectures provide information through December 31, 2014. Therefore, some content presented in the lectures may have changed. We provide information in the written script on where to get the latest updates. As you can see in the notes here several Web sites are provided as reference.

The appendices also provide many links and references that may also be useful. The PowerPoint files include detailed speaker notes that are identical to the text found in the toolkit. We recommend your instructors have subject matter expertise in the topic areas. Therefore, they may choose to rely on the slides but modify the script to meet the needs of your organization.

At a minimum all of your presenters should be able to answer student questions and provide real-life examples to facilitate discussion in the classroom. The last format I want to share with you is the e-lecture. Here you see the first screen of the overview of the 2014 Ebola epidemic and response e-lecture.

The lectures include the entire content of the lecture including both the slides and the audio of the speaker notes. The e-lectures are not designed to serve as self-study lessons. Instructors should play the e-lecture file from a laptop or desktop computer for the students in the classroom. The toolkit includes two

tabletop exercises, designing a safe Ebola treatment unit and triage a person presenting to an ETU.

These exercises built on the knowledge gained from the course lectures and provide students an opportunity to practice applying that knowledge in a classroom setting. The tabletop exercise information in the toolkit includes both the trainer guide and student worksheets. I also want to point out the sectioned appendices.

The appendices include extensive resource links that provide updated information on the current Ebola epidemic, as well as links to health protocols, practices and guidelines used by CDC and other international organizations, including MSF and WHO.

It also includes knowledge assessment questions instructors can use in conjunction with the lectures. What I have share with you today is just a glimpse of what is included in the course lectures and tabletop exercise portion. The goal is that by using the lectures you're students will gain the knowledge they need to work safely in ETUs.

And through the tabletop exercises they apply that knowledge through practice in the classroom. The lectures and tabletop exercises are designed to provide students with fundamental knowledge they need to work safely in the course ETU practical exercise and ultimately in a real ETU setting. I will now move to the second component of the toolkit that provides the information you need to conduct the ETU practical exercise.

This section describes the seven ETU stations we set up, as well as the activities. It also provides information on exercise management, timing, safety, staff roles, preparation for trainers and students and daily trainer

guides. To be most effective students should move through the exercises in small groups. The size of the groups should be based on the facility size and how best to maximize the flow of students through the exercise while ensuring high performance.

In CDCs mock ETUs as seen in these photos, groups are typically four students, students work with a buddy just as they would in a real ETU. Personal safety should be the top priority when working in an ETU, whether in a mock or real ETU setting be rigorously adhering to inspection prevention and control principals taught in the lectures and applying them systematically in the simulation.

Students learn to provide care safely and avoid exposure. To emphasize safety we recommend that you ensure all students have received prior medical clearance. The focus is on assessment and fitness and safety and effectively deploy on an Ebola response. And also ensure compliance with all elements of the OSHA respiratory protection standard.

If your organization is located in the United States and you will be using N95 respirators. This includes fit testing, medical evaluation and healthcare worker training. If your organization is not in the U.S., we strongly encourage you to follow the standard. As you can see by this list a number of staff members are needed for various roles in preparing for and conducting the exercise.

The exercise manager is responsible for overseeing the ETU exercise and students' health and safety. A logistics manager secures and prepares the facility for the ETU exercise. Station trainers are responsible for delivering the station scenario at their assigned station and reinforcing safety principals during the ETU exercise.

Also, support staff assists with the exercises needed. For example, by setting up, removing props, or guiding students from one station or activity to another. Training and student preparation is important for success of this exercise. For trainers we held a pre-course conference call, which described course logistics and the role and expectations of trainers.

We also held an onsite train the trainer session before the course began, as well as daily debriefing sessions for all trainers with the course and exercise managers. For students we held daily meetings before the exercise to promote consistency and readiness. In the ETU practical exercise component you will find a trainer guide containing links to videos of the ETU practical exercise.

The videos illustrate the mock ETU learning environment and supplement the detailed information in the written material. There are links for an introductory video, videos for all seven stations, and a closing video. We've also included a link to a video that illustrates the donning and doffing process for low-risk PPE.

As I noted earlier, the ETU practical exercise has seven stations and multiple activities aimed at helping students to apply the concepts they learned in the lectures and discussion and tabletop exercise, to practice donning and doffing of PPE, and to perform simulated patient care activities while wearing their PPE.

