



Project Firstline Session Plans

Topic Twelve: Environmental Cleaning and Disinfection

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Overview of Sessions

The following Session Plans for **Topic Twelve: Environmental Cleaning and Disinfection** are to help guide you, as a provider of the Project Firstline training, with the necessary support to use Project Firstline materials to create well-rounded training events and educate your audience about infection control.

Facilitator Instructions

Choose Your Session

There are three different session lengths for you to choose from based on time available for training:

- 60 minutes (e.g., dedicated training session)
- 20 minutes (e.g., “Lunch and Learn” or agenda add-on)
- 10 minutes (e.g., “micro-learning” or agenda add-on)

Due to time constraints, the 10- and 20-minute sessions will have less opportunity for interactive discussion. We invite you to extend sessions for greater engagement whenever possible. We have also provided recommendations for using chat functions and other activities to draw your audience into the materials when you are limited to only a short amount of time.

These time lengths are not intended to be prescriptive and are instead provided simply as a tool that you may tailor to best match your specific audience and needs. When you schedule your session, use your knowledge of your audience’s availability and learning needs to adapt these materials as needed.

Session Materials

- Four different Session Plans: 60 minutes, 20 minutes, and two 10-minute sessions
- Corresponding PowerPoint slide decks: 60 minutes, 20 minutes, and two 10-minute sessions
- Links to Project Firstline videos: *Inside Infection Control* by CDC’s Project Firstline
- Copies, links, or PDF files: CDC and U.S. Environmental Protection Agency (EPA) resources

Using the Materials

The sample materials are presented in sequence, with the expectation that participants will progress through the series. You may, however, mix and match content to meet participant needs. Following are things to know:

- Use the plans and slides as guides for your presentation.
- The slide numbers in the Session Plans correspond to the companion slide decks provided.
- We encourage you to customize the look and feel of the presentations and to adapt the facilitator script to better match your own voice and audience.
- The time recommendations are provided simply as a guide for the minimum amount of time needed for each section. We encourage you to take more time, as needed, with specific sections.

Conducting a Session

Schedule and announce the sessions according to your organization's needs and requirements. Each session should include at least the following:

- Specific learning objectives
- Presentation of core content
- Opportunities to understand and engage with the key messages for each topic

Each session should also give participants the opportunity to learn more, to understand and connect internally with the content, and to act on their learning and engage with others.

Additional guidance for facilitators and information about other topics covered in the series are provided in the Project Firstline Facilitator Toolkit Guide.

Educational Content Outline

Topic Twelve: Environmental Cleaning and Disinfection

Content Summary: Cleaning and disinfection are important in healthcare because they keep germs away from people and keep infections from spreading. Cleaning removes dirt and some germs from surfaces and objects. Disinfection kills germs on surfaces and objects.

Inside Infection Control Videos:

[Episode 16: Cleaning? Disinfection? What is the Difference?](#)

[Episode 20: Why Do Cleaning and Disinfection Matter in Healthcare?](#)

[Episode 22: Why Does Contact Time Matter for Disinfection?](#)

Inside Infection Control Video Content Outlines: For reference, [content outlines](#) for the videos presented in this session are provided as an appendix to this document.

Learning Objectives

- Describe the difference between cleaning and disinfection.
 - ▶ Cleaning removes the visible dirt, dust, spills, smears, and grime, as well as some germs, from surfaces.
 - ▶ Disinfection kills germs on surfaces or objects.
- Discuss why it is important to follow the label instructions on a disinfectant product.
 - ▶ To know the contact time
 - “Contact time” is the amount of time a disinfectant needs to sit on a surface, without being wiped away or disturbed, in order to do its job of killing germs. It can be challenging in a busy healthcare setting, but it is important to wait for the full contact time to finish to be sure the germs are killed.
 - ▶ To know which surfaces the chemical can be used on
 - ▶ To know which germs the chemical has been proven to kill
 - ▶ To know whether the product should be diluted

Sessions at a Glance

Topic Twelve:

Environmental Cleaning and Disinfection

Session Plans and When to Use:

- 60 minutes (e.g., dedicated training session)
- 20 minutes (e.g., “Lunch and Learn” or agenda add-on)
- 10 minutes (e.g., “micro-learning” or agenda add-on)

Format:

- Online, synchronous

Special Supplies:

- Registration list
- Participant booklet
- Session feedback form
- Timekeeper



60-Minute Session Plan

Facilitator Notes and Sample Scripts

1. Session Start



Slide 1: Opening Slide



Facilitator Notes

Participants log in and get settled.

2. Agenda, Learning Objectives, and Introductions



10 minutes



Slide 2: Agenda



Facilitator Notes

- Welcome the group and add a greeting to the chat box.
- You may adapt the introduction time as needed: spend time on introductions if there are new faces or if group members still do not know each other.
- If this session is part of an ongoing series, you may choose to say “welcome back,” “thank you for joining us again,” etc.
- Announce housekeeping notes, either orally or via chat.
 - ▶ If needed, additional notes specific to the platform you’re using (e.g., how to “raise your hand,” how to post questions).
- Provide an overview of the agenda.



Sample Script



“Welcome to Project Firstline. Thank you for joining us! Before we begin, a few housekeeping notes. We’ll meet today for 1 hour. Please keep your videos on, to the extent possible, and keep your microphone muted when you are not contributing to the discussion. It’s great to see you all here today!

“Today we’ll focus on another essential part of infection control: cleaning and disinfection. **What are they? What is the difference between them? And why do they matter?**”



Slide 3: Learning Objectives



Facilitator Notes

Provide an overview of the session’s learning objectives.



Sample Script

“Here is what we expect to learn today. By the end of today’s training, you will be able to describe the difference between cleaning and disinfection and discuss why it is important to follow the label instructions on a disinfectant product.”



Slide 4: Introductions



Facilitator Notes

- These questions will give you a better understanding of your participants’ backgrounds, experience, and level of knowledge.
- Tailor your slide delivery for the virtual format and platform and your participants:
 - ▶ You may wish to add role- or facility-specific questions to the introductions.
 - ▶ If you have a large group, you may decide to skip oral introductions and use the chat.
 - ▶ If your group meets regularly, you may wish to skip or shorten the introductions, or use a different “icebreaker” approach.
- Be sure to introduce yourself and anyone who is assisting you.



Sample Script

“Let’s take a minute to get to know each other. Please share in 30 seconds or less your name, your role, and whether cleaning and disinfection play a big part, or a smaller part, in your work responsibilities. I’ll start!”



Slide 5: Poll



Facilitator Notes

- Use the poll feature for your platform to ask participants about the definitions of cleaning and disinfection.
 - ▶ *Cleaning is killing germs. Disinfecting is removing dirt and some germs.*
 - ▶ *Disinfecting is a type of cleaning (cleaning with chemicals).*
 - ▶ *Cleaning is a type of disinfecting (disinfecting with soap or detergent).*
 - ▶ *Disinfecting is killing germs. Cleaning is removing dirt and some germs.*
- If the platform you are using does not have a poll feature, you may choose to ask participants to enter their responses in the chat.



Sample Script

“**We clean and we disinfect a lot in healthcare, but what’s the difference?** Let’s do a quick poll. Pick the sentence that best describes cleaning and disinfection.”

(Pause for participants to respond to poll options, and then display poll results.)

“Great! Thanks for doing that. The correct answer is that cleaning removes dust, dirt, and grime, including organic material like blood, and some germs. Disinfection kills germs. We’re going to learn more about cleaning and disinfection today and why they’re so important in healthcare.”

3. Video and Discussion



5 minutes (video 3:49)



Slide 6: Cleaning and Disinfection: What is the Difference?



Facilitator Notes

- The bullet points on the following slides summarize content from Episode 16 of *Inside Infection Control: Cleaning? Disinfection? What's the Difference?* <http://bit.ly/CleanAndDis>. You may wish to refer to the [Content Outline for Episode 16](#) for additional discussion points.
- Help participants think about moments in their daily work when they might clean or disinfect surfaces or objects.
- Encourage participants to make note of their thoughts.



Sample Script

"Let's get started.

"As we watch this episode of *Inside Infection Control* with the CDC's Dr. Abby Carlson, start thinking about your workday. In your participant booklet, jot down instances when it may be important to clean, or disinfect, or both.

"Now let's watch the video to make sure everyone is on the same page."



Slide 7: Video: Cleaning? Disinfection? What is the Difference?

Facilitator Notes



- Access the video here:
CDC Website: <https://www.cdc.gov/infectioncontrol/projectfirstline/videos/Ep16-CLEANING-LoRes.mp4>



- OR
Project Firstline YouTube Playlist: <https://www.youtube.com/watch?v=dluRI9OpjnY>



Slide 8: Definitions



Facilitator Notes

Either allow time for participants to read the definitions themselves or read them aloud.



