

INTERVIEW GUIDE HCP SEPSIS INTERVIEWS

Consistent with the CDC-approved formative research plan (FRP), the Persuasive Health Message Framework (PHM) serves as the theoretical framework guiding formative research to generate an effective campaign to raise knowledge and awareness of sepsis. This interview guide has been developed to gather information to answer the overarching research questions *and* provide data for PHM constructs to create viable campaign messages for health care professional audiences

INTRODUCTION TO GROUP PROCESSES AND PROCEDURES (5 MINUTES)

Thank you for taking the time to join us for this *online interview*. My name is [INSERT NAME] and I work for ICF, a research and consulting firm in Atlanta, Georgia. First, I want to take a few minutes to tell you what to expect from our conversation. After that, you will introduce yourself and then we'll begin our discussion.

As you may recall from when you were recruited, we are conducting this study on behalf of the Centers for Disease Control and Prevention (CDC), to understand health care professionals (HCPs)¹ thoughts about infections, sepsis, diagnosis and response to messages for HCPs about sepsis. This information will help CDC develop a communication campaign to educate HCPs about diagnosing sepsis.

My role is to simply facilitate our discussion, make sure we stay on topic, and keep us within our [State Time Limit - 60 minutes for HCPs]. I am not here to push any particular agenda or point of view, but rather to hear your frank and honest opinions. There are no right or wrong answers, and nothing to be ashamed of. We all have our own likes and dislikes, our own thoughts and feelings.

I'm going to ask a series of questions, but mainly I want to hear from you today. As I mentioned, my role is just to guide the discussion. Sometimes we may really get going on one question, and I'll have to move you on to the next question so that we may cover everything. Please don't take it personally! We just need to hear from everyone about several topics.

Our discussion is private. We do not report your comments by name. I don't expect you to tell me anything that you would be uncomfortable sharing, but hope that you will be honest with your responses to the questions I ask.

¹ Note to moderator, HCP is throughout guide. State "healthcare professional", not "HCP".

Public reporting burden of this collection of information is estimated to average 60 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB Control Number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to CDC/ATSDR Reports Clearance Officer, 1600 Clifton Road NE, MS D-74, Atlanta, Georgia 30333; ATTN: PRA 0920-1154

Let's review the informed consent form. (Interviewer: Read the form)

Remember your participation is voluntary. That means you can stop us at any time and if you are uncomfortable with a question, or if you simply don't have a response, it is fine to pass. You will still be paid for your time even if you do not answer every question.

Please speak up *and* speak clearly. We are audiotaping the discussion so that we can have an accurate record of the discussion. Also we have observers from CDC and ICF on in our online room, and on the phone line listening and taking notes during our discussion today. We also have an ICF technology support person to assist with any with any technical needs during our discussion. All observers have signed a confidentiality form in which they agree to the following:

- Observe only and not to take part in the discussion process.
- Not discuss who participated in the discussion. Observers will not discuss what was said by individual participants with others who were not also observers.
- After the virtual discussion group has ended, observers should only have discussions about the session that are general in nature and not specific about any individual participant.

Do you have any questions before we get started?

INTERVIEW QUESTIONS (50 MINUTES)

SECTION 1. GENERAL ATTITUDES, AWARENESS, KNOWLEDGE (10 MINUTES) (RQ 1, 2)

Moderator: *Let's discuss your thoughts about sepsis in general, infections that lead to sepsis, sepsis diagnosis and treatment.*

1. What do you think of when you hear the term "sepsis"?
 - a. How can you decide if an infection is more likely to lead to sepsis?
 - b. How would you describe the signs of sepsis in patients?
 - c. Please explain your steps to diagnosing sepsis?
 - d. Please explain your approach to treatment of sepsis.
2. What messages or information do you think is important for you to know about infections and sepsis in general?
 - a. What is the important message to convey to HCPs about sepsis and infections that lead to sepsis?
3. How do you balance the treatment of sepsis with the antimicrobial stewardship initiatives in your clinical setting?
 - a. What is the important message to convey to HCPs about sepsis treatment while also taking into account treatment guideline of your clinical setting's antimicrobial stewardship initiatives?

