## **Cross walk - 2021 form changes**

### **HAIC**

Question on original 2021 form

26a. Was the incident specimen tested for carbapenemase?

# 1) MuGSI Case Report Form for Carbapenem-resistant Enterobacteriaceae (CRE) and Acinetobacter baumannii (CRAB)

Question on revised 2021 form

26a. Was the incident specimen tested for carbapenemase

Note: Changes for the updated 2021 CRF are highlighted in yellow.

Yes					genes?				
No					• Yes				
• Laboratory not testing					• No				
Unknown	Laboratory not testing								
	Unknown								
26b. If yes, what testing me	thod was	s used (ch	eck all th	at apply)	26b. If yes, what testing n	nethod wa	s used (ch	eck all tha	at apply)
Non-Molecular Tests:					Non-Molecular Test Methods:				
• CarbaNP					• CarbaNP				
<ul> <li>Carbapenemase Inactivati</li> </ul>	ion Meth	od (CIM)			Carbapenemase Inactivation Method (CIM)				
<ul><li>Disk Diffusion/ROSCO Disk</li></ul>	k				• Disk Diffusion/ROSCO D	isk			
• E-test					• E-test				
<ul> <li>Modified Carbapenemase</li> </ul>	Inactivat	tion Meth	od (mCIN	1)	<ul> <li>Modified Carbapenema</li> </ul>	se Inactiva	tion Meth	od (mCIM	1)
<ul><li>Modified Hodge Test (MH</li></ul>	IT)				<ul> <li>Modified Hodge Test (M</li> </ul>	1HT)			
RAPIDEC					RAPIDEC				
Other (specify):					Other (specify):				
Unknown					Unknown				
Molecular Tests:					Molecular Test Methods:				
<ul> <li>Automated Molecular Ass</li> </ul>	say				Automated Molecular A	ssay			
• Carba-R					• Carba-R				
Check Points					• Check Points				
MALDI-TOF MS					• MALDI-TOF MS				
Next Generation Nucleic Acid Sequencing					Next Generation Nucleic Acid Sequencing				
PCR					• PCR				
Streck ARM-D					• Streck ARM-D				
Other (specify):		_			Other (specify):		_		
Unknown					• Unknown				
26c. If tested, what was the	testing r	result?			26c. If tested, what was the testing result?				
Non-Molecular Test Results	<b>5:</b>				Non-Molecular Test Results:				
□ Positive					□ Positive				
□ Negative					□ Negative				
□ Indeterminate					□ Indeterminate				
□ Unknown					□ Unknown				
Molecular Test Results:					Molecular Test Results:				
□NDM	□ Pos	□ Neg	□ Ind	□ Unk	□ NDM	□ Pos	□ Neg	□ Ind	□ Unk
□ KPC	□ Pos	□ Neg	□ Ind	□ Unk	□ KPC	□ Pos	□ Neg	□ Ind	□ Unk
□ OXA	□ Pos	□ Neg	□ Ind	□ Unk	☐ OXA (specify):	□ Pos	□ Neg	□ Ind	□ Unk
□ OXA-48	□ Pos	□ Neg	□ Ind	□ Unk	□VIM	□ Pos	□ Neg	□ Ind	□ Unk
□ VIM □ Pos □ Neg □ Ind □ Unk					□IMP	□ Pos	□ Neg	□ Ind	□ Unk

