## Undetermined cause of Serratia marcescens infections -Multiple States, 2018

Record ID

(NOTE: This is autogenerated by REDCap and does not need to be completed on paper forms.)

Form Approved OMB Control No. 0920-XXXX Exp. date: XX/XX/XXXX

For information on locating lot/catalog numbers for BD products, please click the PDF below. (If using PDF chart abstraction form, flip to last page.)

[Attachment: "lotnumbers.pdf"]

CDC epi ID	(CDC will complete)
CDC lab ID number	(CDC will complete)
State epi ID	(Please ensure this ID matches any previously communicated information on this patient.)
State lab ID number	(Please ensure this ID matches any previously communicated information on this patient.)
Data chart abstraction completed	
Case type	<ul> <li>Confirmed</li> <li>Probable</li> </ul>
Specimen date	(Date the (+) culture was drawn. If multiple (+) cultures, include only the first one that matches an outbreak strain by PFGE.)
Specimen type	<ul> <li>Blood</li> <li>Urine</li> <li>Sputum</li> <li>Stool</li> <li>Tracheal aspirate</li> <li>Other (specify)</li> <li>(If more than one specimen type, check the one(s) corresponding to the PFGE results below.)</li> </ul>
Specify other specimen type	
Result	(Pathogen identified - may list more than one pathogen. If multiple specimen types reported above, please specify which types were (+) for which pathogen(s).)



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PFGE

State

#### (PFGE pattern designated by the lab)

 $\bigcirc$  AL O AK  $\bigcirc$  AZ  $\bigcirc$  AR  $\bigcirc$  CA  $\bigcirc$  CO  $\bigcirc$  CT ⊖ DE  $\bigcirc$  DC Õ FL Ŏ GA  $\bigcirc$  HI  $\bigcirc$  ID  $\bigcirc$  IL  $\bigcirc$  IN  $\bigcirc$  IA  $\bigcirc$  KS  $\bigcirc$  KY  $\bigcirc$  LA  $\bigcirc$  ME  $\bigcirc$  MD  $\bigcirc$  MA  $\bigcirc$  MI  $\bigcirc$  MN  $\bigcirc$  MS  $\bigcirc$  MO  $\bigcirc$  MT O NE Ó NV ◯ NH Ó OR O PA PR O PR O SD SD TN TX  $\bigcirc$  UT  $\bigcirc$  VT  $\bigcirc$  VA  $\bigcirc$  WA O WV  $\bigcirc$  WI **WY** 

Facility ID (primary facility where patient was receiving care prior to bacteremia diagnoses)

(Unique ID assigned by state (CDC does not collect facility names))



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Facility unit type

Facility location

Prior to the bacteremia diagnosis did the patient receive infusions or line care at an additional facility?

Facility ID number of second facility

Facility unit type

Specify othe	r facility	type or	outpatient	setting
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Age (years)

Sex

Primary diagnosis (non-Serratia)

Other diagnoses

Immunocompromised?

What was the patient's outcome?

CVC

CVC insertion/change date

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○ Acute care facility for pediatric patients

- O Acute care facility for adult patients
- O Acute care facility for both pediatric and adult patients
- Outpatient only (including home health, outpatient clinic, or infusion center)
- Other (specify)

((e.g., infusion center))

(Location in facility where patient located when culture drawn (e.g., ER, floor, NICU, PICU, etc.))

O Yes  $\bigcirc$  No

Acute care facility for pediatric patients

- Acute care facility for adult patients
- O Acute care facility for both pediatric and adult patients
- Outpatient only (including home health, outpatient clinic, or infusion center)
- Other (specify)

((e.g., infusion center))

(Patient age at date of positive culture)

🔿 Male ) Female

○ Other

(Patient's primary diagnosis prior to becoming infected with Serratia)

(Other medical/surgical diagnoses)

⊖ Yes  $\bigcirc$  No

(e.g. was the patient on chemotherapy or high dose steroids, was there a diagnosis of an immune disorder such as HIV/AIDS)

⊖ Died ○ Still hospitalized Discharged alive

⊖ Yes ⊖ No (Was a central venous catheter present within 2 days of (+) culture being drawn)

(Most recent line insertion/change prior to symptom onset/(+) culture, whichever was first)



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CVC type	e	<ul> <li>Tunneled central line</li> <li>Non-tunneled central line</li> <li>Implanted port</li> <li>PICC</li> <li>Midline</li> <li>Umbilical</li> <li>Other</li> <li>Unknown</li> </ul>
Specify o	other CVC type	
	ny other indwelling vascular access in al to the central line.	
POA/inpa	atient	<ul> <li>Present on admission</li> <li>Inpatient</li> <li>(Was the bacteremia present on admission or dic the patient develop this while an inpatient?)</li> </ul>

For information on locating lot/catalog numbers for BD products, please click the PDF below. (If using PDF chart abstraction form, flip to last page.)

