

Patient ID: \_\_\_\_\_ State ID: \_\_\_\_\_ Initial culture date: \_\_/\_\_/\_\_\_\_

### Community-Associated CP-CRE Interview

#### CALL LOG

Telephone number: \_\_\_\_\_

	Date <i>(mm/dd/yy)</i>	Time 1 <i>(circle am or pm)</i>	Time 2
Day 1:	_____	_____ am/pm	_____ am/pm
Day 2:	_____	_____ am/pm	_____ am/pm
Day 3:	_____	_____ am/pm	_____ am/pm
Day 4:	_____	_____ am/pm	_____ am/pm
Day 5:	_____	_____ am/pm	_____ am/pm

Call no more than 10 times with 2 attempts per day for 5 days over a two week period: at least one weekday between 5-8pm; and one weekend day (Sat: 9am-6pm or Sun: 1pm-8pm).

- Call back at \_\_\_\_\_ (day) \_\_\_\_\_ (time)  
Call back at \_\_\_\_\_ (day) \_\_\_\_\_ (time)  
Call back at \_\_\_\_\_ (day) \_\_\_\_\_ (time)

#### Person to speak with:

Patient \_\_\_\_\_

- Proxy (patient with dementia or deceased from CRF MuGSI data)  
 Proxy (parent or guardian if case is under 18 years of age)

#### Patient county at the time of the positive test for CRE

State: \_\_\_\_\_ County: \_\_\_\_\_

Comments: \_\_\_\_\_

---

Patient ID: \_\_\_\_\_ State ID: \_\_\_\_\_ Date of incident specimen collection: \_\_/\_\_/\_\_\_\_

---

---

---

---

Patient ID: \_\_\_\_\_ State ID: \_\_\_\_\_ Date of incident specimen collection: \_\_/\_\_/\_\_\_\_

**ENROLLEE INTERVIEW – THIS PORTION WILL BE TRANSFERRED TO CDC**

**SECTION 1: IDENTIFIERS (TO BE FILLED OUT BY EIP STAFF)**

- 1. Patient ID: \_\_\_\_\_
- 2. State ID: \_\_\_\_\_
- 3. Provider ID: \_\_\_\_\_
- 4. Lab ID: \_\_\_\_\_
- 5. Specimen ID (accession number): \_\_\_\_\_
  
- 6. Date of incident specimen collection : \_\_\_\_/\_\_\_\_/\_\_\_\_  
(mm/dd/yyyy)
  
- 7. Age (years)
  
- 8. Sex      Male      Female

**HAVE A CALENDAR IN FRONT OF YOU.**

I will ask you questions about [you/your child’s] visits to healthcare, activities of people living in [you/your child’s] household, occupation, travel, other potentially relevant activities, and other aspects of [your/your child’s] health. It may be difficult to remember, but I would like your best guess for each question. I will be asking you about specific dates around the time [you/your child] tested positive for the CRE germ. For your reference, the germ was identified from [you/your child] on [incident specimen collection date] \_\_\_\_\_ at [facility] \_\_\_\_\_. During this interview, I will call the test for the CRE germ a “positive test for CRE.” The questions I ask you will pertain to a time period up to three years before the positive test for CRE. If you have a calendar, planner, or health records (including things like medical bills or health insurance statements from that time), it may be helpful to get those items to help recall events. Do you need a minute to go get any of these items?

*If interviewees gravitate toward answering that they don’t know/are unsure how to answer questions, encourage them to try to remember one way or another. [See Interviewer Manual]*

**Section 2: Screening for healthcare exposures in the past year**

*(Note to interviewer: this is a screening section to confirm the findings from medical record review that the MuGSI case is community-associated):*

**First, I am going to ask you some brief questions about selected healthcare visits and treatments.**

- A. Did you/your child stay overnight in a hospital in the 12 months before the positive test for CRE?  
This includes hospitals in the United States and in other countries.  
 Yes      No      DK      Refused
- a. If YES, Where were you/your child hospitalized? \_\_\_\_\_

Patient ID: \_\_\_\_\_ State ID: \_\_\_\_\_ Date of incident specimen collection: \_\_/\_\_/\_\_\_\_

B. Did you/your child stay overnight in a nursing home in the 12 months before the positive test for CRE? This includes nursing homes in the United States and in other countries.

Yes  No  DK  Refused

C. Did you/your child have surgery in the 12 months before the positive test for CRE?

Yes  No  DK  Refused

a. If YES, What kind of surgery did you/your child have? \_\_\_\_\_.  
[Reference CRF instructions to verify that the surgery reported qualifies under MuGSI criteria. If not, change the answer to “No” and record additional details in the comments section.]