The exercise is designed to be an open, no-fault, non-judgmental environment in which diverse viewpoints can be expressed. Students will respond to various scenarios by using their knowledge and insights and following direction from the trainer. The toolkit includes this important three-day practical exercise at a glance.

This distinct one-page summary will help you visualize the movement through the seven stations and the various activities over the three-day period. I will quickly review the major activities of the ETU practical exercise. The theme for day one is blood and breach. While wearing high-risk PPEs students will draw blood, transport the specimen to the lab and experience a breach in PPE.

On day two the theme is clean and cord. While wearing high-risk PPE students will clean up vomit and dispose of it safely. They will also prepare a corpse for transport to the morgue. And on day three the theme is triage and transport. While wearing low-risk PPE students will triage new patients and determine whether they should be admitted to the ETU.

After changing into high-risk PPE they will transport a patient suspected to have Ebola into the ETU setting. The activities are carried out in the seven ETU stations. Let's quickly walk through each of these. Station one is the entrance to the ETU low-risk zone. The purpose of this station is to prepare students for entering the ETU.

Here the trainer sprays her shoes and the students wash their hands. In station two students change into scrubs and put on rubber boots. Although students are instructed to leave personal belongings outside of the ETU, they may leave any remaining here for retrieval after the exercise.

Station three is briefing. In a real ETU this would be the daily report to prepare healthcare workers for their shifts. The purpose of the daily briefing is to prepare students to perform the day's activities. As I shared earlier there is a different theme each day. For day one, for the blood and bleach the trainer covers information about drawing blood from patients and transporting the specimens to the lab.

For each of the three days of the exercise students will to donn high-risk PPE. Therefore, the purpose of station four is for students to practice supervised donning of high-risk PPE and learn principals of donning PPE correctly. As noted earlier, whether PPE is used for an exercise or in a real ETU there will likely be differences in the PPE items and donning protocol.

However, PPE must always be donned properly to provide adequate protection. Station five includes ten different activities during the three days, keeping your one-page exercise for the glance handy will help you visualize the various activities and the movement from activity to another when in different areas of the ETU, and the mock ETU high-risk zone, which is similar to real ETUs there are two patient areas.

One for patients with suspected Ebola infection and another for patients with confirmed infection. All of the station five activities take place in the ETU high-risk zone, except the triage activity on day three. In station five students learn to prioritize activities and bring needed supplies into the high-risk zone because flow in an ETU is always one way, so prior thought needs to go into all actions.

Safely entering the high-risk zone and move from the suspect area to the confirmed area, and to experience the challenges of performing procedures while wearing high-risk PPE. As noted earlier, the specific activities for the high-risk vary each day. The theme for day one is blood and breach, day two is clean and corpse and for day three triage and transport.

Station six is where students exit the high-risk zone and drop their high-risk PPE. The purpose of this station is for students to learn how to avoid self-contamination while doffing PPE correctly. In this exercise a trainer coaches

and supervises the doffing process. Doffing PPE is a process that should not be done alone in training or in a real ETU.

And finally, at station seven the students participate in a debriefing session with a facilitator. If possible the facilitator should be a healthcare worker who has returned from working in the ETU in West Africa. This person can then share their real-life experiences and address student issues and concerns.

Dr. Nancy Gathany: Thank you very much. Now, we'll ask Dr. Hamilton to conclude the presentations by covering the administration component and the next steps.

Dr. Douglas Hamilton: Thanks Nancy. The administration component of the toolkit provides critical information for course planning, course management, continuing education and course evaluation and more. It provides detailed instructions for the design and set up of the mock ETU, as well as signage and supply needs and information for student recruitment and staff requirements and skills.

As the next step you can start the planning process now. If you've not yet done so you can download the planning materials. The planning materials provide information to help you organize, prepare to offer this three-day course in-person training.

The planning materials describe the physical space, the set up instructions and the supplies needed, as well as the staffing needs to be able to offer this training course. Go to the Ebola training toolkit Web site to register, to access planning materials for the course. Now, at this time the planning materials do not include the entire toolkit.

Once you registered the access supplying materials you'll be notified by email when the entire toolkit is available sometime in the next few weeks. You'll then be able to download the toolkit or receive a hardcopy including the DVDs by postal mail.