[Attachment: "lotnumbers.pdf"]



# This section asks about specific BD SALINE products. If additional saline products were administered, please add them in the next section.

	Adminis tered to patient < 48 hours prior to (+) culture	Adminis tered to patient 48 hours - 7 days prior to (+) culture	Unable to determi ne if adminis tered to patient	Product adminis tered inside facility	Product adminis tered outside facility	Product availabl e on the patient unit prior to (+) culture	Product availabl e in the facility prior to (+) culture	Product adminis tered by hand	Product adminis tered by pump
(A) BD <sup>™</sup> Pre-Filled Normal Saline Syringe Volume 10mL; Diameter 10mL									
(B) BD <sup>™</sup> Pre-Filled Normal Saline Syringe Volume 5mL; Diameter 5mL									
(C) BD <sup>™</sup> Pre-Filled Normal Saline Syringe Volume: 3mL; Diameter 10mL									
(D) BD <sup>™</sup> Pre-Filled Normal Saline Syringe Volume: 5mL; Diameter 5mL									
(E) BD <sup>™</sup> Pre-Filled Normal Saline Syringe Volume: 3mL; Diameter 5mL									
(F) BD <sup>™</sup> Pre-Filled Normal Saline Syringe Volume: 3mL; Diameter 3mL									
(G) BD <sup>™</sup> Pre-Filled Normal Saline Syringe Volume: 2mL; Diameter 3mL									
(H) BD <sup>™</sup> Pre-Filled Normal Saline Syringe with Blunt Plastic Cannula Volume: 10mL; Diameter: 10mL									
<ul> <li>(I) BD<sup>™</sup> Pre-Filled Normal Saline Syringe with Blunt Plastic Cannula Volume: 5mL; Diameter: 10mL</li> </ul>									



fidential	Form Approved OMB Control No. 0920-X Exp. date: XX/XX/XXXX	XXX		I					Page 6 of	f 13
Šyringe w Cannula	Pre-Filled Normal Saline vith Blunt Plastic 5mL; Diameter: 5mL									
Syringe w Cannula	Pre-Filled Normal Saline vith Blunt Plastic 3mL; Diameter: 3mL									
Catalog (	REF) number			cat e.g	alog nun .,Catalog	nber corr (REF) ກເ	esponds i umber, A	to which = 30650	pecify wł formulati 7, B = = 70621:	ion,
Lot number				lot	number	correspo	checked nds to wh = 921412	nich form	pecify wh ulation,	nich

## Were additional saline products administered within 7 days of the (+) culture? If so, enter the information below (for up to 3 additional saline products).

Saline flush name	(Name of saline flush product used on this patien to include manufacturer, sterile field or non-sterile field)				
When was this product used?	$\square$ < 48 hours prior to (+) culture $\square$ 48 hours - 7 days prior to (+) culture				
Was this product administered inside the facility or outside the facility?	<ul> <li>Inside facility</li> <li>Outside facility</li> <li>Both</li> </ul>				
Was this product administered by hand or using a pump?	<ul> <li>By hand</li> <li>Pump</li> <li>Other (specify)</li> </ul>				
Specify how saline product was administered.					
Saline flush concentration	(e.g., 0.9%)				
Saline syringe size	(e.g., 10ml)				
Saline volume in the syringe	(e.g., 5ml (this would be the total volume of liquid product in syringe))				
Provide catalog (REF) number:					
Saline flush lot #	(Lot # if known)				