D. Were you/your child receiving dialysis at the time of the positive test for CRE?

Yes  No  DK  Refused

E. I am going to ask about medical devices. These are types of medical equipment that are put in your body to either give you things, like food or medications or oxygen, or take things out, like collect blood or urine. On the day of your/your child’s positive test for CRE or in the 2 days before the positive test for CRE, did you/your child have any medical devices in your body?

Yes  No  DK  Refused

a. If YES, What type of medical device did you/your child have?

\_\_\_\_\_  
[Reference CRF instructions to verify that the medical device reported qualifies under MuGSI criteria. If not, change the answer to “No” and record additional details in the comments section.]

**[If the patient answered “YES” to any of the questions in the screening section, then STOP the interview after saying “Thank you for your time. We are only interviewing people who have not had any of these healthcare encounters. We will contact you if we have further questions.” If the patient answered “No”, “DK”, “Refused”, then continue the interview and go to Section 3: Healthcare exposures.]**

### **Section 3: Healthcare exposures**

I will now ask you additional questions about your/your child’s healthcare in the past.

1. I have already asked you about medical devices during the two days before the positive test for CRE. Did you/your child have any **medical devices** in your body in the 12 months before the positive test for CRE?

Yes  No  DK  Refused

a. If YES, specify: \_\_\_\_\_.

I will now ask you about hospitalizations, staying in a nursing home, surgeries, home medical care, and medical procedures before the positive CRE test.

2. Had you/your child ever stayed overnight in a hospital before the positive test for CRE?

Yes  No  DK  Refused

- a. If YES, when was your/your child's most recent stay in a hospital? (mm/dd/yy) \_\_\_\_\_
3. Had you/your child ever stayed overnight in a nursing home before the positive test for CRE?  
 Yes       No       DK       Refused
- a. If YES, when was your/your child's most recent stay in a nursing home? (mm/dd/yy)  
\_\_\_\_\_
4. Did you/your child receive dialysis in the 12 months before the positive test for CRE?  
 Yes       No       DK       Refused
5. Did you/your child go to a clinic or infusion center to have medications injected through your/your child's veins in the 12 months before the positive test for CRE? Medications commonly injected through the veins include those given for cancer chemotherapy and some antibiotics. [**If needed** - an infusion clinic is a place outside of the hospital that provides medications through your veins; chemotherapy is medication given for cancer treatment; antibiotics are medicines that fight infections caused by bacteria in humans and animals by either killing the bacteria or making it difficult for the bacteria to grow and multiply.]  
 Yes       No       DK       Refused
- a. If YES, what was the reason for visiting this clinic or facility? \_\_\_\_\_
6. Did you/your child have any wounds that would not heal for more than two weeks, like a foot ulcer, in the 12 months before the positive test for CRE?  
 Yes       No [**skip to Q10**]       DK [**skip to Q10**]       Refused [**skip to Q10**]
7. Who took care of the wound? This includes care in a clinic, the hospital, or your/your child's home. [note: wound care specialists can come from a variety of healthcare professions such as physicians, nurses, physical/occupational therapists, and pharmacists] (check all that apply).  
 Self  
 Relative or friend  
 Wound care specialist  
 Other (specify: \_\_\_\_\_)  
 DK  
 Refused
8. Did this involve hydrotherapy or whirlpool therapy [**if needed** - techniques that involves the use of water to aid with cleaning or healing]?  
 Yes       No       DK       Refused
9. Was a wound VAC used during your/your child wound care [**if needed** - a wound VAC is a device consisting of a machine that connects to a dressing over a wound and sucks fluid out of the wound to help the wound heal more quickly]?  
 Yes       No       DK       Refused
10. Did you/your child receive any care from home healthcare providers (for example, visiting nurses, wound care providers) in the 12 months before the positive test for CRE?  
 Yes       No       DK       Refused

a. If YES, can you describe the services they provided for you/your child?

\_\_\_\_\_

\_\_\_\_\_

11. Did you/your child have urinary procedures or other procedures where a doctor used a scope to look inside your bowel, stomach, lungs, etc. (e.g. endoscopy, colonoscopy) in the 12 months before the positive test for CRE?

- Yes       No       DK       Refused

a. If YES, what was the name of the procedure? \_\_\_\_\_

**Section 4: Travel**

Next, I will ask you for some information about travel and residence outside of the United States (U.S).