□IMP	□ Pos	□ Neg	□ Ind	□ Unk	☐ Other carbapenemase	□ Pos	□ Neg	□ Ind	□ Unk
□ Other	□ Pos	□ Neg	□ Ind	□ Unk	gene				
Specify:					(specify):				
					27a. Was the incident speci	men test	ed for ESE	RI produc	tion or
					other beta-lactamase genes		.ca for Est	or produc	tion or
					• Yes	<del></del>			
					• No				
					<ul> <li>Laboratory not testing</li> </ul>				
					<ul><li>Unknown</li></ul>				
					27b. If tested, what testing	method	was used?	? (Check a	<mark>ll that</mark>
					<mark>apply)</mark>				
					<ul> <li>Broth microdilution (ATI d</li> </ul>	letection)	<mark>)</mark>		
					• ESBL well				
					<ul> <li>Expert rule (ATI flag)</li> </ul>				
					• Unknown				
					<ul><li>Broth Microdilution (Man</li><li>Disk Diffusion</li></ul>	uai)			
					• E-test				
					<ul> <li>Molecular test (specify)</li> </ul>				
					<ul><li>Gene variant (specify)</li></ul>				
					<ul> <li>Other non-molecular test</li> </ul>	(specify)			
					27c. If tested, what was the				
					<ul><li>Positive</li></ul>				
					<ul><li>Negative</li></ul>				
					<ul> <li>Indeterminate</li> </ul>				
					• Unknown				
27. Susceptibility results					28. Susceptibility results				
Antibiotic					Antibiotic				
Amikacin					Amikacin				
Amoxicillin/Clavulanate					Amoxicillin/Clavulanate				
Ampicillin					Ampicillin				
Ampicillin/Sulbactam					Ampicillin/Sulbactam				
Aztreonam					Aztreonam				
Cefazolin					Cefazolin				
Cefepime					Cefepime				
Cefiderocol					Cefiderocol				
Cefotaxime Cefoxitin					Cefotaxime Cefoxitin				
Ceftazidime					Ceftazidime				
Ceftazidime/Avibactam					Ceftazidime/Avibactam				
Ceftolozane/Tazobactam					Ceftolozane/Tazobactam				
Ceftriaxone					Ceftriaxone				
Cephalothin					Cephalothin				
Ciprofloxacin					Ciprofloxacin				
Colistin					Colistin				
Doripenem					Doripenem				
Doxycycline					Doxycycline				

Eravacycline	Eravacycline
Ertapenem	Ertapenem
Fosfomycin	Fosfomycin
Gentamicin	Gentamicin
Imipenem	Imipenem
Imipenem-relebactam	Imipenem-relebactam
Levofloxacin	Levofloxacin
Meropenem	Meropenem
Meropenem-vaborbactam	Meropenem-vaborbactam
Minocycline	Minocycline
Nitrofurantoin	Nitrofurantoin
Omadacycline	Omadacycline
Piperacillin/Tazobactam	Piperacillin/Tazobactam
Plazomicin	Plazomicin
Polymyxin B	Polymyxin B
Rifampin	Rifampin
Tetracycline	Tetracycline
Tigecycline	Tigecycline
Tobramycin	Tobramycin
Trimethoprim-sulfamethoxazole	Trimethoprim-sulfamethoxazole
Data source	Data source
Medical record	Medical record
Medical record Microscan	Medical record Microscan
Microscan	Microscan
Microscan Vitek	Microscan Vitek
Microscan Vitek Phoenix	Microscan Vitek Phoenix
Microscan Vitek Phoenix Sensititre	Microscan Vitek Phoenix Sensititre
Microscan Vitek Phoenix Sensititre Kirby-Bauer	Microscan Vitek Phoenix Sensititre Kirby-Bauer
Microscan Vitek Phoenix Sensititre Kirby-Bauer E-test	Microscan Vitek Phoenix Sensititre Kirby-Bauer E-test
Microscan Vitek Phoenix Sensititre Kirby-Bauer E-test 28a. Was case first identified through audit?	Microscan Vitek Phoenix Sensititre Kirby-Bauer E-test  29a. Was the case first identified through an audit?
Microscan Vitek Phoenix Sensititre Kirby-Bauer E-test 28a. Was case first identified through audit?  • Yes	Microscan Vitek Phoenix Sensititre Kirby-Bauer E-test  29a. Was the case first identified through an audit?  • Yes
Microscan Vitek Phoenix Sensititre Kirby-Bauer E-test  28a. Was case first identified through audit?  • Yes • No	Microscan Vitek Phoenix Sensititre Kirby-Bauer E-test  29a. Was the case first identified through an audit?  • Yes • No
Microscan Vitek Phoenix Sensititre Kirby-Bauer E-test 28a. Was case first identified through audit?  • Yes • No 28b. CRF status	Microscan Vitek Phoenix Sensititre Kirby-Bauer E-test  29a. Was the case first identified through an audit?  • Yes • No  29b. CRF status
Microscan Vitek Phoenix Sensititre Kirby-Bauer E-test  28a. Was case first identified through audit?  • Yes • No  28b. CRF status • Complete • Pending	Microscan Vitek Phoenix Sensititre Kirby-Bauer E-test  29a. Was the case first identified through an audit?  • Yes • No  29b. CRF status • Complete • Pending
Microscan Vitek Phoenix Sensititre Kirby-Bauer E-test  28a. Was case first identified through audit?  • Yes • No  28b. CRF status • Complete	Microscan Vitek Phoenix Sensititre Kirby-Bauer E-test  29a. Was the case first identified through an audit?  • Yes • No  29b. CRF status • Complete
Microscan Vitek Phoenix Sensititre Kirby-Bauer E-test 28a. Was case first identified through audit? • Yes • No 28b. CRF status • Complete • Pending • Chart unavailable after 3 requests	Microscan Vitek Phoenix Sensititre Kirby-Bauer E-test  29a. Was the case first identified through an audit?  • Yes • No  29b. CRF status • Complete • Pending • Chart unavailable after 3 requests
Microscan Vitek Phoenix Sensititre Kirby-Bauer E-test 28a. Was case first identified through audit? • Yes • No 28b. CRF status • Complete • Pending • Chart unavailable after 3 requests	Microscan Vitek Phoenix Sensititre Kirby-Bauer E-test  29a. Was the case first identified through an audit?  • Yes • No  29b. CRF status • Complete • Pending • Chart unavailable after 3 requests
Microscan Vitek Phoenix Sensititre Kirby-Bauer E-test  28a. Was case first identified through audit?  • Yes • No  28b. CRF status • Complete • Pending • Chart unavailable after 3 requests  28c. SO initials	Microscan Vitek Phoenix Sensititre Kirby-Bauer E-test  29a. Was the case first identified through an audit?  • Yes • No  29b. CRF status • Complete • Pending • Chart unavailable after 3 requests  29c. SO initials
Microscan Vitek Phoenix Sensititre Kirby-Bauer E-test  28a. Was case first identified through audit?  • Yes • No  28b. CRF status • Complete • Pending • Chart unavailable after 3 requests  28c. SO initials	Microscan Vitek Phoenix Sensititre Kirby-Bauer E-test  29a. Was the case first identified through an audit?  • Yes • No  29b. CRF status • Complete • Pending • Chart unavailable after 3 requests  29c. SO initials  29d. Date of abstraction
Microscan Vitek Phoenix Sensititre Kirby-Bauer E-test  28a. Was case first identified through audit?  • Yes • No  28b. CRF status • Complete • Pending • Chart unavailable after 3 requests  28c. SO initials  28d. Date of abstraction	Microscan Vitek Phoenix Sensititre Kirby-Bauer E-test  29a. Was the case first identified through an audit?  • Yes • No  29b. CRF status • Complete • Pending • Chart unavailable after 3 requests  29c. SO initials