Dr. Nancy Gathany: Okay. Thank you. So that concludes the presentation portion of our Webinar. Now, I'd like to invite our listeners to call in and ask questions. To do that, please dial star one on your phone, and tell us your first name and last name, where you're from and I will now turn the mic over to our Operator.

Coordinator: Thank you mam. And once again anyone wishing to ask a question or make a comment, please press star one at this time and record your name clearly at the prompt; one moment please for the first question.

Dr. Nancy Gathany: While we wait for questions I want to be sure you're aware that an archived version of this Webinar will be available at the Ebola training toolkit Web site. The address is shown here on the screen. And while we're waiting for questions we'll share one frequently asked question we've gotten already is are you allowed to make changes to the course materials? Dr. Hamilton? Will you take that?

Dr. Douglas Hamilton: Well we understand that it is probably likely that each organization is going to need to adapt the materials to meet their individual situations and needs. We provide the basic framework and essential training elements, but these materials are presented in such a way that if you need to tweak the PowerPoint slides or adjust them in any way you can.

Dr. Nancy Gathany: Thank you.

Coordinator: Thank you. And we do have one question from the telephone lines. Unfortunately the caller's information did not record, so if you are that person, please check your mute button and introduce yourself. Your line is open.

Dr. Nancy Gathany: Yes. Do you have a question?

Coordinator: And once again if you are the person who pressed star one, please check your mute button and introduce yourself. Your line is open.

Woman: Can you hear me now?

Dr. Nancy Gathany: Yes. We can.

Woman: Thanks. Thank you. I'm experiencing technical difficulty getting onto the visual part of this Webinar and wonder if there will be a follow-up email to provide all of the links to these resources you've just mentioned for those of us who are unable to see them on the Web?

Dr. Nancy Gathany: Yes. We will send out the information to all who have registered. Right now on the screen if you could see it you would see the Web address for the archived version, but we will send that out to all who have registered for today's Webinar, so you'll get it via email.

Woman: Wonderful. Thank you very much.

Dr. Nancy Gathany: Oh, you're very welcome.

Coordinator: Thank you. And once again if we have anyone wishing to ask a question or make a comment, please press star one now, one moment please.

Dr. Douglas Hamilton: It's just so amazingly clear that there are no questions.

Coordinator: And at this time I am showing no questions.

Dr. Nancy Gathany: Wow. Well, we did such a good job answering your questions. I would say that one other question that we have gotten here is an issue that some organizations have is a limitation on the use of paper because organizations are trying to be greener. So I would ask our development team here in the room if they have suggestions on how to go green with this course?

Valerie Morelli: This is Valerie. One of the things we actually were able to do with this CDC course is instead of providing notebooks with all of the comprehensive slides and information we were able to actually put the information on a tablet computer for students to use during the lectures and the tabletop exercises.

And we also put the information on a CD ROM for them to take home. The nice thing about having the tablets is they were able to take notes and then in turn email that to themselves without having to worry about any paper. And try to transport that back as well. And this significantly reduced the number of paper copies required, as well as the time and cost of reproducing materials.

Dr. Nancy Gathany: So are there any questions in the queue?

Coordinator: At this time I'm showing no questions.

Dr. Nancy Gathany: Well we will have this Webinar archived. And we also have a contact us email address showing on the screen. And if we don't have any question, any additional comments from our experts? Well, thank you very much for all of the participants in the call, and we are going to archive this Webinar at the address shown on the screen.

And we have an email address that you can contact us via email. And we ask if you use the toolkit, let us know how it goes. Email us at ebolatrnkit@cdc.gov. And we'll also send out this particular information if any of your other callers have had trouble seeing the visuals via the email to the people who have registered for today's Webinar.

So in closing, having offered the course 15 times with over 540 students so far, we've observed the positive impact that course has on students, as well as the trainers. And we sincerely hope that this toolkit will benefit your organization as you answer the call to help countries care for patients and communities affected by Ebola.

With that, I would like to thank everyone for joining us today, and with special thanks to our subject matter experts, Dr. Hamilton, Dr. Towers-Solis, and Valerie Morelli, and we'd also like to take this time to acknowledge all of those who contributed to the development of the toolkit. As you can see it was a comprehensive package. And it took quite the team to pull this off. So thank you very much from Atlanta and have a great day.

Coordinator: This does conclude today's conference. Thank you so much for joining. You may disconnect at this time.

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