Public reporting burden of this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, andcompleting and reviewing the collection of information. An agency may not conduct or sponsor, and a person is notrequired 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-XXXX

www.projectredcap.org



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this patie the 48 ho the facilit onset, or	s lot # correspond what was administered to ent, available on the patient unit within ours prior to symptom onset, available in ty within the 48 hours prior to symptom currently in stock at the time of public vestigation?	<ul> <li>Administered to patient</li> <li>Available on the patient unit within the 48 hour prior to symptom onset</li> <li>Available in the facility within 48 hours prior to symptom onset</li> <li>Currently in stock at the time of public health investigation</li> <li>(Please check the most specific option (i.e., if used on this specific patient and used on the unit, check "used on this patient."))</li> </ul>						
Saline flu	ish name 2	(Name of saline flush product used on this patient to include manufacturer, sterile field or						
When wa	is this product used?	non-sterile field) $\Box$ < 48 hours prior to (+) culture $\Box$ 48 hours - 7 days prior to (+) culture						
	product administered inside the facility or he facility?	<ul> <li>Inside facility</li> <li>Outside facility</li> <li>Both</li> </ul>						
Was this pump?	product administered by hand or using a	<ul> <li>By hand</li> <li>Pump</li> <li>Other (specify)</li> </ul>						
Specify h	ow saline was administered.							
Saline flu	ish concentration 2	(e.g., 0.9%)						
Saline sy	ringe size 2	(e.g., 10ml)						
Saline vo	lume in the syringe 2	(e.g., 5ml (this would be the total volume of liquid product in syringe))						
Provide c	atalog (REF) number:							
Saline flu	ish lot # 2	(Lot # if known)						
to this pa within the available to sympt	s lot # correspond to what was administered atient, available on the patient unit e 48 hours prior to symptom onset, in the facility within the 48 hours prior om onset, or currently in stock at the time health investigation?	<ul> <li>Administered to patient</li> <li>Available on the patient unit within the 48 hours prior to symptom onset</li> <li>Available in the facility within 48 hours prior to symptom onset</li> <li>Currently in stock at the time of public health investigation</li> <li>(Please check the most specific option (i.e., if used on this specific patient and used on the unit, check "used on this patient."))</li> </ul>						



Saline flush name 3

Saline flush name 3	(Name of saline flush product used on this patient to include manufacturer, sterile field or non-sterile field)
When was this product used?	$\Box$ < 48 hours prior to (+) culture $\Box$ 48 hours - 7 days prior to (+) culture
Was this product administered inside the facility or outside the facility?	<ul> <li>Inside facility</li> <li>Outside facility</li> <li>Both</li> </ul>
Was this product administered by hand or using a pump?	<ul> <li>By hand</li> <li>Pump</li> <li>Other (specify)</li> </ul>
Specify how saline was administered.	
Saline flush concentration 3	(e.g., 0.9%)
Saline syringe size 3	(e.g., 10ml)
Saline volume in the syringe 3	(e.g., 5ml (this would be the total volume of liquid product in syringe))
Provide catalog (REF) number:	
Saline flush lot # 3	(Lot # if known)
Does this lot # correspond to what was administered to this patient, available on the patient unit within the 48 hours prior to symptom onset, available in the facility within the 48 hours prior to symptom onset, or currently in stock at the time of public health investigation?	<ul> <li>Administered to patient</li> <li>Available on the patient unit within the 48 hours prior to symptom onset</li> <li>Available in the facility within 48 hours prior to symptom onset</li> <li>Currently in stock at the time of public health investigation</li> </ul>

(Please check the most specific option (i.e., if used on this specific patient and used on the unit, check "used on this patient."))

For information on locating lot/catalog numbers for BD products, please click the PDF below. (If using PDF chart abstraction form, flip to last page.)

[Attachment: "lotnumbers.pdf"]



## This section asks about specific BD HEPARIN products. If additional heparin products were administered, please add them in the next section.

	Adminis tered to patient < 48 hours prior to (+) culture	Adminis tered to patient 48 hours - 7 days prior to (+) culture	Unable to determi ne if adminis tered to patient	Product adminis tered inside facility	Product adminis tered outside facility	availabl	Product availabl e in the facility prior to (+) culture	Product currentl y in stock at time of public health investig ation	adminis tered	Product adminis tered by pump
(A) BD PosiFlush™ Heparin Lock Flush Syringe 10units/mL Volume: 6mL; Diameter: 10mL										
(B) BD PosiFlush™ Heparin Lock Flush Syringe 10units/mL Volume: 5mL; Diameter: 10mL										
(C) BD PosiFlush™ Heparin Lock Flush Syringe 10units/mL Volume: 3mL; Diameter: 10mL										
(D) BD PosiFlush <sup>™</sup> Heparin Lock Flush Syringe 10units/mL Volume: 5mL; Diameter: 5mL										
(E) BD PosiFlush™ Heparin Lock Flush Syringe 10units/mL Volume: 3mL; Diameter: 3mL										
(F) BD PosiFlush™ Heparin Lock Flush Syringe with Blunt Plastic Cannula 10 units/mL										
(G) BD PosiFlush™ Heparin Lock Flush Syringe 100 units/mL Volume: 5mL; Diameter: 10mL										
(H) BD PosiFlush™ Heparin Lock Flush Syringe 100 units/mL Volume: 3mL; Diameter: 10mL										