#### 2) Multi-site Gram-Negative Surveillance Initiative (MuGSI)- Extended-Spectrum Beta-Lactamase-Producing Enterobacteriaceae (ESBL)

Note: Changes for the updated 2021 ESBL CRF are highlighted in yellow.

Question on original 2021 form	Question on revised 2021 form
	26b. Was the incident specimen tested for ESBL production or
	other beta-lactamase genes?
	• Yes
	• No
	<ul> <li>Laboratory not testing</li> </ul>
	• Unknown
26b. What screening/confirmatory method was used for ESBL	26c. If tested, what testing method was used? (Check all that
identification? (Check all that apply)	apply)
• None	Broth microdilution (ATI detection)
Unknown	• ESBL well
Broth microdilution (ATI detection)	• Expert rule (ATI flag)
• ESBL well	• Unknown
• Expert rule (ATI flag)	Broth Microdilution (Manual)
• Unknown	Disk Diffusion
Broth Microdilution (Manual)	• E-test
Disk Diffusion	Molecular test (specify)
• E-test	• Gene variant (specify)
Molecular test (specify)	Other non-molecular test (specify)
Other non-molecular test (specify)	
26c. If screening/confirmatory method was used, what was the	26c. If tested, what was the result?
result?	• Positive
• Positive	Negative
Negative	Indeterminate
Indeterminate	• Unknown
• Unknown	