12. Did you/your child travel or reside outside of the U.S. in the 3 years before the positive test for CRE?

- Yes [complete the table]     No **[skip to Section 5]**       DK **[skip to Section 5]**  
 Refused **[skip to Section 5]**

a. If YES, What country or countries did you/your child visit? During what year or years did you/your child go to [country]?

Country	Years
a)	_____ to _____
b)	_____ to _____

13. Did you/your child receive any dental or medical care during your travels outside of the U.S. in the 3 years before the positive test for CRE? This includes but not limited to dental cleanings or dental procedures, visits to outpatient clinics, overnight stays in hospitals, surgeries, endoscopies, cosmetic surgery, medication infusions, or other types of medical or dental care.

- Yes     No **[skip to Section 5]**     DK **[skip to Section 5]**     Refused **[skip to Section 5]**

If YES, [use the table below to record responses to the following questions]:

- In what country did you/your child receive your dental care/healthcare?
- What type of care did you/your child receive?
- Approximately what year or years did you/your child receive dental care/healthcare?
- Was getting medical care one of the reasons why you/your child travelled? [medical tourism]

13a. Country	13b. Dental care/Healthcare Received	13c. Years	13d. Medical tourism?
	<input type="checkbox"/> Hospitalization <input type="checkbox"/> Surgery <input type="checkbox"/> Other procedure (specify: _____) <input type="checkbox"/> Dental care	_____ to _____	<input type="checkbox"/> Yes <input type="checkbox"/> No

	<input type="checkbox"/> Other healthcare (specify: _____)	
--	--	--

**Section 5: Antibiotics**

Next, I will ask for information about antibiotics. Antibiotics are medicines that fight infections caused by bacteria in humans and animals by either killing the bacteria or making it difficult for the bacteria to grow and multiply.

14. Did you/your child take antibiotics in the 12 months before the positive test for CRE? For example, people commonly take antibiotics for urinary tract infections, sore throats, sinus infections, boils or other skin infections, and for dentistry purposes.
- Yes     No [**skip to Section 6**]     DK [**skip to Section 6**]     Refused [**skip to Section 6**]

If YES,

a. Why did you/your child take antibiotics? (**check all that apply**):

- Urinary tract infection
- Dental cleaning
- Oral surgery
- Ear, sinus, or other upper respiratory infection
- Pneumonia
- Skin infection
- Acne
- Other infection (specify: \_\_\_\_\_)
- Other reason (specify: \_\_\_\_\_)
- DK
- Refused

b. What antibiotics did you/your child take? [**do NOT read list below; check all that apply**]

- DK     Refused

<input type="checkbox"/> Amoxicillin	<input type="checkbox"/> Ciprofloxacin or Cipro	<input type="checkbox"/> Nitrofurantoin
<input type="checkbox"/> Amoxicillin/Clavulanate	<input type="checkbox"/> Clarithromycin	<input type="checkbox"/> Norfloxacin or Norflox
<input type="checkbox"/> Ampicillin	<input type="checkbox"/> Cleocin	<input type="checkbox"/> Ofloxacin or Oflox
<input type="checkbox"/> Augmentin	<input type="checkbox"/> Clindamycin	<input type="checkbox"/> Omnicef
<input type="checkbox"/> Azithromycin	<input type="checkbox"/> Dapsone	<input type="checkbox"/> Penicillin or Pen VK
<input type="checkbox"/> Bactrim	<input type="checkbox"/> Doxycycline	<input type="checkbox"/> Pediazole
<input type="checkbox"/> Biaxin	<input type="checkbox"/> Duricef	<input type="checkbox"/> Septra
<input type="checkbox"/> Ceclor	<input type="checkbox"/> Erythromycin	<input type="checkbox"/> Suprax
<input type="checkbox"/> Cefaclor	<input type="checkbox"/> Erythromycin/sulfa	<input type="checkbox"/> Tetracycline
<input type="checkbox"/> Cefadroxil	<input type="checkbox"/> Flagyl	<input type="checkbox"/> Tequin
<input type="checkbox"/> Cefdinir	<input type="checkbox"/> Floxin	<input type="checkbox"/> Trimox
<input type="checkbox"/> Ceftin	<input type="checkbox"/> Keflex	<input type="checkbox"/> Trimethoprim-sulfamethoxazole
<input type="checkbox"/> Cefixime	<input type="checkbox"/> Keftab	<input type="checkbox"/> Zagam
<input type="checkbox"/> Cefuorixime	<input type="checkbox"/> Levofloxacin	<input type="checkbox"/> Zithromax or Z-Pak
<input type="checkbox"/> Cefzil	<input type="checkbox"/> Levaquin	<input type="checkbox"/> Other antibiotic 1 (specify : _____)
<input type="checkbox"/> Cefprozil	<input type="checkbox"/> Macrodantin or macrobid	<input type="checkbox"/> Other antibiotic 2 (specify: _____)
<input type="checkbox"/> Cephalexin	<input type="checkbox"/> Monurol	
<input type="checkbox"/> Cephradine	<input type="checkbox"/> Metronidazole	

**Section 6: Occupation:**

For the next questions, I will ask you for information about your/your child’s occupation and related activities in the 12 months before the positive test for CRE.

15. Were you/your child employed at the time of the positive test for CRE?

- Yes                       No                       DK                       Refused

a. If YES, what was your/your child’s job? **[Refer to standard list of occupations]**

\_\_\_\_\_

16. Did you/your child work or volunteer at a hospital, healthcare facility, or home health agency in the 12 months before the positive test for CRE?

- Yes **[complete the table]**  No **[skip to Q18]**  DK **[skip to Q18]**  Refused **[skip to Q18]**

**If YES, [use the table below to record responses to the following questions]:**

For each position that you/your child held in healthcare in the 12 months before the positive test for CRE:

- a. What was your/your child role there?
- b. What type of healthcare facility or organization did you/your child work in?
- c. Did your/your child’s job involve direct physical contact during care for patients?

16a. Role (complete later with standard OMB categories)	16b. Healthcare Facility/agency Type*	16c. Did your/your child’s job involve direct physical contact during care for patients?
		<input type="checkbox"/> Yes [complete Q17] <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Ref
		<input type="checkbox"/> Yes [complete Q17] <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Ref

[\* Facility types include hospital, emergency department, doctor’s office or clinic, dentist, long-term care facility, hemodialysis, home health agency, ambulatory surgery center, other (specify), and should be independently verified against EIP facility classification lists after receiving the name of the facility]

17. **[If respondent’s job involved direct physical contact during care for patients]** Please describe your/your child’s direct physical contact during care for patients:

\_\_\_\_\_

**[If the description of direct physical contact during care for patients does not include the following activities, ask for clarification on each activity]:**

Bathing patient	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Ref
Assisting with toileting	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Ref
Assisting with other hygiene	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Ref
Caring for a patient known to have CRE	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Ref

a. **[If respondent had direct physical contact during care for patients]** How old were these persons you/your child provided care for? (check all that apply)



- <1 y.o.  1-17 y.o.  18-39 y.o.  40-65 y.o.  >65 y.o.  DK  Refused

18. Did you/your child work or volunteer in a veterinary clinic or in another animal care facility in the 12 months before the positive test for CRE?

- Yes  No [**skip to Section 7**]  DK [**skip to Section 7**]  Refused [**Section 7**]

**If YES, [use the table below to record answers to]:**

- a. What was your/your child’s role there?  
 b. Did you/your child provide direct animal care?

18a. Role (complete later with standard OMB categories)	18b. Did you/your child provide direct animal care?
	<input type="checkbox"/> Yes [complete Q. 19] <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Ref
	<input type="checkbox"/> Yes [complete Q. 19] <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Ref

19. **[If respondent provided direct animal care]** Please describe your/your child’s animal care duties, including the types of animals cared for:

---

**Section 7: Agricultural and animal exposures**

Next, I am going to ask you questions about agricultural and animal exposures in the 12 months before the positive test for CRE.

20. Did you/your child have any pets in your household in the 12 months before the positive test for CRE?

- Yes  No [**skip to Q21**]  DK [**skip to Q21**]  Refused [**skip to Q21**]

a. If YES, what kind of pets? (check all that apply)

- Cat  Dog  Rodent  Reptile  Bird  Other: \_\_\_\_\_  
 Refused

b. Did your/your child’s pet receive any veterinary care in the 12 months before the positive test for CRE?

- Yes  No  DK  Refused

i. If YES, what type of healthcare did your/your child’s pet receive? (check all that apply)

- Stayed in veterinary hospital  
 Stayed in ICU  
 Surgery  
 Other procedures  
 Sick clinic visits  
 Routine clinic visits  
 Other (specify: \_\_\_\_\_)  
 DK  
 Refused

c. Were you/your child ever told your pet had CRE?

- Yes  No  DK  Refused

d. Was your/your child's pet imported into the United States from another country?

- Yes  No  DK  Refused

e. If **YES**, what country? \_\_\_\_\_

21. Did you/your child live or work with livestock like cattle, sheep, goats or other animals in the 12 months before the positive test for CRE?

- Yes  No **[skip to Section 8]**  DK **[skip to Section 8]**  Refused **[skip to Section 8]**

a. If **YES**, what types of animals did you/your child live or work with? (check all that apply)

- Dairy cattle  Beef cattle  Goat  Turkey  
 Swine  Sheep  Chicken  Other: \_\_\_\_\_  
 Refused

### **Section 8: Household contacts:**

Next, I am going to ask you a few questions about activities of your/your child's household members and other contacts, related to some of the topics we have previously talked about with you. Members of your/your child's household are persons who spent at least 50% of their nights in your/your child's household during the 12 months before the positive test for CRE.

22. How many people, including yourself, lived in your household in the 12 months before the positive test for CRE? \_\_\_\_\_

- DK **[skip to Section 9]**  Refused **[skip to Section 9]**

**[If answer to Q22 = 1, i.e., interviewee lives alone, skip to Section 9]**

Concerning other people who lived in your/your child's household:

23. Was a member of your/your child's household diagnosed with a CRE germ in the 12 months before your positive test for CRE?

- Yes  No  DK  Refused

#### **IF YES**

a. Was this a family member?

- Yes  No  DK  Refused

24. Did a member of your/your child's household stay overnight in a hospital or nursing home in the 12 months before your positive test for CRE?

- Yes  No  DK  Refused

#### **If YES, [ask the following questions]:**

a. In what type of facility or facilities did this person stay?

- Hospital  Nursing home

25. Did a member of your/your child's household travel or live outside of the U.S. in the 12 months before your positive test for CRE?

- Yes  No **[skip to Section 9]**  DK **[skip to Section 9]**  Refused **[skip to Section 9]**

26. Did a member of your/your child’s household receive any dental care or medical care outside of the U.S. in the 12 months before your positive test for CRE? (Incl. but not limited to dental care/procedures, outpatient clinics, inpatient hospitalizations, surgeries, endoscopies, cosmetic surgery, etc.)

- Yes [complete the table]  No [skip to Section 9]  DK [skip to Section 9]  Refused [skip to Section 9]

**If YES [to “Received healthcare/dental care,” use the table below to record responses for the following questions]:**

- a. In what country did a member of your/your child’s household receive dental care or medical care?
- b. What type of care was received (list choices)?
- c. Was getting medical care one of the reasons why this household member travelled? [Medical tourism]

26a. Country	26b. Dental/Healthcare Received	26c. Medical tourism?
	<input type="checkbox"/> Hospitalization <input type="checkbox"/> Surgery <input type="checkbox"/> Other procedure (specify: _____) <input type="checkbox"/> Dental care <input type="checkbox"/> Other healthcare (specify: _____)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don’t know

**Section 9: Other contacts**

Now, I will ask you a couple of questions about other people you/your child may have been in close contact with who are not members of your/your child’s household .

27. Did you/your child assist someone outside your household with bathing, toileting, or moving around the house during the 12 months before your positive test for CRE?

- Yes  No  DK  Refused

a. If YES, did this person/persons stay overnight in a hospital or nursing home during the 12 months before your positive test for CRE?

- Yes  No  DK  Refused

b. How old were these persons? (check all that apply)

- <1 y.o.  1-17 y.o.  18-39 y.o.  40-65 y.o.  >65 y.o.  DK  Refused

**Section 10: Activities and health**

I am going to ask some questions about your/your child’s health at the time of or before the positive test for CRE on [test date] \_\_\_\_\_.

Patient ID: \_\_\_\_\_ State ID: \_\_\_\_\_ Date of incident specimen collection: \_\_/\_\_/\_\_\_\_

28. Did you/your child need help bathing, toileting, or moving around the house at the time of the positive test for CRE?

- Yes       No       DK       Refused

29. Did you/your child have repeated urinary tract infections in the 12 months before positive test for CRE, which is defined as two or more infections in six months or three or more infections in one year?

- Yes       No       DK       Refused

**Section 11: Final questions**

30. Were you/your child born outside of the U.S.? We ask this because studies have shown that people who were born in another country are more likely to have antibiotic resistant bacteria.

- Yes       No       DK       Refused

a. If YES, What country were you/your child born in? \_\_\_\_\_

31. How do you think you/your child got CRE germ? \_\_\_\_\_

32. Is there anything else you/your child would like to tell us? \_\_\_\_\_

33. Can we call you back at this number if we have any further questions?

- Yes  
 No

34. Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

35. Interview completed? \_\_\_\_ Yes \_\_\_\_ No

36. Date of interview \_\_/\_\_/\_\_\_\_\_  
(mm/dd/yyyy)

37. Interviewer initials: \_\_\_\_\_