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Flush Syr	siFlush™ Heparin Lock inge 100 units/mL 5mL; Diameter: 5mL								
Flush Syr	siFlush™ Heparin Lock inge 100 units/mL 3mL; Diameter: 5mL								
Flush Syr	siFlush™ Heparin Lock inge 100 units/mL 3mL; Diameter: 3mL								
Flush Syr	siFlush™ Heparin Lock inge 100 units/mL 2mL; Diameter: 3mL								
Flush Syr	osiFlush™ Heparin Lock inge with Blunt Plastic 100 units/mL								
Catalog (	REF) number		cat e.g	alog num ., Catalog	ber corre g (REF) n	esponds I umber, A	to which = 30650	pecify wł formulati 07, B = = 706213	on,
Lot numb	er		lot	multiple p number o ., A = 76	correspor	nds to wh	ich form	pecify wh ulation,	nich

### Were additional heparin products administered within 7 days of (+) culture? If so, enter the information below (for up to 3 additional heparin products).

Heparin flush name	(name and of the heparin product to include manufacturer, sterile field or not, etc.)
When was this product used?	$\square$ < 48 hours prior to (+) culture $\square$ 48 hours - 7 days prior to (+) culture
Was this product administered inside the facility or outside the facility?	<ul> <li>Inside facility</li> <li>Outside facility</li> <li>Both</li> </ul>
Was this product administered by hand or using a pump?	<ul> <li>By hand</li> <li>Pump</li> <li>Other (specify)</li> </ul>
Specify how heparin was administered.	
Heparin concentration	(typically given in units/ml such as 10u/ml or 100u/ml)
Public reporting burden of this collection of information is estimated to	o average 2 hours 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 notrequired 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-XXXX 04/24/2018 9:48am



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Heparin syringe size	(e.g., 10ml)
Heparin volume in syringe	(total volume of liquid product in the syringe in ml)
Provide catalog (REF) number:	
Heparin flush lot #	(Lot # if known)
Does this lot # correspond to what was adm to this patient, available on the patient unit within the 48 hours prior to symptom onset, available in the facility within the 48 hours p to symptom onset, or currently in stock at th of public health investigation?	<ul> <li>Available on the patient unit within the 48 hours prior to symptom onset</li> <li>rior</li> <li>Available in the facility within 48 hours prior to</li> </ul>
Heparin flush name 2	(name and of the heparin product to include manufacturer, sterile field or not, etc.)
When was this product used?	$\square$ < 48 hours prior to (+) culture $\square$ 48 hours - 7 days prior to (+) culture
Was this product administered inside the fac outside the facility?	ility or O Inside facility O Utside facility Both
Was this product administered by hand or us pump?	sing a O By hand O Pump O Other (specify)
Specify how heparin was administered.	
Heparin concentration 2	(typically given in units/ml such as 10u/ml or 100u/ml)
Heparin syringe size 2	(e.g., 10ml)
Heparin volume in syringe 2	(total volume of liquid product in the syringe in ml)
Provide catalog (REF) number:	

Heparin flush lot # 2

(Lot # if known)