## 3) Annual Survey of Laboratory Testing Practices for C. difficile Infections

Current	Proposed		
Is this a new laboratory?	Was this a new laboratory in 2020?		
Is this lab participating in surveillance?	Did this lab participate in surveillance in 2020?		
How often do you receive line lists from this lab?	How often did you receive line lists from this lab		
○ Daily	in 2020?		
○ Weekly	○Whenever there is a positive case		
○ Monthly	○ Daily		
○ Annually	○ Weekly		
○ Never	○ Monthly		
○ Other	○ Annually		
	○ Never		
	○ Other		
How do you receive line lists from this lab?	How did you receive line lists from this lab in		
	2020?		
Do you receive specimens from this lab?	Did you receive specimens from this lab in 2020?		
Types of facilities in your catchment area served	Types of facilities in your catchment area served		
by this lab (select all that apply):	by this lab in 2020 (select all that apply):		
Does your laboratory ever send specimens off-	Did your laboratory ever send specimens off-		
site for Clostridioides difficile testing?	site for Clostridioides difficile testing in 2020?		
What type and order of testing is routinely	2. What type and order of testing was routinely		
used by your laboratory in standard testing for C.	used by your laboratory in standard testing for C.		
difficile?	difficile on December 31, 2020?		
	amilia di 2000mba di 2020		
2a. Which specimens are used during your 2 <sup>nd</sup> line	2a. Which specimens were used during your 2 <sup>nd</sup>		
of testing?	line of testing?		
2b. Which specimens are used during your 3 <sup>rd</sup> line	2b. Which specimens were used during your 3 <sup>rd</sup>		
of testing?	line of testing?		
2c. Does your laboratory perform any onsite	2c. Did your laboratory perform any onsite		
testing for C. difficile outside of your normal	testing for C. difficile outside of your normal		
testing algorithm?	testing algorithm in 2020?		
3a. Which EIA test kit is currently used by your	3a. Which EIA test kit was used by your		
laboratory?	laboratory in 2020?		
3b. Which Nucleic Acid Amplification test is	3b. Which Nucleic Acid Amplification test was		
currently used by your laboratory?	used by your laboratory in 2020?		
4a. If your laboratory uses a multiplexed	4a. If your laboratory used a multiplexed		
molecular diagnostic (e.g., Biofire Filmarray GI	molecular diagnostic (e.g., Biofire Filmarray GI		
Panel, Luminex xTAG GPP) to test for several GI	Panel, Luminex xTAG GPP) to test for several GI		
pathogens, does your laboratory suppress the C.	pathogens in 2020, did your laboratory suppress		
diff result so that clinicians cannot see it?	the C. difficile result so that clinicians could not		
□ Yes, always	see it?		

	Yes, at clinician request		Yes, C. difficile result is always suppressed
	Yes, but will release the result upon		Yes, C. difficile result is suppressed at
	clinician request		clinician request
	Yes, sometimes		Yes, C. difficile result is suppressed but
	Specify:		laboratory will release the result upon
	No, clinicians always see C. diff result		clinician request
	N/A (Do not use multiplexed molecular		Yes, C. difficile result is suppressed in
	diagnostic)		certain situations
			Specify:
			No, clinicians always see <i>C. difficile</i> result
			N/A (Do not use multiplexed molecular
			diagnostic)
4b. If y	our laboratory uses a multiplexed	4b. If yo	our laboratory used a multiplexed
diagno	stic and the result is suppressed, where	diagnos	stic in 2020 and the result was suppressed,
does th	ne suppression occur?	where	does the suppression occur?
	At the multiplexed molecular diagnostic		C. difficile result is suppressed at the
	instrument level (the result is not		multiplexed molecular diagnostic
	entered into the laboratory information		instrument level (the result is not
	management system (LIMS))		entered into the laboratory information
	At the laboratory information		management system (LIMS))
	management system (LIMS) level		C. difficile result is suppressed at the
	Other		laboratory information management
	Specify:		system (LIMS) level
	N/A (Do not use multiplexed molecular		C. difficile result is suppressed
	diagnostic or the result is never		somewhere else
	suppressed)		Specify:
			N/A (Do not use multiplexed molecular
			diagnostic or the result is never
			suppressed)
[questi	on did not exist]	-	our laboratory used a nucleic acid
		-	cation test (NAAT) (e.g., Cepheid Xpert <i>C</i> .
			) as <u>first line testing</u> <i>followed</i> by a toxin
			t (whenever NAAT result is positive) in
			lid your laboratory suppress the positive
		NAAT r	esult so that clinicians could not see it?
			Yes, NAAT result is always suppressed
			when NAAT result is positive and
			confirmatory toxin EIA result is negative
			Yes, NAAT result is always suppressed but
			laboratory will release the positive NAAT
			result upon clinician request
			Yes, NAAT result is suppressed in certain
			situations
			Specify:

	<ul> <li>No, clinicians always see the positive</li> <li>NAAT result</li> <li>N/A (Do not use this type of multistep algorithm testing)</li> </ul>
[question did not exist]	5b. If your laboratory used NAAT as first line testing followed by confirmatory toxin EIA testing in 2020, and both the NAAT and toxin EIA results were released to the clinician, did your laboratory provide any comments to help the clinician interpret the test results (e.g., NAAT-positive only result might represent colonization, etc.)?  Yes, laboratory provides comments to accompany the test results  O If yes, please specify the comments your laboratory uses to accompany the test results:
	□ No, laboratory does not provide comments to accompany the test results □ The laboratory provides comments to accompany the test results in certain situations □ If yes, please specify the situations in which your laboratory provides comments and the comments your laboratory uses to accompany the test results:
	■ N/A (Do not use this type of multistep algorithm testing or NAAT test result is always suppressed)
5. What are the LOINC or internal testing codes associated with the tests your lab currently uses (e.g. LOINC codes 13957-6, 34713-8, or 54067-4)?	6. What are the LOINC or internal testing codes associated with the tests your lab used in 2020 (e.g. LOINC codes 13957-6, 34713-8, or 54067-4)?
[question did not exist]	7a. In 2020, did your laboratory experience any shortages in supplies, reagents, and/or test kits for performing <i>C. difficile</i> testing (e.g., NAAT or EIA reagents, swabs)?  □ Yes
	O If yes, please specify the dates during which the supply shortage occurred (provide approximate

	dates if the exact dates are not
	known):
	□ No
	□ N/A (C. difficile testing was not routinely
	performed on onsite)
[question did not exist]	7b. If your laboratory experienced a supply
	shortage for <i>C. difficile</i> testing in 2020, how
	did the shortage affect your laboratory's
	ability to perform <i>C. difficile</i> testing? ( <i>Check</i>
	all that apply)
	□ We had to decrease the frequency of <i>C</i> .
	difficile testing during the shortage
	method to test for <i>C. difficile</i> during the shortage
	☐ We were not able to perform any type of
	C. difficile testing during the shortage
	□ We had to send all C. difficile testing
	offsite to another laboratory
	☐ The shortage did not affect our ability to
	perform C. difficile testing
	□ Other, specify:
	d offici, specify.
	———  □ N/A (C. difficile testing was not routinely
	performed onsite)
[question did not exist]	7c. In 2020, did your laboratory experience a high
[question and not exist]	demand for COVID-19 testing that limited the
	availability of staff (e.g., reduced staffing or work
	time) or the use of equipment to perform <i>C</i> .
	difficile testing?
	□ Yes
	□ No
	□ N/A (C. difficile testing and/or COVID-19
	testing was not routinely performed
	onsite)
6. Has your lab testing algorithm for <i>C. difficile</i>	8. Did your lab testing algorithm for <i>C. difficile</i>
changed since January 1, 2020?	change between January 1, 2020 and December
changed since January 1, 2020:	31, 2020?
6a. (If yes) What was your previous type and	8a. (If yes) What was the previous type and order
order of testing?	of testing performed by your lab in 2020 <u>before</u> it
	changed its testing algorithm?
6b. Which specimens were used during your 2 <sup>nd</sup>	8b. Which specimens were used during your 2 <sup>nd</sup>
line of testing?	line of testing?

6c. Which specimens were used during your 3 <sup>rd</sup>	8c. Which specimens were used during your 3 <sup>rd</sup>
line of testing?	line of testing?
7. Does your lab have a policy to reject stool	9. Did your lab have a policy to reject stool
specimens for C. difficile testing?	specimens for C. difficile testing in 2020?
7a. Has your rejection policy for stool specimens	9a. Did your rejection policy for stool specimens
changed since January 1, 2020?	change between January 1, 2020 and December
	31, 2020?
8. How many stool samples did you test for C. diff	10. How many stool samples did you test for C.
each month in 2020?	difficile each month in 2020?