Sample Script

“As you heard from Dr. Carlson, cleaning *removes* visible dirt, dust, spills, smears, and grime, including organic material like blood, as well as some germs, from surfaces. It’s important to clean before disinfecting because dirt and grime can make disinfectants not work as well. And we need disinfectants to work to *kill* germs on surfaces or objects.

“Did you already know the difference between cleaning and disinfection? Or is there anything about these definitions that was new to you?”

(Acknowledge responses.)



Slide 9: Cleaning and Disinfecting in Healthcare



Facilitator Notes

- Invite participants to return to the thoughts they wrote down about the cleaning and disinfection that they do in their daily work.
- Lead participants in a full-group discussion:
 - ▶ **At the workplace, when do we clean?**
 - ▶ **When do we disinfect?**
 - ▶ **And what objects are cleaned and disinfected?**
- Invite participants to create a table such as the one on the slide in their participant booklets.
- Ask volunteers to share specific examples from their experiences.
 - ▶ Emphasize, when appropriate, how varied the participants’ workplace duties are.
 - ▶ To help build a shared understanding, you may capture responses directly in the table on the slide.
- To support this discussion, you may remind participants that cleaning should happen before disinfection, unless you are using a product designed to do both at the same time. The [Content Outline for Episode 16](#) may be helpful to reinforce other important points.



Sample Script

“Let’s go back to those notes you jotted down before the video about instances in your workday when you might clean, or disinfect, or both. If you like, you can create a table like the one on this slide in your participant booklet. **Let’s fill in this table – would anyone care to share some examples? When do you clean, and when do you disinfect? And what objects and surfaces are cleaned and disinfected?**”

(Allow time for participants to share examples, either by coming off mute or in the chat.)

“Those are great examples – we can see how everyone has different job experiences, but we have a lot in common, too!”

4. Breakout Groups and Discussion



20 minutes



Slide 10: Breakout Groups



Facilitator Notes

- Based on the table, invite one or two participants to respond to the question, either orally or in the chat: **Who cleans different surfaces and items in your facility? What surfaces and items could be missed because everyone assumes someone else is responsible for cleaning them?**
 - ▶ Take this opportunity to reinforce that the entire healthcare team has a role to play in cleaning and disinfection.
 - ▶ Build on the responses to introduce the next activity.
- In small groups, participants will talk through common cleaning and disinfection scenarios in healthcare.
 - ▶ This activity is intended to continue encouraging participants to apply the training concepts to their daily work.
 - ▶ Depending on the makeup of your group, you may wish to provide different scenarios. Please keep in mind:
 - Regardless of your group, include a combination of clinical scenarios (i.e., that involve direct patient care) and non-clinical scenarios. This combination will help your group remember that the entire healthcare team is responsible for a clean environment.
 - Although hand hygiene is an important part of infection control, try to choose scenarios that involve more than hand hygiene.
 - If possible, try not to place participants in breakout rooms according to their job responsibilities or experience: a mix of people considering a scenario will make for richer discussion.
- Use breakout rooms appropriate to your virtual platform to divide participants into groups.
 - ▶ If your webinar platform allows for it, you may invite participants to choose their own breakout room.
 - ▶ Ideally, the groups should have no more than five people each.
 - ▶ The number of participants per group does not need to be exact, but if the breakdown is uneven, be prepared to ask for volunteers to shift groups as needed.
 - ▶ Multiple groups can discuss the same scenario.

- As needed, provide instructions related to the breakout room format, such as how to ask you questions.
- Inform the groups that they have 10 minutes to discuss a scenario.
 - ▶ Ask each to identify a spokesperson who will be willing to report back to the broader group.
- After the small groups have gathered, depending on your virtual platform, you may use the broadcast message feature or another means to send reminders of the scenarios, how much time is remaining, etc. You may also choose to “visit” each group to encourage conversation and to hear their thoughts.



Sample Script

“Let’s think more about the instances in the table that we’ve just created. **In these instances, who does the cleaning and disinfection? Is it done by us or by others on the healthcare team? What surfaces and items might get missed because everyone assumes someone else is responsible for cleaning them? Can anyone share their thoughts?**”

(Pause for responses from one or two volunteers.)

“Thank you for sharing. It’s important for us to think about the whole healthcare team, because we all have a role to play in cleaning and disinfection.

“Now we will spend some time looking deeper at three common scenarios, as shown on the slide. The scenarios are:

- You need an item from a shared cart for a sterile procedure.
- You have finished examining a patient and are writing notes in the patient record.
- You are picking up a patient’s tray after lunch.

“We’re going to divide into small groups to work through one of these scenarios.”

(Provide brief instructions on how to choose a breakout room and any other technical notes.)

“In your small groups, try to identify all the aspects of cleaning and disinfection that are important for infection control in your scenario. Imagine yourself ‘in’ the scene and discuss the following questions:

- **In this scenario, where are the risks for germs to spread?**
- **What questions about cleaning and disinfection should we be asking?**
- **What actions should we take?**

“Even if the scenario for your group is not something you personally perform as part of your job, think about the healthcare team and how everyone works to keep a clean environment.

“I’ll remind you when you have a few minutes left, and when we come back together, one volunteer from your group can report on your discussion. Okay, let’s go!”



Slide 11: Scenarios: Cleaning and Disinfection



Facilitator Notes

- At 10 minutes, begin giving groups a message about their remaining time.
- Reconvene the groups.
- Invite each group to share the highlights of their discussion.
- You may choose to capture key points on a new slide.



Sample Script

“Thank you and welcome back! Now we’ll talk through some of the things that came up in your discussion. **Who would like to speak from Group 1?**”



Slide 12: Questions and Clarifications?



Facilitator Notes

- Briefly open the floor for final thoughts and any questions or areas of confusion.
- If the questions address content that is not covered in this session, please do not attempt to answer the question. Instead, take note of the questions and consult with CDC resources to follow up with answers after the session.



Sample Script

“Great job! Before we move on, I just want to open it up in case, during your discussions, there were any unanswered questions or things that you’d like to clarify.”

5. Discussion: Why Cleaning and Disinfection Matter in Healthcare



5 minutes



Slide 13: Why Cleaning and Disinfection Matter



Facilitator Notes

- The bullet points on the following slides summarize content from Episode 20 of *Inside Infection Control: Why Do Cleaning and Disinfection Matter in Healthcare?* bit.ly/WhyCleanAndDis. You may wish to refer to the [Content Outline for Episode 20](#) for additional discussion points.
- If time allows, feel free to show the video or to share it as an extension activity.



Sample Script

“We’ve talked about the ways that cleaning and disinfection are part of our daily work life and how they work. Remember, cleaning is an important step because, if we try to disinfect something that isn’t clean, the disinfectant might not work. And we need disinfectants to kill germs. Now let’s take a few minutes to talk about *why* this is so important in healthcare.”



Slide 14: Patients May Have Weakened Immune Systems



Facilitator Notes

- This slide has animations for the second column. When you advance to the slide, only the first column will appear.
- After you introduce the concept, ask participants to share, either orally or in the chat, answers to the question, “**Why?**”
- After they provide responses, use the animation to reveal the answers.
- You may wish to refer to the [Content Outline for Episode 20](#) for additional discussion points.



Sample Script

“Cleaning and disinfection are critical in healthcare for many reasons. **It’s common sense that we don’t want a dirty environment for our patients – but why is that? Does anyone have any thoughts?**”

(Pause for responses, then advance to reveal second column.)

“Yes! One reason is because, in healthcare, we have patients who are ill and may not be able to fight off infections as well as someone who is healthy. Germs are more likely to cause problems in these patients because their immune defenses might not be as strong as someone who’s healthy.

“It’s possible to see how some patients might be at risk of infection, such as if they have burns or wounds, or if they’re having a procedure when germs could get into their bodies, such as getting an IV or a catheter. But many patients’ risks for infection can’t be seen, like when a patient’s immune system is weak because of the medication in their cancer treatment.”



Slide 15: The Healthcare Environment Should Be Kept Clean



Facilitator Notes

- This slide has animations for the second column. When you advance to the slide, only the first column will appear.
- After you introduce the concept, ask participants to share, either by coming off mute or via chat, answers to the question, **“Why?”**
- After they provide responses, use the animation to reveal the answers.
- You may wish to refer to the [Content Outline for Episode 20](#) for additional discussion points.



Sample Script

“It’s important to keep the healthcare environment clean to stop germs from spreading. **What are some places that you can think of that need to be cleaned and disinfected often?”**

(Pause for responses, then advance to reveal second column.)

“There are a lot in healthcare! Think about patient rooms. When a patient leaves a room or is discharged, before a new patient goes into that room, it should be cleaned and disinfected to make sure germs don’t spread.

“What about high-touch surfaces?” We also clean and disinfect things that get touched a lot, such as bed rails, keyboards, and light switches. These ‘high-touch surfaces’ need that frequent cleaning and disinfection.

“What else?” It’s also important to clean and disinfect things in healthcare that aren’t touched or shared as often but tend to be dirty and have a lot of germs on them, like toilet seats.”

6. Discussion: Contact Time and Disinfection



10 minutes



Slide 16: What Is Contact Time?



Facilitator Notes

- The bullet points on the following slides summarize content from Episode 22 of *Inside Infection Control: Why Does Contact Time Matter for Disinfection?* bit.ly/WhyContactTime. You may wish to refer to the [Content Outline for Episode 22](#) for additional discussion points.
- If time allows, feel free to show the video or to share it as an extension activity.



Sample Script

“Now we’re going to take a closer look at an important part of disinfection: contact time.”



Slide 17: Definition



Facilitator Notes

- Make sure participants are aware of what contact time is and the other terms that might be used (dwell time, wet time).
- Link the concept of contact time to the reality of cleaning and disinfection at work in healthcare.
- You may wish to tailor this content to your audience, as not all healthcare workers are involved in this work in the same way.
- **EPA List N: Disinfectants for Coronavirus (COVID-19):** <https://www.epa.gov/pesticide-registration/list-n-disinfectants-coronavirus-covid-19>



Sample Script

“First, let’s talk about what contact time is. **Does anyone have any thoughts on how to define it?**”

(Pause for responses.)

“Contact time – also called ‘dwell time’ or ‘wet time’ – is the amount of time a disinfectant needs to sit on a surface, without being wiped away or disturbed, to do its job of killing germs.

“Contact time is important because the product you’re using might not kill germs right away. It takes time before all of the germs are killed and something is truly ‘disinfected.’

“This time can vary depending on the product. But it is always specific, and it should be on the label. Even if you’re using a product that both cleans and disinfects, all in one, it will still have a contact time that you need to use for it to work correctly.

“**Now that we know what it is, what does it mean for our daily work?**”



Slide 18: The Disinfectant Label



Facilitator Notes

- This slide has animations. After participants provide responses, trigger the animation as you go through the script.
- Invite participants to suggest the information on the label of a disinfecting product that’s important to know in order to use it correctly.
 - ▶ As participants respond, either by going off mute or in the chat, guide them through the information found on the product label.
- Remind participants why following label instructions on disinfecting products is important.



Sample Script

“While you can usually judge if something is clean or not just by looking at it, this doesn’t work with disinfection. Because germs are too small for us to see, we can’t judge how well something has been disinfected just by looking at it. That’s why following the instructions when you use disinfecting products is so important.

What information do you need from the label to make sure you're using it correctly?"

(Pause for responses. Prompt first animation.)

"First of all, in healthcare in the United States, you'll use disinfectants that are registered with the Environmental Protection Agency, the EPA. The EPA is charged with reviewing chemicals used for disinfection to make sure that they're safe and effective. Disinfectants used in healthcare facilities will usually have 'hospital-grade,' or something similar, on the label."

(Prompt second, third, and fourth animation.)

"Other things you need to know are which surfaces the chemical can be used on, which germs the chemical has been proven to kill, and whether the product should be diluted. That means if it needs to have water or another substance added to it to bring the concentration down so it's safe for use. If so, the label should also tell you how to do that, and what to use."

(Prompt fifth and final animation.)

"And, of course, the label will tell you the contact time – or dwell time or wet time."



Slide 19: Dos and Don'ts for Disinfection



Facilitator Notes

- Because there is often pressure to move fast in healthcare, this slide is an opportunity to discuss why it is important not to rush the disinfection process.
- Time permitting and if applicable, you may wish to open the floor to invite participants to share instances in their experience in which they have felt hurried.



Sample Script

"We know that we want to use disinfecting products at the right times and correctly. **But what do we not want to do?**

"One of the biggest 'don'ts' is don't rush the process. The entire contact time has to finish before something that's been disinfected can be used again, like shared equipment, or before a new patient comes into a room after the last patient has been discharged. That's how we can be sure the disinfectant has had time to do its job and kill the germs."

“Don’t try to dry a surface that’s been disinfected more quickly by wiping with another cloth, or by blowing on it with your breath. Also, don’t blow air on the surface another way, like with a fan, unless the manufacturer of the product you’re using says it’s okay to.

“Be patient. We know this can be tough. Patients may be waiting for rooms and equipment, and there may be pressure to move fast. But the risk of spreading germs is too great to rush the process. Following the instructions keeps germs from spreading and keeps your patients and co-workers safe!”



Slide 20: Disinfectants that Kill SARS-CoV-2



Facilitator Notes

- Share links in chat to EPA resources regarding disinfectants that kill SARS-CoV-2.
 - ▶ **List N – Infographic: Which disinfectants kill COVID-19?:** https://www.epa.gov/sites/production/files/2020-12/documents/list_n_how-to_infographic_final_0.pdf
 - ▶ **List N Tool: COVID-19 Disinfectants:** <https://cfpub.epa.gov/giwiz/disinfectants/index.cfm>
 - ▶ **About List N: Disinfectants for Coronavirus (COVID-19):** <https://www.epa.gov/coronavirus/about-list-n-disinfectants-coronavirus-covid-19-0>
 - ▶ **Selected EPA-Registered Disinfectants:** <https://www.epa.gov/pesticide-registration/selected-epa-registered-disinfectants>
- These links also appear on the “Resources” slide.



Sample Script

“The EPA has many resources about disinfectants for use in healthcare and lists of disinfectants that are effective against different germs, including SARS-CoV-2, which is the virus that causes COVID-19. The list for SARS-CoV-2 is called ‘List N.’ We’ll put the links in the chat, and they’re also included on the ‘Resources’ slide for your reference later.”

7. Reflection and Wrap-Up



10 minutes



Slide 21: Reflection: What Did You Learn Today?



Facilitator Notes

- Invite participants to share what they learned during the session.
- Encourage participants to describe actions that they can take to use what they have learned. They may come off mute and speak, or type in the chat, or both.
 - ▶ As appropriate, make connections between participants' responses and the material from the session, particularly "why" cleaning and disinfection are so important in healthcare.
- Invite additional, remaining questions.
- If the answers are information that is already included in this session, please respond.
- If the questions address content that is not covered in this session, please do not attempt to answer. Instead, take note of the questions and consult with CDC resources to follow up with answers after the session.



Sample Script

"Let's use our last few minutes together to reflect on what we've covered today and think about how we can learn more and put what we've learned into practice."

"I'd love to hear from you about what you learned today. **Would anyone like to share?**"

(Acknowledge and address responses.)

"As we just heard, you've learned a lot today. I'd like you to identify one thing you'll need to do, or continue to do, in your daily work to help keep the healthcare environment clean and stop germs from spreading."

(Acknowledge and address responses.)

"Thank you for sharing! **Does anyone have any questions still remaining?**"

(Address questions as appropriate.)

“Thank you for sharing those questions. Project Firstline is actively collecting your questions to help inform more training resources as they’re developed. I’ve written them down, and I will get back to you with responses.”



Slide 22: Key Takeaways



Facilitator Notes

- Review key takeaways.
- You may choose to revisit discussion points or questions that arose during the session.



Sample Script

“I hope this training gave you some good information about cleaning and disinfection and why it’s so important to do them correctly in healthcare. I’ve captured some key takeaways here, which you can review at your leisure after the session today.”



Slide 23: Resources and Future Training Sessions



Facilitator Notes

- Share additional resources from Project Firstline and CDC.
- If this session is part of a series, you may choose to describe the themes of upcoming sessions.



Sample Script

“That’s great, thank you. We covered a lot today, and there is still more to learn. You can keep exploring these topics on your own using the resources on this slide. You can also follow us on social media.”

(If this session is part of a series) “Next time, we will cover [insert next training topic].”



Slide 24: Feedback Form



Facilitator Notes

Explain how to access the feedback form.



Sample Script

“And, finally, please let us know how you enjoyed today’s session by completing the following feedback form. Thanks again for joining us today.”

After the Session



Send list of participant questions compiled during this session to ProjectFirstline@cdc.gov.



20-Minute Session Plan

1. Session Start



Slide 1: Opening Slide

Participants log in and get settled.

2. Agenda and Learning Objectives



2 minutes



Slide 2: Agenda



Facilitator Notes

- Welcome the group and add a greeting to the chat box.
- If this session is part of an ongoing series, you may choose to say “welcome back,” “thank you for joining us again,” etc.
- Announce housekeeping notes, either orally or via chat.
 - ▶ If needed, additional notes specific to the platform you’re using (e.g., how to “raise your hand,” how to post questions)
- Provide an overview of the agenda.



Sample Script

“Welcome to Project Firstline. Thank you for joining us! Before we begin, a few housekeeping notes. We’ll meet today for 20 minutes. Please keep your videos on, to the extent possible, and keep your microphone muted when you are not contributing to the discussion. It’s great to see you all here today!

“Today we’ll focus on another essential part of infection control: cleaning and disinfection. **What are they? What is the difference between them? And why do they matter?**”



Slide 3: Learning Objectives



Facilitator Notes

Provide an overview of the session's learning objectives.



Sample Script

"Here is what we expect to learn today. By the end of today's training, you will be able to describe the difference between cleaning and disinfection and discuss why it is important to follow the label instructions on a disinfectant product."



Slide 4: Poll



Facilitator Notes

- Use the poll feature for your platform to ask participants about the definitions of cleaning and disinfection.
 - ▶ **Cleaning is killing germs. Disinfecting is removing dirt and some germs.**
 - ▶ **Disinfecting is a type of cleaning (cleaning with chemicals).**
 - ▶ **Cleaning is a type of disinfecting (disinfecting with soap or detergent).**
 - ▶ **Disinfecting is killing germs. Cleaning is removing dirt and some germs.**
- If the platform you are using does not have a poll feature, you may choose to ask participants to enter their responses in the chat.



Sample Script

"**We clean and we disinfect a lot in healthcare, but what's the difference?** Let's do a quick poll. Pick the sentence that best describes cleaning and disinfection."

(Pause for participants to respond to poll options, and then display poll results.)

"Great! Thanks for doing that. The correct answer is that cleaning removes dust, dirt, and grime, including organic material like blood, and some germs. Disinfection kills germs. We're going to learn more about cleaning and disinfection today and why they're so important in healthcare."

3. Video and Discussion



7 minutes (video: 3:49)



Slide 5: Cleaning and Disinfection: What's the Difference?



Facilitator Notes

- Help participants think about moments in their daily work when they might clean or disinfect surfaces or objects.
- Encourage participants to make note of their thoughts.



Sample Script

"Let's get started.

"As we watch this episode of *Inside Infection Control* with the CDC's Dr. Abby Carlson, start thinking about your workday. In your participant booklet, jot down instances when it may be important to clean, or disinfect, or both.

"Now let's watch the video to make sure everyone is on the same page."



Slide 6: Video: Cleaning? Disinfection? What is the Difference?



Facilitator Notes

- Access the video here:
CDC Website: <https://www.cdc.gov/infectioncontrol/projectfirstline/videos/Ep16-CLEANING-LoRes.mp4>
- OR
Project Firstline YouTube Playlist: <https://www.youtube.com/watch?v=dluRI9OpjnY>





Slide 7: Definitions



Facilitator Notes

- Either allow time for participants to read the definitions themselves or read them aloud.



Sample Script

“As you heard from Dr. Carlson, cleaning *removes* visible dirt, dust, spills, smears, and grime, including organic material like blood, as well as some germs, from surfaces. It’s important to clean before disinfecting because dirt and grime can make disinfectants not work as well. And we need disinfectants to work to *kill* germs on surfaces or objects.

“Did you already know the difference between cleaning and disinfection? Or is there anything about these definitions that was new to you?”

(Acknowledge responses.)



Slide 8: Questions and Clarifications?



Facilitator Notes

- Briefly open the floor for final thoughts and any questions or areas of confusion.
- If the questions address content that is not covered in this session, please do not attempt to answer. Instead, take note of the questions and consult with CDC resources to follow up with answers after the session.



Sample Script

“Great job! Before we move on, I just want to open it up in case you have questions or things that you’d like to clarify.”

4. Discussion: Why Cleaning and Disinfection Matter in Healthcare



3 minutes



Slide 9: Why Cleaning and Disinfection Matter



Facilitator Notes

- The bullet points on the following slides summarize content from Episode 20 of *Inside Infection Control: Why Do Cleaning and Disinfection Matter in Healthcare?* bit.ly/WhyCleanAndDis. For time reasons, the video is not shown during the 20-minute sessions.
- If time allows, feel free to show the video or to share it as an extension activity.



Sample Script

“We’ve talked about the ways that cleaning and disinfection are part of our daily work life and how they work. Remember, cleaning is an important step because, if we try to disinfect something that isn’t clean, the disinfectant might not work. And we need disinfectants to kill germs. Now let’s take a few minutes to talk about why this is so important in healthcare.”



Slide 10: Patients May Have Weakened Immune Systems



Facilitator Notes

- This slide has animations for the second column. When you advance to the slide, only the first column will appear.
- After you introduce the concept, ask participants to share, either orally or in the chat, answers to the question, “**Why?**”
- After they provide responses, use the animation to reveal the answers.
- You may wish to refer to the [Content Outline for Episode 20](#) for additional discussion points.



Sample Script

“Cleaning and disinfection are critical in healthcare for many reasons. **It’s common sense that we don’t want a dirty environment for our patients – but why is that? Does anyone have any thoughts?”**

(Pause for responses, then advance to reveal second column.)

“Yes! One reason is because, in healthcare, we have patients who are ill and may not be able to fight off infections as well as someone who is healthy. Germs are more likely to cause problems in these patients because their immune defenses might not be as strong as someone who’s healthy.

“It’s possible to see how some patients might be at risk of infection, such as if they have burns or wounds, or if they’re having a procedure when germs could get into their bodies, such as getting an IV or a catheter. But many patients’ risks for infection can’t be seen, like when a patient’s immune system is weak because of the medication in their cancer treatment.”



Slide 11: The Healthcare Environment Should Be Kept Clean



Facilitator Notes

- This slide has animations for the second column. When you advance to the slide, only the first column will appear.
- After you introduce the concept, ask participants to share, either by coming off mute or via chat, answers to the question, **“Why?”**
- After they provide responses, use the animation to reveal the answers.
- You may wish to refer to the [Content Outline for Episode 20](#) for additional discussion points.



Sample Script

“It’s important to keep the healthcare environment clean to stop germs from spreading. **What are some places that you can think of that need to be cleaned and disinfected often?”**

(Pause for responses, then advance to reveal second column.)

“There are a lot in healthcare! Think about patient rooms. When a patient leaves a room or is discharged, before a new patient goes into that room, it should be cleaned and disinfected to make sure germs don’t spread.

“**What about high-touch surfaces?** We also clean and disinfect things that get touched a lot, such as bed rails, keyboards, and light switches. These ‘high-touch surfaces’ need that frequent cleaning and disinfection.

“**What else?** It’s also important to clean and disinfect things in healthcare that aren’t touched or shared as often but tend to be dirty and have a lot of germs on them, like toilet seats.”

5. Discussion: Contact Time and Disinfection



5 minutes



Slide 12: What is Contact Time?



Facilitator Notes

- The bullet points on the following slides summarize content from Episode 22 of *Inside Infection Control: Why Does Contact Time Matter for Disinfection?* bit.ly/WhyContactTime. You may wish to refer to the [Content Outline for Episode 22](#) for additional discussion points
- If time allows, feel free to show the video or to share it as an extension activity.



Sample Script

“Now we’re going to take a closer look at an important part of disinfection: contact time.”



Slide 13: Definition



Facilitator Notes

- Make sure participants are aware of what contact time is and the other terms that might be used (dwell time, wet time).
- Link the concept of contact time to the reality of cleaning and disinfection at work in healthcare.
- You may wish to tailor this content to your audience, as not all healthcare workers are involved in this work in the same way.
- **EPA List N: Disinfectants for Coronavirus (COVID-19):** <https://www.epa.gov/pesticide-registration/list-n-disinfectants-coronavirus-covid-19>



Sample Script

“First, let’s talk about what contact time is. **Does anyone have any thoughts on how to define it?**”

(Pause for responses.)

“Contact time – also called ‘dwell time’ or ‘wet time’ – is the amount of time a disinfectant needs to sit on a surface, without being wiped away or disturbed, to do its job of killing germs.

“Contact time is important because the product you’re using might not kill germs right away. It takes time before all the germs are killed and something is truly ‘disinfected.’

“This time can vary depending on the product. But it is always specific, and it should be on the label. Even if you’re using a product that both cleans and disinfects, all in one, it will still have a contact time that you need to use for it to work correctly.

“Now that we know what it is, what does it mean for our daily work?”



Slide 14: The Disinfectant Label



Facilitator Notes

- This slide has animations. After participants provide responses, trigger the animation as you go through the script.
- Invite participants to suggest the information on the label of a disinfecting product that’s important to know in order to use it correctly.
 - ▶ As participants respond, either by going off mute or in the chat, guide them through the information found on the product label.
- Remind participants why following label instructions on disinfecting products is important.



Sample Script

“While you can usually judge if something is clean or not just by looking at it, this doesn’t work with disinfection. Because germs are too small for us to see, we can’t judge how well something has been disinfected just by looking at it. That’s why following the instructions when you use disinfecting products is so important.
What information do you need from the label to make sure you’re using it correctly?”

(Pause for responses. Prompt first animation.)

“First of all, in healthcare in the United States, you’ll use disinfectants that are registered with the Environmental Protection Agency, the EPA. The EPA is charged with reviewing chemicals used for disinfection to make sure that they’re safe and effective. Disinfectants used in healthcare facilities will usually have ‘hospital-grade,’ or something similar, on the label.”

(Prompt second, third, and fourth animation.)

“Other things you need to know are which surfaces the chemical can be used on, which germs the chemical has been proven to kill, and whether the product should be diluted. That means if it needs to have water or another substance added to it to bring the concentration down so it’s safe for use. If so, the label should also tell you how to do that and what to use.”

(Prompt fifth and final animation.)

“And, of course, the label will tell you the contact time – or dwell time or wet time.”



Slide 15: Dos and Don'ts for Disinfection



Facilitator Notes

- Because there is often pressure to move fast in healthcare, this slide is an opportunity to discuss why it is important not to rush the disinfection process.
- Time permitting and if applicable, you may wish to open the floor to invite participants to share instances in their experience in which they have felt hurried.



Sample Script

“We know that we want to use disinfecting products at the right times and correctly. **But what do we not want to do?**”

“One of the biggest ‘don’ts’ is don’t rush the process. The entire contact time has to finish before something that’s been disinfected can be used again, like shared equipment, or before a new patient comes into a room after the last patient has been discharged. That’s how we can be sure the disinfectant has had time to do its job and kill the germs.

“Don’t try to dry a surface that’s been disinfected more quickly by wiping with another cloth, or by blowing on it with your breath. Also, don’t blow air on the surface another way, like with a fan, unless the manufacturer of the product you’re using says it’s okay to.

“Be patient. We know this can be tough. Patients may be waiting for rooms and equipment, and there may be pressure to move fast. But the risk of spreading germs is too great to rush the process. Following the instructions keeps germs from spreading and keeps your patients and co-workers safe!”



Slide 16: Disinfectants that Kill SARS-CoV-2



Facilitator Notes

- Share links in chat to EPA resources regarding disinfectants that kill SARS-CoV-2
 - ▶ **List N – Infographic: Which disinfectants kill COVID-19?:** https://www.epa.gov/sites/production/files/2020-12/documents/list_n_how-to_infographic_final_0.pdf
 - ▶ **List N Tool: COVID-19 Disinfectants:** <https://cfpub.epa.gov/giwiz/disinfectants/index.cfm>
 - ▶ **About List N: Disinfectants for Coronavirus (COVID-19):** <https://www.epa.gov/coronavirus/about-list-n-disinfectants-coronavirus-covid-19-0>
 - ▶ **Selected EPA-Registered Disinfectants:** <https://www.epa.gov/pesticide-registration/selected-epa-registered-disinfectants>
- These links also appear on the “Resources” slide.



Sample Script

“The EPA has many resources about disinfectants for use in healthcare and lists of disinfectants that are effective against different germs, including SARS-CoV-2, which is the virus that causes COVID-19. The list for SARS-CoV-2 is called ‘List N.’ We’ll put the links in the chat, and they’re also included on the ‘Resources’ slide for your reference later.”

6. Reflection and Wrap-Up



3 minutes



Slide 17: Reflection: What Did You Learn Today?



Facilitator Notes

- Invite participants to share what they learned during the session.
- Encourage participants to describe actions that they can take to use what they have learned. They may come off mute and speak, or type in the chat, or both.
 - ▶ As appropriate, make connections between participants' responses and the material from the session, particularly "why" cleaning and disinfection are so important in healthcare.
- Invite additional, remaining questions.
- If the answers are information that is already included in this session, please respond.
- If the questions address content that is not covered in this session, please do not attempt to answer. Instead, take note of the questions and consult with CDC resources to follow up with answers after the session.



Sample Script

"Let's use our last few minutes together to reflect on what we've covered today and think about how we can learn more and put what we've learned into practice.

"I'd love to hear from you about what you learned today. **Would anyone like to share?"**

(Acknowledge and address responses.)

"As we just heard, you've learned a lot today. I'd like you to identify one thing you'll need to do, or continue to do, in your daily work to help keep the healthcare environment clean and stop germs from spreading."

(Acknowledge and address responses.)

"Thank you for sharing! **Does anyone have any questions still remaining?"**

(Address questions as appropriate.)

"Thank you for sharing those questions. Project Firstline is actively collecting your questions to help inform more training resources as they're developed. I've written them down, and I will get back to you with responses."



Slide 18: Key Takeaways



Facilitator Notes

- Review key takeaways.
- You may choose to revisit discussion points or questions that arose during the session.



Sample Script

"I hope this training gave you some good information about cleaning and disinfection and why it's so important to do them correctly in healthcare. I've captured some key takeaways here, which you can review at your leisure after the session today."



Slide 19: Resources and Future Training Sessions



Facilitator Notes

- Share additional resources from Project Firstline and CDC.
- If this session is part of a series, you may choose to describe the themes of upcoming sessions.



Sample Script

"That's great, thank you. We covered a lot today, and there is still more to learn. You can keep exploring these topics on your own using the resources on this slide. You can also follow us on social media."

(If this session is part of a series) "Next time, we will cover [insert next training topic]."



Slide 20: Feedback Form



Facilitator Notes

Explain how to access the feedback form.



Sample Script

“And, finally, please let us know how you enjoyed today’s session by completing the following feedback form. Thanks again for joining us today.”

After the Session



Send list of participant questions compiled during this session to ProjectFirstline@cdc.gov.



10-Minute Session Plan

Why Do Cleaning and Disinfection Matter?

1. Session Start



Slide 1: Opening Slide

Participants log in and get settled.

2. Agenda and Learning Objectives



Slide 2: Agenda



Facilitator Notes

- Welcome the group and add a greeting to the chat box.
- You may adapt the introduction time as needed: spend time on introductions if there are new faces or if group members still do not know each other.
- If this session is part of an ongoing series, you may choose to say “welcome back,” “thank you for joining us again,” etc.
- Announce housekeeping notes, either orally or via chat.
 - ▶ If needed, include additional notes specific to the platform you’re using (e.g., how to “raise your hand,” how to post questions)
- Provide an overview of the agenda.



Sample Script

“Welcome to Project Firstline. Thank you for joining us! Before we begin, a few housekeeping notes. We’ll meet today for 10 minutes. Please keep your videos on, to the extent possible, and keep your microphone muted when you are not contributing to the discussion. It’s great to see you all here today!

“Today we’ll focus on another essential part of infection control: cleaning and disinfection. **What are they? What is the difference between them? And why do they matter?**”



Slide 3: Learning Objectives



Sample Script

“By the end of today’s training, you will be able to describe the difference between cleaning and disinfection, and why they matter in healthcare.”



Slide 4: Cleaning and Disinfection: What is the Difference?



Facilitator Notes

- Help participants think about moments in their daily work when they might clean or disinfect surfaces or objects.
- Encourage participants to make note of their thoughts.



Sample Script

“Let’s get started.

“As we watch this episode of *Inside Infection Control* with the CDC’s Dr. Abby Carlson, start thinking about your workday. In your participant booklet, jot down instances when it may be important to clean, or disinfect, or both.

“Now let’s watch the video to make sure everyone is on the same page.”



Slide 5: Video: Cleaning? Disinfection? What is the Difference?



Facilitator Notes

- Access the video here:
CDC Website: <https://www.cdc.gov/infectioncontrol/projectfirstline/videos/Ep16-CLEANING-LoRes.mp4>



- OR
Project Firstline YouTube Playlist: <https://www.youtube.com/watch?v=dluRI9OpjnY>



Slide 6: Definitions



Facilitator Notes

Either allow time for participants to read the definitions themselves or read them aloud.



Sample Script

“As you heard from Dr. Carlson, cleaning removes visible dirt, dust, spills, smears, and grime, including organic material like blood, as well as some germs, from surfaces. It’s important to clean before disinfecting because dirt and grime can make disinfectants not work as well. And we need disinfectants to work to kill germs on surfaces or objects.

“**Did you already know the difference between cleaning and disinfection? Or is there anything about these definitions that was new to you?**”

(Acknowledge responses.)



Slide 7: Why Cleaning and Disinfection Matter



Facilitator Notes

- The bullet points on the following slides summarize content from Episode 20 of *Inside Infection Control: Why Do Cleaning and Disinfection Matter in Healthcare?* bit.ly/WhyCleanAndDis. For time reasons, the video is not shown during the 10-minute sessions.
- If time allows, feel free to show the video or to share it as an extension activity.



Sample Script

“We’ve talked about the ways that cleaning and disinfection are part of our daily work life and how they work. Remember, cleaning is an important step because, if we try to disinfect something that isn’t clean, the disinfectant might not work. And we need disinfectants to kill germs. Now let’s take a few minutes to talk about why this is so important in healthcare.”



Slide 8: Patients May Have Weakened Immune Systems



Facilitator Notes

- This slide has animations for the second column. When you advance to the slide, only the first column will appear.
- After you introduce the concept, ask participants to share, either orally or in the chat, answers to the question, **“Why?”**
- After they provide responses, use the animation to reveal the answers.
- You may wish to refer to the [Content Outline for Episode 20](#) for additional discussion points.



Sample Script

“Cleaning and disinfection are critical in healthcare for many reasons. **It’s common sense that we don’t want a dirty environment for our patients – but why is that? Does anyone have any thoughts?”**

(Pause for responses, then advance to reveal second column.)

“Yes! One reason is because, in healthcare, we have patients who are ill and may not be able to fight off infections as well as someone who is healthy. Germs are more likely to cause problems in these patients because their immune defenses might not be as strong as someone who’s healthy.

“It’s possible to see how some patients might be at risk of infection, such as if they have burns or wounds, or if they’re having a procedure when germs could get into their bodies, such as getting an IV or a catheter. But many patients’ risks for infection can’t be seen, like when a patient’s immune system is weak because of the medication in their cancer treatment.”



Slide 9: The Healthcare Environment Should Be Kept Clean



Facilitator Notes

- This slide has animations for the second column. When you advance to the slide, only the first column will appear.
- After you introduce the concept, ask participants to share, either by coming off mute or via chat, answers to the question, **“Why?”**

- After they provide responses, use the animation to reveal the answers.
- You may wish to refer to the [Content Outline for Episode 20](#) for additional discussion points.



Sample Script

“It’s important to keep the healthcare environment clean to stop germs from spreading. **What are some places that you can think of that need to be cleaned and disinfected often?**”

(Pause for responses, then advance to reveal second column.)

“There are a lot in healthcare! Think about patient rooms. When a patient leaves a room or is discharged, before a new patient goes into that room, it should be cleaned and disinfected to make sure germs don’t spread.

“**What about high-touch surfaces?** We also clean and disinfect things that get touched a lot, such as bed rails, keyboards, and light switches. These ‘high-touch surfaces’ need that frequent cleaning and disinfection.

“**What else?** It’s also important to clean and disinfect things in healthcare that aren’t touched or shared as often but tend to be dirty and have a lot of germs on them, like toilet seats.”



Slide 10: Reflection: What Did You Learn Today?



Facilitator Notes

- Invite participants to share what they learned during the session.
- Encourage participants to describe actions that they can take to use what they have learned. They may come off mute and speak, or type in the chat, or both.
 - ▶ As appropriate, make connections between participants’ responses and the material from the session, particularly “why” cleaning and disinfection are so important in healthcare.
- Invite additional, remaining questions.
- If the answers are information that is already included in this session, please respond.
- If the questions address content that is not covered in this session, please do not attempt to answer. Instead, take note of the questions and consult with CDC resources to follow up with answers after the session.



Sample Script

"Let's use our last few minutes together to reflect on what we've covered today and think about how we can learn more and put what we've learned into practice.

"I'd love to hear from you about what you learned today. **Would anyone like to share?"**

(Acknowledge and address responses.)

"As we just heard, you've learned a lot today. I'd like you to identify one thing you'll need to do, or continue to do, in your daily work to help keep the healthcare environment clean and stop germs from spreading."

(Acknowledge and address responses.)

"Thank you for sharing! **Does anyone have any questions still remaining?"**

(Address questions as appropriate.)

"Thank you for sharing those questions. Project Firstline is actively collecting your questions to help inform more training resources as they're developed. I've written them down, and I will get back to you with responses."



Slide 11: Key Takeaways



Facilitator Notes

- Review key takeaways.
- You may choose to revisit discussion points or questions that arose during the session.



Sample Script

"I hope this training gave you some good information about cleaning and disinfection and why it's so important to do them correctly in healthcare. I've captured some key takeaways here, which you can review at your leisure after the session today."



Slide 12: Resources and Future Training Sessions



Facilitator Notes

- Share additional resources from Project Firstline and CDC.
- If this session is part of a series, you may choose to describe the themes of upcoming sessions.



Sample Script

"That's great, thank you. We covered a lot today, and there is still more to learn. You can keep exploring these topics on your own using the resources on this slide. You can also follow us on social media."

(If this session is part of a series) "Next time, we will cover [insert next training topic]."



Slide 13: Feedback Form



Facilitator Notes

Explain how to access the feedback form.



Sample Script

"And, finally, please let us know how you enjoyed today's session by completing the following feedback form. Thanks again for joining us today."

After the Session



Send list of participant questions compiled during this session to ProjectFirstline@cdc.gov.



10-Minute Session Plan

What is Contact Time?

1. Session Start



Slide 1: Opening Slide

Participants log in and get settled.

2. Agenda and Learning Objectives



Slide 2: Agenda



Facilitator Notes

- Welcome the group and add a greeting to the chat box.
- You may adapt the introduction time as needed: spend time on introductions if there are new faces or if group members still do not know each other.
- If this session is part of an ongoing series, you may choose to say “welcome back,” “thank you for joining us again,” etc.
- Announce housekeeping notes, either orally or via chat.
 - ▶ If needed, additional notes specific to the platform you’re using (e.g., how to “raise your hand,” how to post questions)
- Provide an overview of the agenda.



Sample Script

“Welcome to Project Firstline. Thank you for joining us! Before we begin, a few housekeeping notes. We’ll meet today for 10 minutes. Please keep your videos on, to the extent possible, and keep your microphone muted when you are not contributing to the discussion. It’s great to see you all here today!

“Today we’ll focus on another essential part of infection control: disinfectants and contact time. **What is contact time? And why is it important?**”



Slide 3: Learning Objectives



Sample Script

“By the end of today’s training, you will be able to discuss why it is important to follow the label instructions on a disinfectant product.”



Slide 4: What is Contact Time?



Facilitator Notes

Transition to video episode of *Inside Infection Control*.



Sample Script

“Now we’re going to take a closer look at an important part of disinfection: contact time.”



Slide 5: Video: Why Does Contact Time Matter for Disinfection?



Facilitator Notes

- Access the video here:

CDC Website: <https://www.cdc.gov/infectioncontrol/projectfirstline/videos/Ep22-Contact-LowResolution-New.mp4>

- OR

Project Firstline YouTube Playlist: <https://www.youtube.com/watch?v=TCa7Gg1NUD4>



Sample Script

“Let’s hear more about contact time from the CDC’s Dr. Abby Carlson.”



Slide 6: Definition



Facilitator Notes

- Make sure participants are aware of what contact time is and the other terms that might be used (dwell time, wet time).
- Link the concept of contact time to the reality of cleaning and disinfection at work in healthcare.
- You may wish to tailor this content to your audience, as not all healthcare workers are involved in this work in the same way.
- **EPA List N: Disinfectants for Coronavirus (COVID-19):** <https://www.epa.gov/pesticide-registration/list-n-disinfectants-coronavirus-covid-19>



Sample Script

“Now that you’ve heard from CDC’s Dr. Abby Carlson, let’s talk about what contact time is. **Does anyone have any thoughts on how to define it?**”

(Pause for responses.)

“Contact time – also called ‘dwell time’ or ‘wet time’ – is the amount of time a disinfectant needs to sit on a surface, without being wiped away or disturbed, to do its job of killing germs.

“Contact time is important because the product you’re using might not kill germs right away. It takes time before all the germs are killed and something is truly ‘disinfected.’

“This time can vary depending on the product. But it is always specific, and it should be on the label. Even if you’re using a product that both cleans and disinfects, all in one, it will still have a contact time that you need to use for it to work correctly.

“Now that we know what it is, what does it mean for our daily work?”



Slide 7: The Disinfectant Label



Facilitator Notes

- This slide has animations. After participants provide responses, trigger the animation as you go through the script.
- Invite participants to suggest the information on the label of a disinfecting product that's important to know in order to use it correctly.
- As participants respond, either by going off mute or in the chat, guide them through the information found on the product label.
- Remind participants why following label instructions on disinfecting products is important.



Sample Script

"While you can usually judge if something is clean or not just by looking at it, this doesn't work with disinfection. Because germs are too small for us to see, we can't judge how well something has been disinfected just by looking at it. That's why following the instructions when you use disinfecting products is so important. **What information do you need from the label to make sure you're using it correctly?"**

(Pause for responses. Prompt first animation.)

"First of all, in healthcare in the United States, you'll use disinfectants that are registered with the Environmental Protection Agency, the EPA. The EPA is charged with reviewing chemicals used for disinfection to make sure that they're safe and effective. Disinfectants used in healthcare facilities will usually have 'hospital-grade,' or something similar, on the label."

(Prompt second, third, and fourth animation.)

"Other things you need to know are which surfaces the chemical can be used on, which germs the chemical has been proven to kill, and whether the product should be diluted. That means if it needs to have water or another substance added to it to bring the concentration down so it's safe for use. If so, the label should also tell you how to do that, and what to use."

(Prompt fifth and final animation.)

"And, of course, the label will tell you the contact time – or dwell time or wet time."



Slide 8: Dos and Don'ts for Disinfection



Facilitator Notes

- Because there is often pressure to move fast in healthcare, this slide is an opportunity to discuss why it is important not to rush the disinfection process.
- Time permitting and if applicable, you may wish to open the floor to invite participants to share instances in their experience in which they have felt hurried.



Sample Script

"We know that we want to use disinfecting products at the right times and correctly. **But what do we not want to do?**

"One of the biggest 'don'ts' is don't rush the process. The entire contact time has to finish before something that's been disinfected can be used again, like shared equipment, or before a new patient comes into a room after the last patient has been discharged. That's how we can be sure the disinfectant has had time to do its job and kill the germs.

"Don't try to dry a surface that's been disinfected more quickly by wiping with another cloth, or by blowing on it with your breath. Also, don't blow air on the surface another way, like with a fan, unless the manufacturer of the product you're using says it's okay to.

"Be patient. We know this can be tough. Patients may be waiting for rooms and equipment, and there may be pressure to move fast. But the risk of spreading germs is too great to rush the process. Following the instructions keeps germs from spreading and keeps your patients and co-workers safe!"



Slide 9: Disinfectants that Kill SARS-CoV-2



Facilitator Notes

- Share links in chat to EPA resources regarding disinfectants that kill SARS-CoV-2
 - ▶ **List N – Infographic: Which disinfectants kill COVID-19?** https://www.epa.gov/sites/production/files/2020-12/documents/list_n_how-to_infographic_final_0.pdf
 - ▶ **List N Tool: COVID-19 Disinfectants:** <https://cfpub.epa.gov/giwiz/disinfectants/index.cfm>

- ▶ **About List N: Disinfectants for Coronavirus (COVID-19):** <https://www.epa.gov/coronavirus/about-list-n-disinfectants-coronavirus-covid-19-0>
 - ▶ **Selected EPA-Registered Disinfectants:** <https://www.epa.gov/pesticide-registration/selected-epa-registered-disinfectants>
- These links also appear on the “Resources” slide.



Sample Script

“The EPA has many resources about disinfectants for use in healthcare and lists of disinfectants that are effective against different germs, including SARS-CoV-2, which is the virus that causes COVID-19. The list for SARS-CoV-2 is called ‘List N.’ We’ll put the links in the chat, and they’re also included on the ‘Resources’ slide for your reference later.”



Slide 10: Reflection: What Did You Learn Today?



Facilitator Notes

- Invite participants to share what they learned during the session.
- Encourage participants to describe actions that they can take to use what they have learned. They may come off mute and speak, or type in the chat, or both.
 - ▶ As appropriate, make connections between participants’ responses and the material from the session, particularly “why” cleaning and disinfection are so important in healthcare.
- Invite additional, remaining questions.
- If the answers are information that is already included in this session, please respond.
- If the questions address content that is not covered in this session, please do not attempt to answer. Instead, take note of the questions and consult with CDC resources to follow up with answers after the session.



Sample Script

“Let’s use our last few minutes together to reflect on what we’ve covered today and think about how we can learn more and put what we’ve learned into practice.

“I’d love to hear from you about what you learned today. **Would anyone like to share?**”

(Acknowledge and address responses.)

“As we just heard, you’ve learned a lot today. I’d like you to identify one thing you’ll need to do, or continue to do, in your daily work to help keep the healthcare environment clean and stop germs from spreading.”

(Acknowledge and address responses.)

“Thank you for sharing! **Does anyone have any questions still remaining?**”

(Address questions as appropriate.)

“Thank you for sharing those questions. Project Firstline is actively collecting your questions to help inform more training resources as they’re developed. I’ve written them down, and I will get back to you with responses.”



Slide 11: Key Takeaways



Facilitator Notes

- Review key takeaways.
- You may choose to revisit discussion points or questions that arose during the session.



Sample Script

“I hope this training gave you some good information about contact time and why it’s so important for disinfection in healthcare. I’ve captured some key takeaways here, which you can review at your leisure after the session today.”



Slide 12: Resources and Future Training Sessions



Facilitator Notes

- Share additional resources from Project Firstline and CDC.
- If this session is part of a series, you may choose to describe the themes of upcoming sessions.



Sample Script

“We covered a lot today, and there is still more to learn. You can keep exploring these topics on your own using the resources on this slide. You can also follow us on social media.”

(If this session is part of a series) “Next time, we will cover [insert next training topic].”



Slide 13: Feedback Form



Facilitator Notes

Explain how to access the feedback form.



Sample Script

“And, finally, please let us know how you enjoyed today’s session by completing the following feedback form. Thanks again for joining us today.”

After the Session



Send list of participant questions compiled during this session to ProjectFirstline@cdc.gov.

Appendix – Content Outlines

Episode 16 Title: *Cleaning? Disinfection? What's the Difference?*

Content Summary: Cleaning removes dirt and some germs from surfaces and objects. Disinfection kills germs on surfaces and objects.



Topic: Environmental Cleaning and Disinfection

Learning Objectives

After viewing this video, learners will be able to:

- Describe the difference between cleaning and disinfection.
 - ▶ Cleaning removes the visible dirt, dust, spills, smears, and grime, as well as some germs, from surfaces.
 - ▶ Disinfection kills germs on surfaces or objects.
- Discuss two (2) reasons why a surface that is not clean should not be disinfected.
 - ▶ If a surface is not clean before disinfection, the disinfection might not work: the product might not be able to reach the germs if the surface is dirty.
 - ▶ If there is a lot of dirt, spills, or smears, disinfectant won't necessarily pick them up, and disinfection could spread the dirt or spill around the surface rather than kill the germs.

Key Educational Takeaways

- Cleaning and disinfection are often talked about together, but they are two different and important actions that keep the healthcare environment clean and stop germs from spreading.
- Cleaning removes things like dirt, dust, grime, and other spills, smears, and everyday messes from surfaces, and it can also remove some things that we can't see, like some germs.
- In some cases cleaning is enough, but in healthcare, it is not. Disinfection is necessary because cleaning doesn't kill germs.
- Disinfection is a different step, usually separate but not always, that kills germs on surfaces or objects.
- When you disinfect, it's important that the surface is clean first, because if it isn't, the disinfection might not work.
 - ▶ Cleaning and disinfection either happen at the same time in a single product, or cleaning comes first in the two-step process of cleaning and disinfection.
- Killing germs is important in healthcare because many patients are ill and weak and may not be able to fight off infections as well as someone who is healthy.

Content Outline

- Cleaning and disinfection are two different and important actions that keep the healthcare environment clean and stop germs from spreading.
- Cleaning removes things like dirt, dust, grime, and other spills, smears, and everyday messes from surfaces.
 - ▶ Cleaning can also remove some things that we can't see, like some germs.
- It's common sense that cleaning is important in healthcare because it is important to keep dirt and grime from getting to patients.
- In some cases cleaning is enough, but often in healthcare, it is not. Disinfection is necessary because cleaning doesn't kill germs.
- Disinfection is a different step, usually separate but not always, that kills germs on surfaces or objects.
 - ▶ Disinfection should not happen before cleaning: they either happen at the same time in a single product, or cleaning comes first in the two-step process of cleaning and disinfection.
 - ▶ When you disinfect, it's important that the surface is clean first, because if it isn't, the disinfection might not work.
 - The product might not be able to get to the germs you want to kill, because they're covered in dirt or grime.
 - If there is a lot of dirt, spills, or smears, the disinfectant won't necessarily pick them up and clean, and it could spread the dirt or spill around the surface rather than kill the germs.
- Killing germs is important in healthcare because many patients are ill and weak and may not be able to fight off infections as well as someone who is healthy.



Episode 20 Title: *Why Do Cleaning and Disinfection Matter in Healthcare?*

Content Summary: Cleaning and disinfection are important in healthcare because they keep germs away from people and keep infections from spreading.

Topic: Environmental Cleaning and Disinfection

Learning Objectives

After viewing this video, learners will be able to:

- Describe two (2) types of surfaces in healthcare that are cleaned and disinfected frequently.
 - ▶ Things in healthcare that are touched often, called “high-touch surfaces,” such as door handles, keyboards, and light switches
 - ▶ Things in healthcare that may not get touched or shared as often, but that tend to be dirty and have a lot of germs on them, such as toilet seats or patients’ mattresses
- Explain why cleaning and disinfection in healthcare are different from cleaning and disinfection at home.
 - ▶ In healthcare, there are patients who are ill and more likely to have a severe infection. Sometimes it’s possible to see when a patient is especially at risk of infection, but many patients have things going on that increase their risk for infection that you can’t necessarily see.
 - ▶ When people are healthy, the body has built-in ways to protect from infections.

Key Educational Takeaways

- Cleaning and disinfection are important in healthcare because they keep germs away from people and keep infections from spreading.
- Cleaning and disinfection in healthcare are different from cleaning and disinfection at home.
 - ▶ In healthcare, there are patients who are ill and more likely to have a severe infection.
 - ▶ When people are healthy, the body has built-in ways to protect from infections.
 - ▶ Sometimes it’s possible to see when a patient is especially at risk of infection, but many patients have things going on that increase their risk for infection that you can’t necessarily see.
- It’s important for the healthcare environment to be clean, as well as free of germs, in places where germs pose risks to patients and healthcare workers.
 - ▶ When a patient leaves a room or is discharged, the room should be cleaned and disinfected to make sure that the next patient is protected from the previous patient’s germs.
 - ▶ “High-touch surfaces,” as well as things that tend to be dirty and have many germs on them, should be cleaned and disinfected frequently.

- You can usually tell if you've gotten rid of dirt and other messes during cleaning by looking, because the dirt is gone.
- However, you can't tell by looking whether disinfection has worked, because germs are too small to see.
 - ▶ That's why it's important to follow the instructions on the label of disinfecting products.

Content Outline

- Cleaning is important to keep infections from spreading in healthcare: getting rid of dust, dirt, and body fluids keeps germs away from people.
- Disinfection is important in healthcare because it kills germs and keeps them from making people sick.
- Cleaning and disinfection in healthcare are different from cleaning and disinfection at home.
 - ▶ When people are healthy, the body has built-in ways to protect from infections – including the immune system.
 - ▶ An example is the barrier provided by healthy skin, which is an important part of the immune system.
- In healthcare, there are patients who are ill and more likely to have a severe infection.
 - ▶ Germs are more likely to cause problems in these patients because their immune defenses might not be as strong as someone who's healthy.
 - ▶ It's possible to see how some patients might be especially at risk of infection, like if they have burns or wounds, or if they're having a procedure done, like a surgical incision or getting an IV or a catheter, where germs could get under their skin.
 - ▶ Many patients have things going on that you can't necessarily see, like if their immune system is weak because of medication in their cancer treatment.
- It's important for the healthcare environment to be clean, as well as free of germs, in places where germs pose risks to patients and healthcare workers.
 - ▶ When a patient leaves a room or is discharged, the room should be cleaned and disinfected to make sure that the next patient is protected from the previous patient's germs.
 - ▶ Things in healthcare that are touched often, called "high-touch surfaces," need to be cleaned and disinfected frequently.
 - Examples of high-touch surfaces are door handles, keyboards, and light switches.
 - ▶ Things in healthcare that may not get touched or shared as often, but that tend to be dirty and have a lot of germs on them, are also cleaned and disinfected frequently.
 - Examples of these surfaces are toilet seats and patients' mattresses.
- Killing germs is also important because many germs that spread in healthcare are becoming resistant to antibiotics.
 - ▶ If someone gets sick with those germs, the medicines used to treat them might be less likely to work.

- ▶ There have been outbreaks in healthcare when people have gotten sick from these germs, and these outbreaks have not only been in patients, but also in healthcare workers.
- You can usually tell if you've gotten rid of dirt and other messes during cleaning by looking, because the dirt is gone.
- However, you can't tell by looking whether disinfection has worked, because germs are too small to see.
- ▶ That's why it's important to follow the instructions on the label of disinfecting products, including their "contact times" or "dwell times," which is how long the chemical needs to sit on a surface and not be wiped away to do its job of killing germs.



Episode 22 Title: *Why Does Contact Time Matter for Disinfection?*

Content Summary: “Contact time” is the amount of time a disinfectant needs to sit on a surface, without being wiped away or disturbed, in order to do its job of killing germs. It can be challenging in a busy healthcare setting, but it is important to wait for the full contact time to finish to be sure the germs are killed.

Topic: Environmental Cleaning and Disinfection

Learning Objectives

After viewing this video, learners will be able to:

- Describe four (4) reasons why it is important to follow the label instructions on a disinfecting product.
 - ▶ To know the contact time
 - ▶ To know which surfaces the chemical can be used on
 - ▶ To know which germs the chemical has been proven to kill
 - ▶ To know whether the product should be diluted
- Discuss why the process of room turnover and equipment turnover should not be rushed.
 - ▶ Before a new patient can come into a room, and before shared equipment can be used again, you need to wait for the entire contact time to pass so that the disinfectant has enough time to do its job of killing germs.
 - ▶ Not waiting for the contact time to finish can cause germs to spread to other patients or staff.

Key Educational Takeaways

- Contact time – also called “dwell time” or “wet time” – is the amount of time a disinfectant needs to sit on a surface, without being wiped away or disturbed, in order to do its job of killing germs.
- It’s important to follow the instructions on the disinfectant product label to use it correctly, and one of the most important reasons to follow the label is to know the contact time.
- It’s important not to rush the disinfection contact time: before a new patient can come into a room, and before shared equipment can be used again, you need to wait for the entire contact time to pass so that the disinfectant has enough time to kill germs.
- The need to wait for the full contact time to finish can be challenging in a busy healthcare setting, but it is important to wait for the full contact time to finish to be sure the germs are killed and won’t spread to other patients and staff.

Content Outline

- Cleaning removes dirt and some germs that are on surfaces and objects, and disinfection kills germs on surfaces and objects.
- An important aspect of disinfection is “contact time” – also called “dwell time” or “wet time.”
- Contact time is the amount of time a disinfectant needs to sit on a surface, without being wiped away or disturbed, in order to do its job of killing germs.
- There are a lot of germs in healthcare, and we want to keep them from spreading to patients or others.
 - ▶ Correctly disinfecting surfaces, like bed rails and door handles, and equipment, like stethoscopes and other devices, is an important part of infection control to keep germs from spreading.
- In the United States, the Environmental Protection Agency (EPA) reviews chemicals used in the workplace to make sure that they’re safe and effective.
 - ▶ Disinfectants for use in healthcare are registered with the EPA.
 - ▶ Disinfectants used in healthcare will usually have “hospital-grade,” or something similar, on the label.
 - ▶ Disinfectants that are effective against SARS-CoV-2, the virus that causes COVID-19, can be found on EPA’s List N.
- When using a disinfectant, it’s important to follow the instructions on the label to use it correctly and to know:
 - ▶ Which surfaces the disinfectant can be used on: some disinfectants can only be used on certain surfaces.
 - ▶ What types of germs the disinfectant has been proven to kill.
 - ▶ Whether the product should be diluted:
 - Some disinfectants need to be mixed with water or another liquid before they can be safely used for healthcare. This process is called “dilution.”
 - If so, the label will also tell you how to dilute the product.
- One of the most important reasons to follow the disinfectant label instructions is to know the contact time.
 - ▶ For some products, it takes time for germs to react with the chemical in the product, and for the product to kill the germs, before the surface or device is fully “disinfected.”
 - ▶ Depending on the product and the germ that’s being targeted, this time can vary; however, the time is always specific, and it is indicated on the label.
 - ▶ Products that both clean and disinfect will still have a contact time that you need to use in order for them to work correctly.
- It’s important not to rush the disinfection contact time by trying to dry the surface or device more quickly.

- ▶ Do not wipe it with another cloth before it's dry.
- ▶ Do not blow on it with your breath to try to dry it off.
 - You have germs in your breath that will make it dirty again.
- ▶ Do not blow air on it another way, like with a fan, unless the maker of the product says it's okay to do that.
- ▶ If you are in a very dry environment, the product can dry too fast, before the contact time is up.
 - Follow the label instructions on what to do if that happens.
 - You may have to reapply the product to reach the full contact time and to kill all of the germs.
- Before a new patient can come into a room, and before shared equipment can be used again, you need to wait for the entire contact time to pass so that the disinfectant has enough time to kill germs.
- The need to wait for the full contact time to finish can be challenging when patients are waiting for rooms and equipment.
- Not waiting for the contact time to finish can cause germs to spread to other patients or staff.
- When supervisors or other leaders make plans for room or equipment turnover, those plans should include the time it takes for the disinfecting products you've selected for your facility to work correctly.
 - ▶ People should not be rushed to use products incorrectly just to meet a deadline or a timeline.
 - ▶ Set up the process to succeed and to allow staff the necessary time to use cleaning and disinfection products correctly.
 - ▶ If turnover time is a concern, rather than using a product incorrectly, choose a different product that works best for the timeline that is needed.
- **EPA List N:** [List N: Disinfectants for Coronavirus \(COVID-19\) | Pesticide Registration | US EPA](#)



For more information please contact

Centers for Disease Control and Prevention
1600 Clifton Road NE, Atlanta, GA 33029-4027
Telephone: 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348
E-mail: cdcinfo@cdc.gov
Web: www.cdc.gov/projectfirstline