[Moderator: When using "you", you may add "or state HCP category: Physician Assistant,

Nurse Practitioner, Emergency Department Triage Nurse, Primary Care Physician, General Medical Ward Staff, Nursing Home Staff, or Home Healthcare Provider)” **throughout discussion**].

4. What would you like to know about sepsis in general? (What messages and information?)
 - a. What would you like to know about preventing sepsis?
 - b. What would you like to know about diagnosing sepsis?
 - c. What would you like to know about treatment of sepsis?
 - d. What do you think (what message) is important for your patients to know about sepsis, in general? Please explain why.

[Moderator: Answers to question 3 may be the same as responses to question 2. Feel free to move on if this is redundant.]

SECTION 2. PERCEPTIONS OF RISK (10 MINUTES) (RQ 3)

Moderator: Now, I would like to know your thoughts about the threat of sepsis AND your perspectives on whether your patients are at risk for infection leading to sepsis.

5. Do you think there are challenges in recognition and diagnosis of sepsis? Why? Why not?
6. Do you think that your patients are at risk for infection leading to sepsis? Why? Why not?
 - a. Do you worry about infections that lead to sepsis among your patients? Why? Why not?
 - b. Are there specific infections that you worry more about than others? Why?
7. What factors put some patients at higher risk of infection leading to sepsis?
8. How do you think your patients may try to prevent infections that lead to sepsis?
 - a. What are the steps that you think your patients should take to prevent infections that lead to sepsis?

SECTION 3. SELF AND RESPONSE EFFICACY PERCEPTIONS (10 MINUTES) (RQ 4)

Moderator: Let's discuss your thoughts regarding your actions to (1) educate patients about infections and sepsis, and (2) rapidly recognize and diagnosis sepsis.

9. Should you discuss infections that lead to sepsis and sepsis with patients? Why? Why not?
10. What actions can you take to educate patients about:
 - a. Infections that are likely lead to sepsis?
 - b. Vaccinations to decrease infections that lead to sepsis?
 - c. Managing chronic conditions to reduce chances of infections that lead to sepsis?
 - d. Signs and symptoms of sepsis?
11. What actions can you take to rapidly recognize/diagnose sepsis in patients?

12. What actions can you take to prevent infections that lead to sepsis?

***[Moderator: Ask about “rapid recognition” and “diagnosis” separately if needed throughout].
Moderator: Now tell me about confidence in your ability to execute certain behaviors;
specifically to: (1) educate patients about infections that lead to sepsis and sepsis in general,
and to (2) diagnosis/identify sepsis.***

13. Are you confident in your ability to educate patients about:

- Infections that lead to sepsis?
- Vaccinations to decrease infections that lead to sepsis?
- Managing chronic conditions to reduce chances of infections that lead to sepsis?
- Identifying signs and symptoms of sepsis?

14. Can you successfully rapidly recognize/diagnose sepsis in patients with different risk factors or clinical characteristics? Why? Why not?

- What are barriers to diagnosing sepsis in patients with different risk factors or clinical characteristics? Why?
- What are facilitators to diagnosing sepsis in patients with different risk factors or clinical characteristics? Why?
- What could make it easier for you to diagnosis sepsis in patients with different risk factors or clinical characteristics? Why?

[Moderator: For ED triage nurses, General Medical Ward Staff/Nursing Home Staff/Home Healthcare Staff, please probe as follows]:

- Are you empowered to talk to your manager if you suspect sepsis in patients? Why?
- How do you tell your manager about a patient with suspected sepsis? (e.g. in-person)
- What do you say to your manager to tell them about a patient with suspected sepsis?

Moderator: Now let’s discuss if you think (1) educating patients about sepsis can reduce changes of infection leading to sepsis and patients experiencing sepsis; and (2) identifying/diagnosing sepsis early in patients reduces risks of sepsis deaths.

15. Can prevention measures that we discussed previously (refer to above 12 a, b, c, and d) help reduce incidence of infection and sepsis? Why? Why not?

- Can educating patients on these prevention measures contribute to decreasing infections that lead to sepsis? Why or why not?

16. Do you think that HCPs rapid recognition/diagnosis of sepsis help reduce sepsis death in patients (sepsis mortality)? Why? Why not?

- How are patient outcomes impacted by time lag between recognition/diagnosis of sepsis and initiation of sepsis treatment?

SECTION 4. SALIENT REFERENTS (10 MINUTES) (RQ 4)

Moderator: Now, I want to know who most influences your views about educating patients, best

practices to diagnose/identify infections that lead to sepsis and sepsis.

17. Who are the people, groups or information sources important to you that influence your views about practicing medicine, in general? Why these people, groups or information sources?
18. Who are the people, groups or information sources important to you that influence your views about *educating patients about infection and sepsis*? Why these people, groups or sources?
 - a. Do these [TBD] think that sepsis is an important public health threat? Why? Why not?
 - b. Do these [TBD] think that educating patients can reduce incidence of infection and sepsis?
 - c. Do these [TBD] encourage you to educate patients about infection and sepsis? How?
19. Do these people or groups work to educate patients about infection and sepsis themselves? How? Why? Why not?
20. Who are the people, groups or information sources important to you that influence your views about *rapid recognition and diagnosis of sepsis*? Why these people, groups or sources?
 - a. Do these [TBD] think rapid recognition/diagnosis of sepsis helps reduce sepsis mortality?
 - b. Do these [TBD] encourage you to take action to rapidly recognize/diagnosis sepsis? How?
21. Do these people or groups take steps to rapidly recognize/diagnosis sepsis themselves? How? Why? Why not?

SECTION 5. MESSAGE SET TESTING (10 MINUTES) (RQ 6)²

MODERATOR: NOW I WILL SHARE MESSAGES WITH YOU AND GET YOUR FEEDBACK. WHILE YOU ASSESS THE SECTION 5. MESSAGE SET TESTING (10 MINUTES) (RQ 6)³

Moderator: Now I will share messages with you and get your feedback. While you assess the messages I'm showing, keep in mind what you said earlier that you want to know about sepsis.

22. Please review a message about what we want [moderator: state HCP category: Physician Assistant, Nurse Practitioner, Emergency Department Triage Nurse, Primary Care Physician, General Medical Ward Staff, Nursing Home Staff, or Home Healthcare Provider) that do the same kind of work you do to KNOW:⁴
 - a. **NP/PA:** Be alert to the signs and symptoms of sepsis and know what to do when you suspect sepsis.
 - b. **ED triage nurse:** [moderator: please read/review each message below]

² Due to the number of questions in the HCP guide and time constraints, RQ5 to explore preferred and trusted sources will be examined only in R2 research.

³ Due to the number of questions in the HCP guide and time constraints, RQ5 to explore preferred and trusted sources will be examined only in R2 research.

⁴ For each HCP audience, we will present the KNOW statement targeted for that audience

- i. The more quickly sepsis is **recognized and** treated, **the more lives are saved.**
- ii. The more quickly sepsis is **recognized and** treated, **better patient outcomes are more likely.**
- c. **PCP:** Preventing infections while managing chronic conditions and diseases can protect your patients from sepsis.
- d. **General medical ward staff/nursing home staff/home healthcare providers:** Know the signs of sepsis to identify patients early.

23. **Moderator: For each audience ask the following.**

- a. How does this message make you feel? (e.g., empowered, educated, annoyed, etc.) Why?
- b. Is a message like this already reaching you in your clinical practice? How? When? Where?
- c. How relevant is the message to you in the work you do? Why? Why not?
- d. Is there anything that you would you change in this message? (e.g., words, phrases) What and why?
- e. [for NP/PA only] Is there a better way to communicate “Be Alert”?

24. Is there anything else you want to share with me about the messages?

Moderator: Let’s talk about “calls to action”. These are messages that ask you to do something specific to protect patients. [Moderator: Show all message sets and read all to participants]

25. Please review what we want people to DO:⁵

NP/PA:

- a. Educate your patients about the signs and symptoms of sepsis.
- b. Educate your patients about the signs and symptoms of sepsis, and when found, treat sepsis quickly.
- c. Educate your patients about infections that cause sepsis, the signs and symptoms of sepsis, and when to seek medical care for possible sepsis.
- d. **Be alert** to the signs and symptoms of sepsis and, if suspected, act fast.
- e. If suspected, act fast to treat sepsis.
- a) Prevent infections and **be vigilant** for sepsis.

[Moderator: For all messages with “Be Alert” ask:

- **What does “Be Alert” mean to you? Is there a better way to communicate “Be Alert”**

Moderator: For all messages with “Be vigilant” ask:

- **What does “Be vigilant” mean to you? Is there a better way to communicate “Be vigilant”]**

ED Triage Nurses:

- a. **Be alert** to the signs and symptoms of sepsis and, if suspected, act fast.
- b. If suspected, act fast to treat sepsis.
- c. **Be vigilant** for sepsis.

PCPs:

⁵ For each HCP target audience, different Calls to Action will be tested.

- a. Educate your patients about how to prevent infections that cause sepsis, the signs and symptoms of sepsis, and when to seek medical care for possible sepsis.
- b. Educate your patients about the signs and symptoms of sepsis, and when found, treat sepsis quickly.
- c. **Be alert** to the signs and symptoms of sepsis and, if suspected, act fast.
- d. If suspected, act fast to treat sepsis.
- e. Prevent infections and **be vigilant** for sepsis.

General Medical Ward Staff:

- a. If suspected, act fast to treat sepsis.
- b. When found, treat sepsis quickly.
- c. **Be alert** to the signs and symptoms of sepsis and, if suspected, act fast.
- d. Prevent infections and **be vigilant** for sepsis.

Nursing Home Staff/Home Healthcare Staff:

- a. Prevent infections and be vigilant for sepsis.
- b. Educate your patients/residents about the signs and symptoms of sepsis, and when found, act fast.
- c. Educate your patients/residents about infections that cause sepsis, the signs and symptoms of sepsis, and when to seek medical care for possible sepsis.
- d. **Be alert** to the signs and symptoms of sepsis and, if suspected, act fast.
- e. If you suspect sepsis, act fast and know what to do.

[Moderator: For each audience ask the following].

- a. Are they realistic? Why or why not? [Which ones? Why or why not?]
- b. Do these empower you to work to rapidly recognize/diagnosis sepsis?
- c. [For NPs/PAs] Do these motivate you to contact your manager if needed? Why?
- d. What would make it easier for you to act on this call to action?
- e. What would be the benefits of acting on this call to action?
- f. Are these calls to action feasible? Which ones are/aren't? Why/why not?
- g. Which call to action is most relevant to you in the work you do? Why or why not?
- h. Are there any barriers to any of these calls to action? Which ones? What are those barriers?
- i. Which call to action do you like the most? Why?
- j. Which call to action do you like the least? Why?

26. How does these calls to action make you feel? [Probe which ones evoke positive feelings and negative feeling] (e.g., empowered, educated, annoyed, etc.)

- a.—Are any calls to action like these already reaching [moderator: state HCP category: Physician Assistants, Nurse Practitioners, Emergency Department Triage Nurses, Primary Care Physicians, General Medical Ward Staff, Nursing Home Staff, or Home Healthcare Providers] in your clinical practice? If yes, how, when, where?

27. Is there anything else you want to share with me about the calls to action?

Moderator: For our last activity I'd like to know what you would think about inquiries from your patients or their caregivers about sepsis.

28. What would you think if your patient asks:

- a. “Could this be sepsis?”
- b. “What can I do to prevent infections that cause sepsis?”
- c. “How can I manage my condition to prevent infections that cause sepsis?”

29. What would you think if your patient’s caregiver or family member asks:

- a. “Could this be sepsis?”
- b. “Is my loved one developing symptoms of sepsis?”
- c. “Could this infection lead to sepsis?”

30. How would you respond to these inquiries?

- a. What is the best way for patients and family members to ask you about sepsis? (i.e., what would be the best way for them to pose questions about sepsis to you?)

SECTION 6. CLOSING (5 MINUTES)

31. Well, that’s the last of my questions. Do you have any questions?

Thank you again for taking the time to participate in this discussion. We sincerely appreciate and value your input!