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to this pa within the available to sympt	lot # correspond to what was administered tient, available on the patient unit 48 hours prior to symptom onset, in the facility within the 48 hours prior om onset, or currently in stock at the time health investigation?	<ul> <li>Administered to patient</li> <li>Available on the patient unit within the 48 hours prior to symptom onset</li> <li>Available in the facility within 48 hours prior to symptom onset</li> <li>Currently in stock at the time of public health investigation</li> <li>(Please check the most specific option (i.e., if used on this specific patient and used on the unit, check "used on this patient."))</li> </ul>	
Heparin f	flush name 3		
- 1 -		(name and of the heparin product to include manufacturer, sterile field or not, etc.)	
When wa	as this product used?	$\square$ < 48 hours prior to (+) culture $\square$ 48 hours - 7 days prior to (+) culture	
	product administered inside the facility or he facility?	<ul> <li>Inside facility</li> <li>Outside facility</li> <li>Both</li> </ul>	
Was this pump?	product administered by hand or using a	<ul> <li>By hand</li> <li>Pump</li> <li>Other (specify)</li> </ul>	
Specify h	low heparin was administered.		
Heparin o	concentration 3	(typically given in units/ml such as 10u/ml or 100u/ml)	
Heparin s	syringe size 3	(e.g., 10ml)	
Heparin v	volume in syringe 3	(total volume of liquid product in the syringe in ml)	
Provide c	atalog (REF) number:		
Heparin f	flush lot # 3	(Lot # if known)	
to this pa within the available to sympt	s lot # correspond to what was administered atient, available on the patient unit e 48 hours prior to symptom onset, in the facility within the 48 hours prior om onset, or currently in stock at the time health investigation?	<ul> <li>Administered to patient</li> <li>Available on the patient unit within the 48 hours prior to symptom onset</li> <li>Available in the facility within 48 hours prior to symptom onset</li> <li>Currently in stock at the time of public health investigation</li> <li>(Please check the most specific option (i.e., if used on this specific patient and used on the unit, check "used on this patient."))</li> </ul>	
	ss of the answers to the above questions, did ent receive any compounded medications	○ Yes ○ No	

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prepared with a BD heparin or saline flush?

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If yes to the above, specify what the patient received.

(Include as much information as possible, e.g. lot number, catalog number, volume, diameter, etc.)

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If yes to the above, what was the date(s) of administration?

#### Additional exposure questions

Other line products used

(Within the 7 days prior to symptom onset, eg. Chlorhexadine, antibiotics, alcohol scrub, line caps, dressing change kit; please be as specific as possible to include manufacturers, description, lot #, etc.)

Location where line products used

(e.g., acute care facility type, outpatient location, etc.)

List the steps, in order, for the normal line flush and heplock procedures.

Other common non-line product exposures and locations

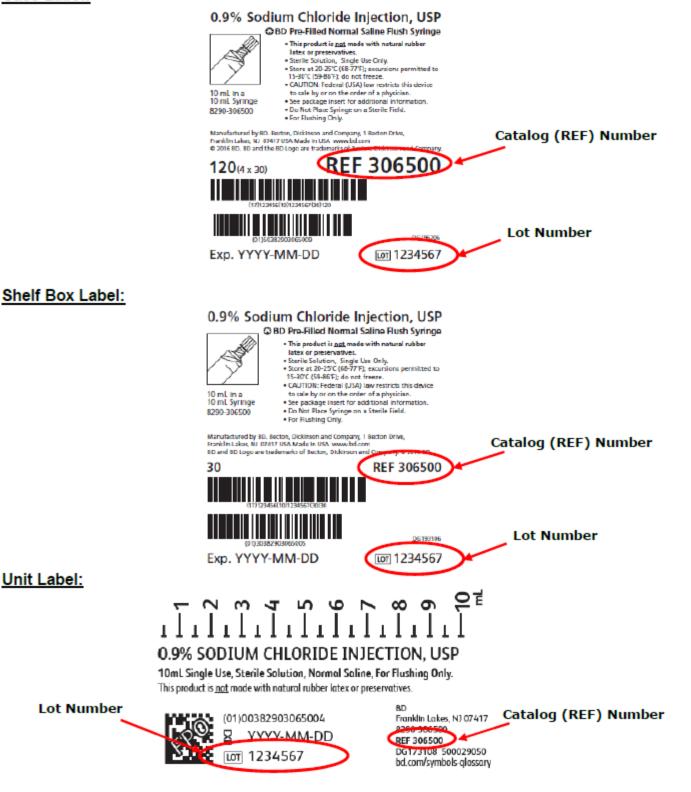
(Free text notes on whatever other common exposure might exist among cases - please note which other cases have the exposure listed. Please include exposures from home health care, outpatient healthcare visits, dialysis, etc. and provide as much detail as possible (but do not include actual names of facilities/agencies).)

Any additional concerning exposures that are outside the 7 day window?

### Medical Device Recall Catalog (Ref) and Lot Numbers Identification Sample:

### Example for Saline:

#### Case Label:



Unit Label: