

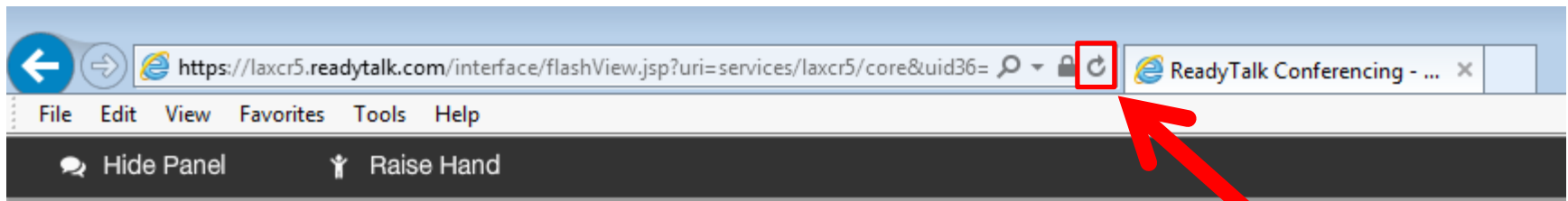
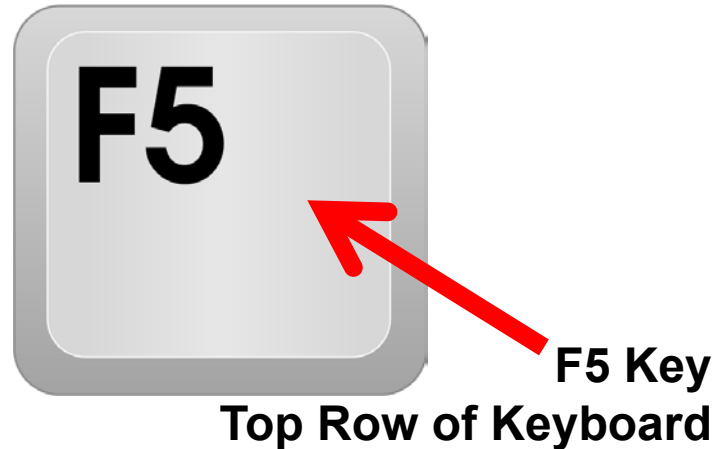
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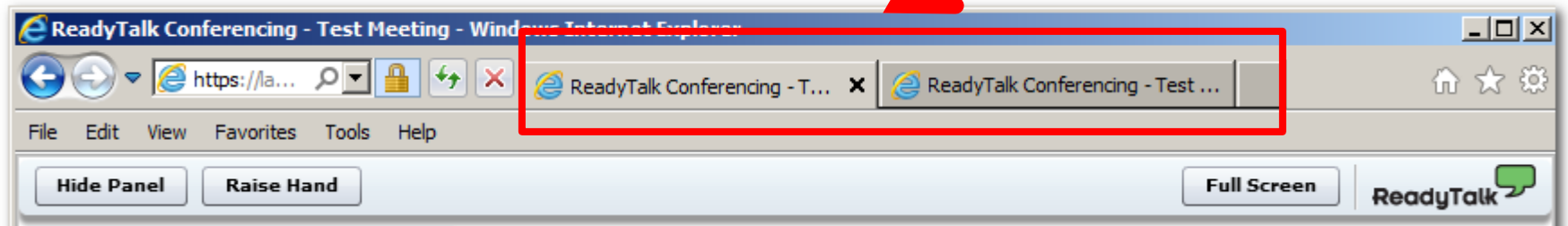


Location of Buttons

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Troubleshooting Echo

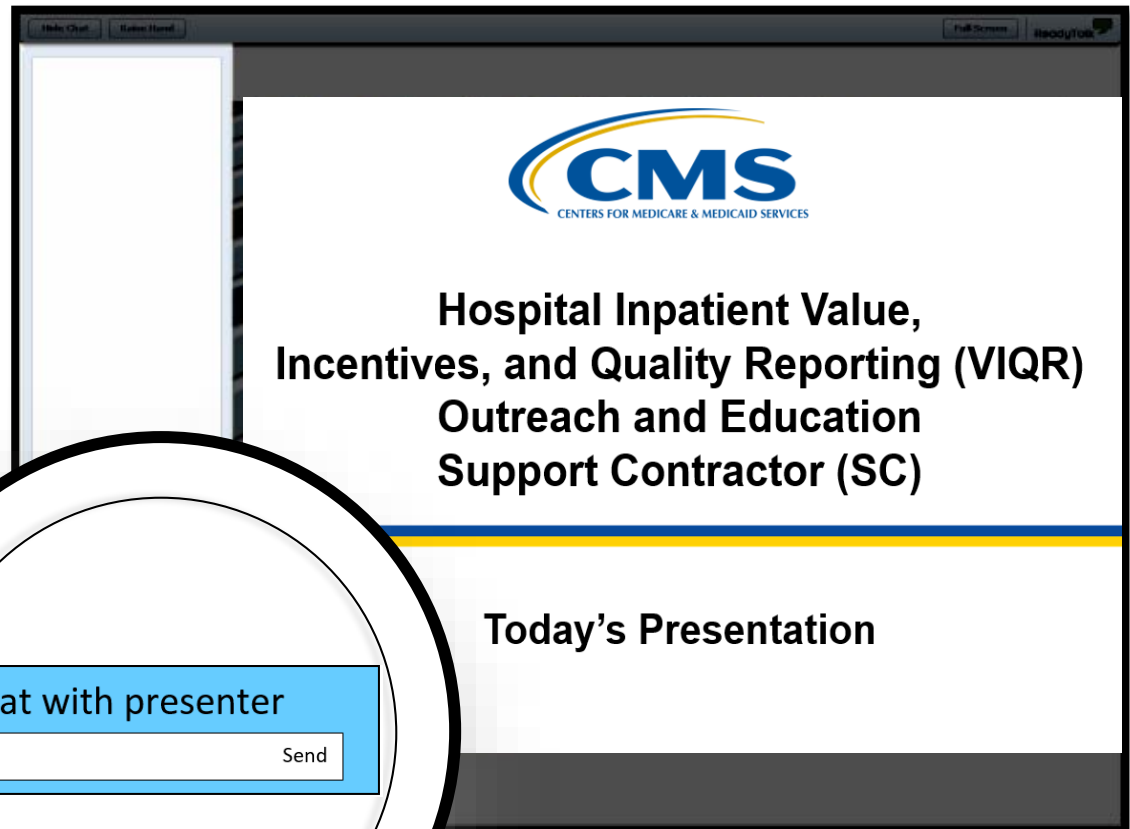
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SEP-1 Early Management Bundle, Severe Sepsis/Septic Shock: v5.5a Measure Updates and v5.0b Through v5.2b Analysis Results

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December 11, 2018

Objectives

At the end of the presentation, participants will be able to understand and interpret the guidance in version 5.5a of the specifications manual to ensure successful reporting for the SEP-1 measure.

Acronyms and Abbreviations

AKI	acute kidney injury	HD	hemodialysis	OR	operating room
AMA	against medical advice	hr	hour	PA	physician assistant
APN	advanced practice nurse	HSAG	Health Services Advisor Group	PICC	peripherally inserted central catheter
aPTT	activated partial thromboplastin time	IBW	ideal body weight	PO	by mouth
BID	twice a day	ICU	intensive care unit	Q	quarter
BiPAP	bilevel positive airway pressure	IM	intramuscular	RN	registered nurse
BMI	body mass index	INR	international normalized ratio	R/O	rule out
BP	Blood pressure	IO	intraosseous	R/T	related to
CKD	chronic kidney disease	IV	intravenous	RVR	rapid ventricular response
COPD	chronic obstructive pulmonary disease	kg	kilogram	SBP	systolic blood pressure
Cr	creatinine	L	liter	SEP	sepsis
CXR	chest x-ray	MAP	mean arterial pressure	SI	shock index
CY	calendar year	MAR	medication administration record	SIRS	systemic inflammatory response syndrome
DKA	Diabetic ketoacidosis	mL	milliliter	URI	upper respiratory infection
ED	emergency department	MD	medical doctor	UTI	urinary tract infection
EHR	electronic health record	mm/Hg	millimeters of Mercury	v	version
ESRD	end stage renal disease	mmol	millimole	VAD	ventricular assist device
g	gram	NC	nasal cannula	WBC	white blood count
GI	gastrointestinal	NS	normal saline		
H&P	history and physical	NSAID	non-steroidal anti-inflammatory drug		

Agenda

- **Numerator statement changes**
- **Algorithm updates**
- **Data element changes:**
 - *Administrative Contraindication to Care*
 - *Blood Culture Collection Acceptable Delay*
 - *Crystalloid Fluid Administration*
 - *Documentation of Septic Shock*
 - *Initial & Persistent Hypotension*
 - *Initial Lactate Level Collection*
 - *Repeat Volume Status and Tissue Perfusion*
 - *Septic Shock Present*
 - *Severe Sepsis Present*
- **v5.0b through v5.2b analysis results**



SEP-1 Early Management Bundle, Severe Sepsis/Septic Shock:
v5.5a Measure Updates

Presented by: Noel Albritton and Dino Omerhodzic

Numerator Statement v5.5a

Numerator Statement: Patients who received ALL of the following:

Within three hours of presentation of severe sepsis:

- Initial lactate level measurement
- Broad spectrum or other antibiotics administered
- Blood cultures drawn prior to antibiotics

AND received within six hours of presentation of severe sepsis. **ONLY if the initial lactate is elevated:**

- Repeat lactate level measurement

AND **w**ithin three hours of initial hypotension:

- Resuscitation with 30 mL/kg crystalloid fluids

OR **w**ithin three hours of septic shock:

- Resuscitation with 30 mL/kg crystalloid fluids

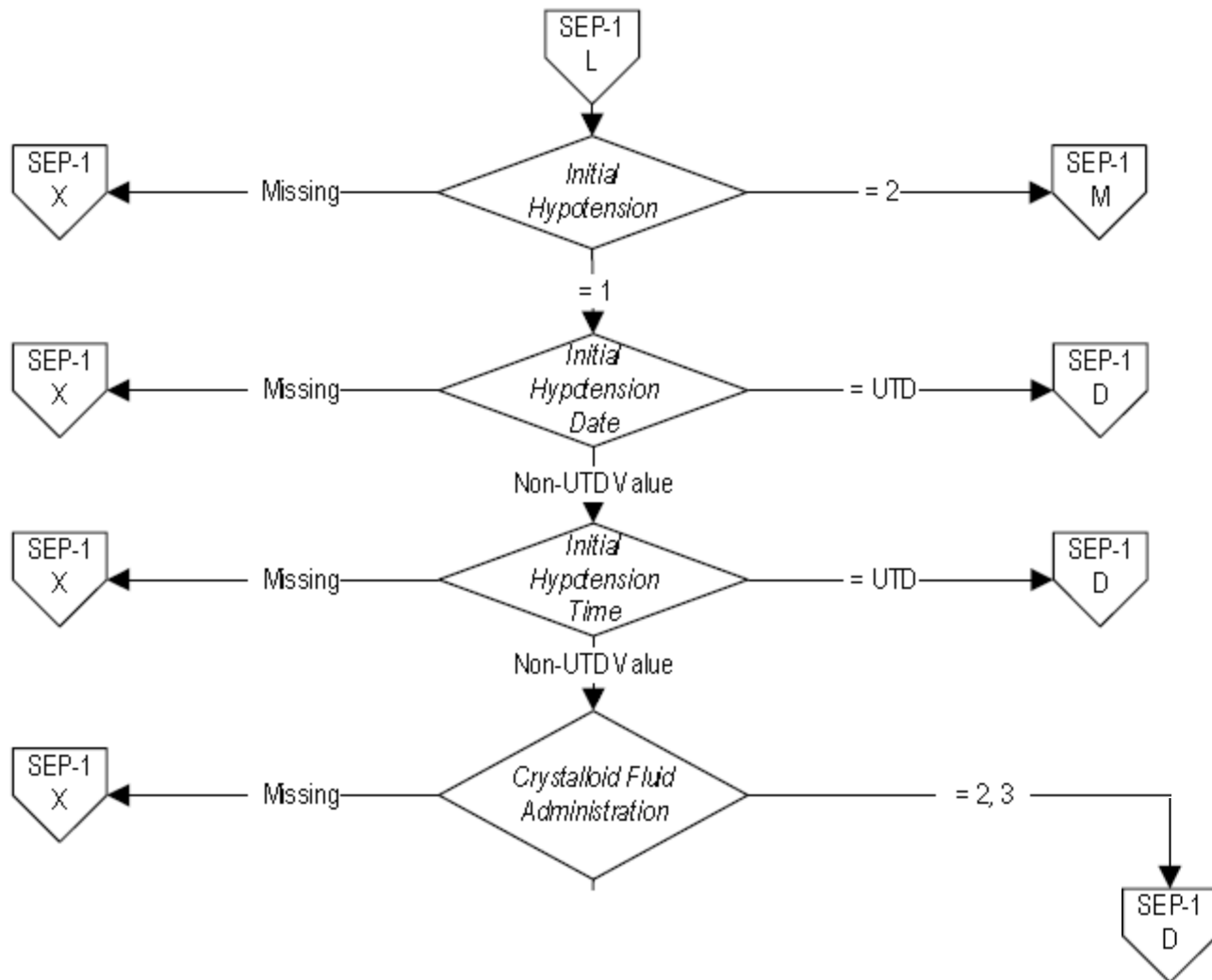
AND **w**ithin six hours of septic shock presentation, **ONLY if** hypotension persists after fluid administration:

- Vasopressors **are administered**

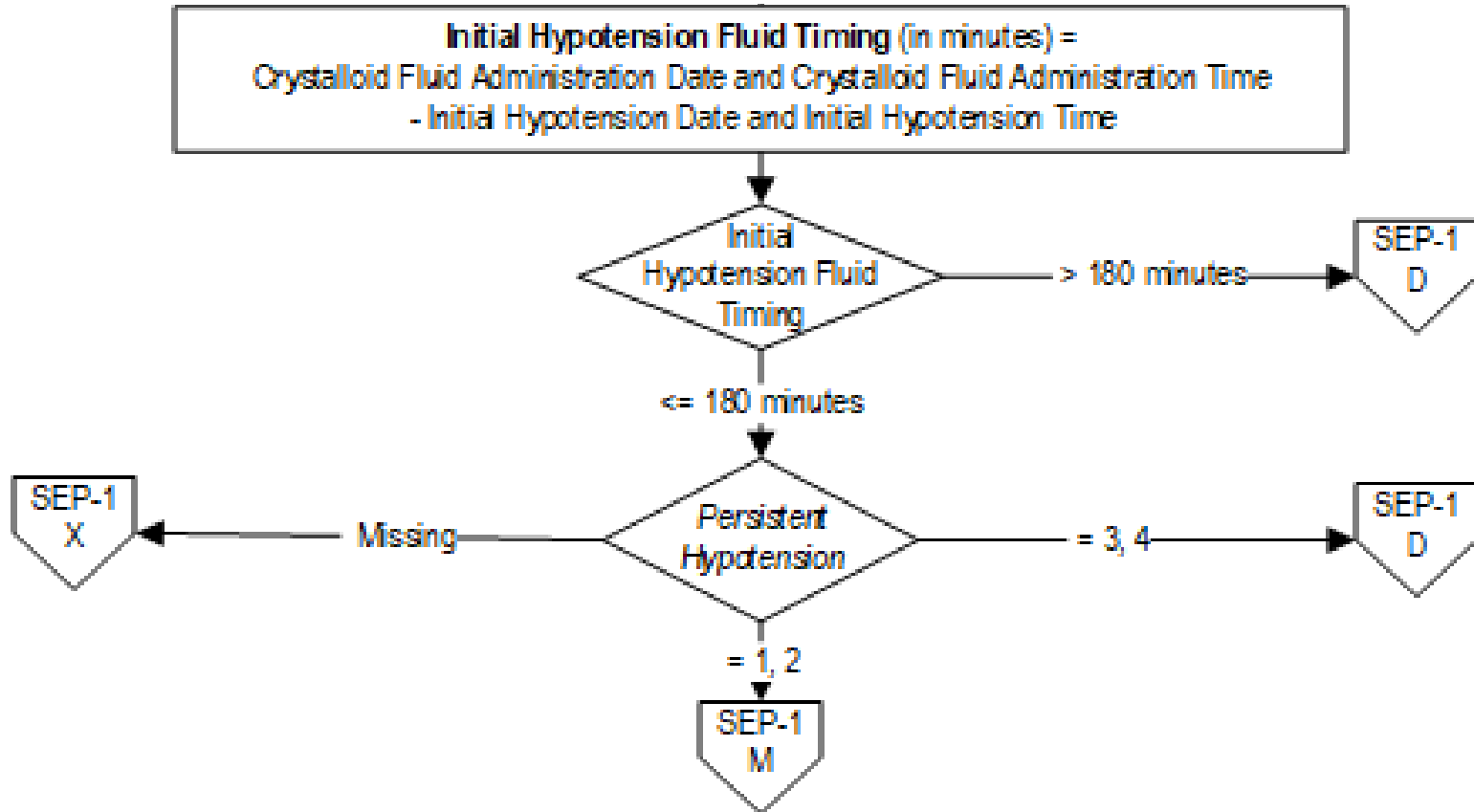
AND **w**ithin six hours of septic shock presentation, **if** hypotension persists after fluid administration or initial lactate ≥ 4 mmol/L:

- Repeat volume status and tissue perfusion assessment **is performed**

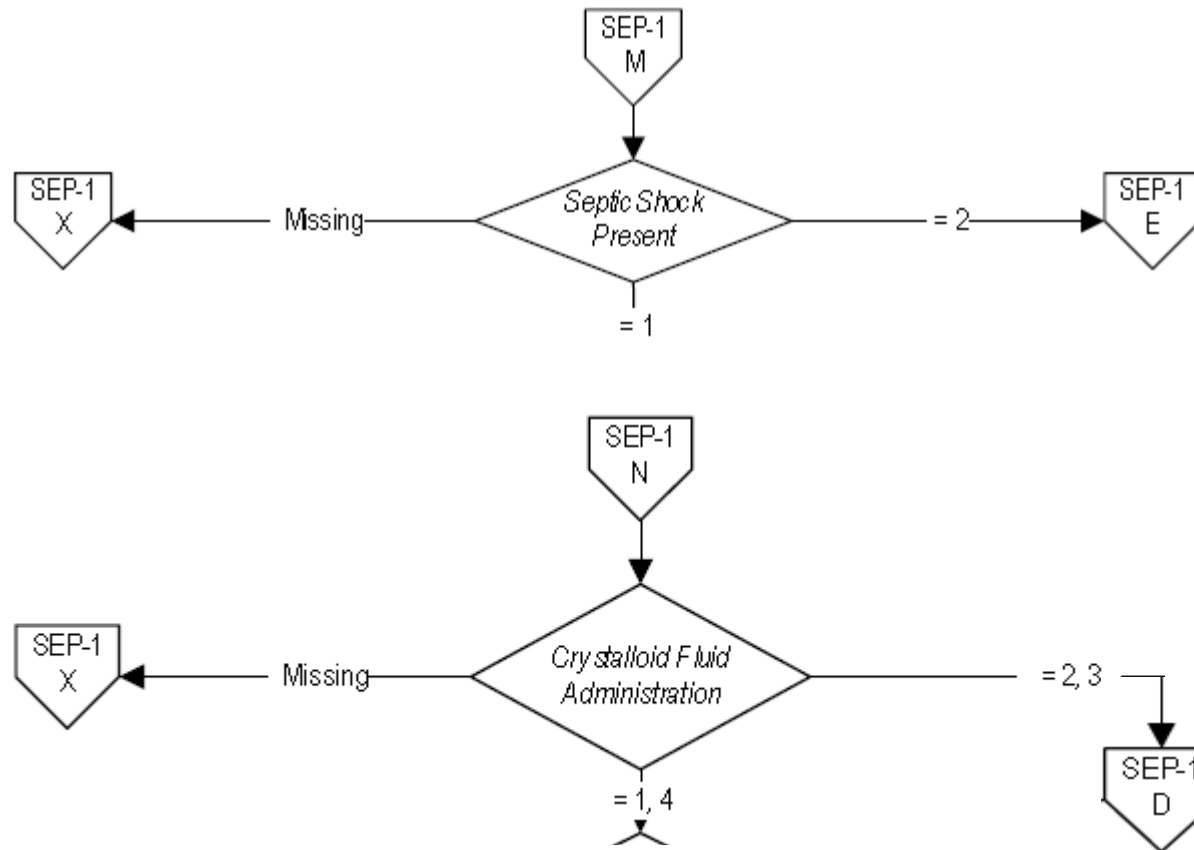
Algorithm Updates v5.5a



Algorithm v5.5a



Algorithm Updates v5.5a



Administrative Contraindication to Care Septic Shock & Severe Sepsis v5.5a

- An authorized patient advocate is someone (defined by facility policy) who is authorized to make decisions on behalf of the patient when the patient is not able to.

Administrative Contraindication to Care Septic Shock & Severe Sepsis v5.5a

- If there is a signed AMA form or documentation by a physician/APN/PA or nurse indicating the patient left AMA prior to or within 6-hours following presentation of septic shock, select Value "1."
 - Explicit "left against medical advice" documentation is not required.
Example:
"Patient is refusing to stay for continued care," select Value "1."
 - Documentation suggesting that the patient left before discharge instructions could be given does not count as leaving against medical advice.
 - An AMA form signed by the patient is not required for the purposes of this data element.
 - Do not consider AMA documentation and other disposition documentation as "contradictory." If any source states the patient left against medical advice, select Value "1," regardless of whether the AMA documentation was written last.
Example:
AMA form signed and discharge instruction sheet states "Discharged home with belongings," select Value "1."

Blood Culture Collection Acceptable Delay v5.5a

Exclusion Guidelines for Abstraction:

Oral (PO) Antibiotics

Notes for Abstraction:

- **Only** the following situations demonstrate an acceptable delay **where** the blood culture **was** drawn after the *Broad Spectrum or Other Antibiotic Administration Date and Time*. If there is an acceptable delay, choose Value “1.”

Blood Culture Collection Acceptable Delay v5.5a

- Surgical patients who receive a pre-op or post-op prophylactic antibiotic within 24 hours before severe sepsis was identified and had a blood culture drawn after the prophylactic antibiotic was started.
- Antibiotics were started in the hospital for an infection within 24 hours before severe sepsis was identified, and a blood culture was drawn sometime after the antibiotic dose was started.

Blood Culture Collection Acceptable Delay v5.5a

- Antibiotics were started prior to hospital arrival within 24 hours before severe sepsis was identified, and a blood culture was drawn after the pre-hospital antibiotics were started.
- A physician/APN/PA documented reason for the delay, which makes it clear that waiting to start the antibiotic would be detrimental to the patient.

Examples:

- ED Physician Note: Patient condition worsening, IV Vanco ordered stat, blood and urine cultures ordered, awaiting CXR.
- Hospitalist Progress Note: Patient's deteriorating condition concern for rapidly advancing infection, starting IV antibiotics now, lab on way to collect blood cultures.

Crystalloid Fluid Administration v5.5a

Definition: Documentation of initiation of crystalloid fluids within the specified time frame AND complete infusion of the target ordered volume.

Suggested Data Collection Question: Were crystalloid fluids initiated within the specified time frame AND completely infused based on the target ordered volume?

Crystalloid Fluid Administration v5.5a

Allowable Values:

- 1 (Yes) Target volume of crystalloid fluids were ordered AND initiated within the specified time frame. Additionally, the target ordered volume was completely infused.
- 2 (No) Less than the target volume of crystalloid fluids were ordered OR initiated within the specified time frame. The target ordered volume was not completely infused.
- 3 (No) The target volume of crystalloid fluids was NOT initiated within the specified time frame.
- 4 (No) There is documentation the patient has an implanted Ventricular Assist Device (VAD) OR documentation of the patient or authorized patient advocate refusal of IV fluids.

Crystalloid Fluid Administration v5.5a

- The specified time frame for abstraction of crystalloid fluids is within 6-hours prior through 3-hours after either of the following trigger events. If both are present the specified time frame is determined by the earliest trigger.
 - Initial Hypotension Date and Time
 - Septic Shock Presentation Date and Time

Example:

- Initial Hypotension Date & Time: 01/05/18 0730
- Septic Shock Presentation Date & Time: 01/05/18 0645
- Crystalloid Fluid Administration time frame: 6-hours (0045) before 0645 through 3-hours (0945) after 0645.

Crystalloid Fluid Administration v5.5a

- The target ordered volume must be ordered and initiated within the specified time frame if Initial Hypotension or Septic Shock is present. Additionally, in order to choose Value “1,” the target ordered volume must be documented as completely infused. The target ordered volume is NOT required to be completely infused within the specified time frame. If the target ordered volume is not completely infused, choose Value “2.”

Crystalloid Fluid Administration v5.5a

- To calculate the appropriate target ordered volume use the actual or estimated weight in the following priority order.
 1. Weight documented in the crystalloid fluid order
 2. Weight documented closest and prior to the order for crystalloid fluids
 3. Weight documented closest and after the order for crystalloid fluids

Crystalloid Fluid Administration v5.5a

- Physician/APN/PA can use Ideal Body Weight (IBW) to determine the target ordered volume if all of the following conditions are met:
 - Physician/APN/PA documents the patient is obese (defined BMI >30).
 - Physician/APN/PA documents IBW is used to determine target ordered volume.
 - IBW must be present in the medical record, abstractors should not calculate the IBW.
- Other acceptable weight terms include predicted weight, dosing weight, and adjusted body weight.

Crystalloid Fluid Administration v5.5a

- If a rate or duration to infuse fluids contained within the order is different from the rate or duration the fluids were actually administered, use the rate or duration the fluids were actually administered over.

Example:

- Fluid Order: 0.9% NS 1000 mL bolus at 150 mL/hr
- Nurse documents a start time of 1500 and end time of 1800 for the 1000 mL bolus
- Use the start and stop time documented by nursing that reflects the duration over which the fluids were actually administered.

Crystalloid Fluid

Administration Date & Time v5.5a

Definition: The earliest time at which crystalloid fluids were initiated within the specified time frame.

Suggested Data Collection Question: What was the earliest time at which crystalloid fluids were initiated within the specified time frame?

Notes for Abstraction:

- The specified time frame for abstraction of crystalloid fluids is within 6-hours prior through 3-hours after either of the following trigger events. If both are present the specified time frame is determined by the earliest trigger.
 - *Initial Hypotension Date and Time*
 - *Septic Shock Presentation Date and Time*

Documentation of Septic Shock v5.5a

Data Element: Documentation of Septic Shock removed.

Initial Hypotension v5.5a

Definition: Documentation of the presence of initial hypotension **within the specified time frame** and prior to the completion of the target ordered volume (30 mL/kg or up to 10% less than 30 mL/kg) of crystalloid fluids.

Suggested Data Collection Question: Was initial hypotension present **within the specified time frame**?

Initial Hypotension v5.5a

Allowable Values:

- 1 (Yes) Initial Hypotension was present within the specified time frame.
- 2 (No) Initial Hypotension was not present within the specified time frame or unable to determine from medical record documentation.

Initial Hypotension v5.5a

- The specified time frame for assessing Initial Hypotension is 6-hours prior to or within 6-hours following *Severe Sepsis Presentation Date and Time*.
- The criteria for determining that Initial Hypotension was present are as follows:
 - Two hypotensive blood pressure readings from measurements taken at different times within the specified time frame. The hypotensive blood pressure readings do not need to be consecutive but need to be within 3-hours of each other. Acceptable readings are:
 - Systolic blood pressures <90, or
 - Mean arterial pressures (MAP) <65 or
 - A decrease in systolic blood pressure by >40 mm/Hg

Initial Hypotension & Persistent Hypotension v5.5a

- Use the time the hypotensive blood pressures were taken or obtained. If time taken or obtained is not available, use recorded or documented time. Do not abstract hypotensive values from narrative charting unless there is no other documentation that reflects the time that the same hypotensive values were obtained.

Initial Hypotension & Persistent Hypotension v5.5a

- For the following, physician/APN/PA documentation prior to or within 24 hours after *Severe Sepsis Presentation Time* **is required.**
 - If hypotension (SBP <90 mmHg or MAP <65 mmHg) is due to the following, it **should not be used.** Inferences should not be made. **The abnormal value or reference to the abnormal value must be in the same documentation.**
 - Normal for that patient
 - Is due to a chronic condition
 - Is due to a medication

Initial Hypotension & Persistent Hypotension v5.5a

- If a hypotensive value is due to an acute condition that has a non-infectious source/process, it **should not be used** (Refer to *Severe Sepsis Present* criteria “a” to determine if the source of the acute condition is an infection).

Example:

“BP 85/50 r/t blood loss” “2 liters lost via GI bleed” (blood loss is the acute condition and GI bleed is the non-infectious source).

Initial Hypotension & Persistent Hypotension v5.5a

- If a hypotensive value should not be used based on the above guidance, all instances of less severe values should not be used.

Example:

“BP 80/50 secondary to Lasix” (systolic blood pressures ≥ 80 would not be used).

Initial Hypotension & Persistent Hypotension v5.5a

- If a hypotensive value is due to the following, the criteria value **should be used.**
 - Acute condition
 - Example:**
Progress Note: “Hypotension r/t dehydration.”
 - Acute on chronic condition
 - Example:**
H&P: “Hypotension due to acute exacerbation of chronic heart failure.”
 - Infection
 - Example:**
Physician Note: “Sepsis, hypotensive.”

Initial Hypotension & Persistent Hypotension v5.5a

- Documentation of a term that represents or is defined by an SBP <90 mmHg or MAP <65 mmHg is acceptable in place of an abnormal value.

Example:

Hypotension (Systolic blood pressure <90 mmHg).

Initial Hypotension & Persistent Hypotension v5.5a

- If within the same physician/APN/PA documentation, there is conflicting documentation indicating hypotension is normal for the patient, or due to a chronic condition or medication AND due to or possibly due to an infection, Severe Sepsis, or Septic Shock, the criteria value should be used.

Example:

“Hypotensive post medications, possibly r/t sepsis.”

Initial Hypotension & Persistent Hypotension v5.5a

- If within 24 hours after *Severe Sepsis Presentation Time* there is conflicting information within **two or more separate** pieces of physician/APN/PA documentation indicating hypotension is normal for the patient, or due to a chronic condition or medication AND due to or possibly due to an infection, Severe Sepsis, or Septic Shock, abstract based on the latest piece of documentation within the 24-hour period.

Example:

Note 1200: “Antihypertensive discontinued due to hypotension.”

Note 1600: “Sepsis with hypotension and SIRS criteria. Hypotensive readings should be used.

Initial Lactate Level Collection v5.5a

Definition: Documentation of collection of an initial lactate level **within the specified time frame.**

Suggested Data Collection Question: Was an initial lactate level drawn **within the specified time frame?**

Allowable Values:

- 1 (Yes) An initial lactate level was drawn **within the specified time frame.**
- 2 (No) An initial lactate level was not drawn **within the specified time frame,** or unable to determine.

Initial Lactate Level Collection v5.5a

- The specified time frame within which an initial lactate must be drawn is within 6-hours prior through 3-hours following severe sepsis presentation.
 - If multiple lactate levels are drawn within the specified time frame, use the lactate drawn PRIOR to the *Severe Sepsis Presentation Time* with the HIGHEST level.
 - If multiple lactate levels are drawn ONLY in the 3-hours after the *Severe Sepsis Presentation Time*, use the lactate drawn with the HIGHEST level within this time frame.

Initial Lactate Level Collection, Date, & Time v5.5a

- If there is more than one time of documentation for the *Initial Lactate Level Collection*, use the following order to determine which time to abstract.
 1. Laboratory documentation indicating date and time lactate was drawn.
 2. Date and Time the lactate is documented as drawn in a non-narrative location (e.g., sepsis flowsheet, checklist, screening).
 3. Narrative note indicating lactate is drawn with an associated date and time.

Repeat Volume Status and Tissue Perfusion Assessment Performed v5.5a

- Physician/APN/PA documentation indicating or attesting to performing or completing a physical examination, perfusion (re-perfusion) assessment, sepsis (severe sepsis or septic shock) focused exam, or systems review.

Examples of Physician/APN/PA documentation that is acceptable:

- “I have reassessed the patient’s hemodynamic status”

Repeat Volume Status and Tissue Perfusion Assessment Performed v5.5a

- Physician/APN/PA documentation indicating or attesting to performing or completing a review of at least five of the following **eight** parameters. Reference to the parameters must be made in physician/APN/PA documentation. Parameters do not need to all be contained within the same physician/APN/PA documentation.
 - **Shock Index (SI)**
 - **A shock index value is documented in the medical record, or there is physician/APN/PA documentation that they have reviewed the shock index.**

Septic Shock Present v5.5a

Allowable Values:

1 (Yes) Septic Shock is present.

2 (No) Septic Shock is not present, or unable to determine.

Severe Sepsis Present v5.5a

a. Documentation of an infection.

- Physician/APN/PA, nursing, or pharmacist documentation indicating a patient is being treated with an antibiotic for an infection and that antibiotic is documented as administered within 6-hours of criteria b or c is acceptable (e.g., Levaquin is documented in MAR for pneumonia and nursing documentation within 6-hours of criteria b and c **that indicates a dose was given**).
- If the note states an infection was present on admission, use the earliest documented date and time **that the patient arrives to the floor or unit for admission**.

Severe Sepsis Present v5.5a

Creatinine >2.0

- If there is physician/APN/PA documentation prior to or within 24 hours following presentation of severe sepsis that the patient has end stage renal disease (ESRD) and is on hemodialysis or peritoneal dialysis, all reported creatinine levels should be disregarded as signs of organ dysfunction. ESRD (on hemodialysis or peritoneal dialysis) and creatinine levels or reference to elevated creatinine levels do not need to be included in the same physician/APN/PA documentation.
- If there is physician/APN/PA documentation prior to or within 24 hours following presentation of severe sepsis of chronic renal disease (e.g., CKD I, II, or III, or “chronic renal insufficiency”) and the baseline creatinine is documented, creatinine values elevated >0.5 above baseline should be used as organ dysfunction (e.g., baseline 2.30, creatinine now 2.81).

Severe Sepsis Present v5.5a

- SIRS criteria or a sign of organ dysfunction obtained within the operating room (OR) should not be used.
- Disregard any documentation of SIRS criteria, organ dysfunction, an infection, Severe Sepsis, or Septic Shock in a discharge note, discharge summary, or documented after the time of discharge.

Severe Sepsis Present v5.5a

- To determine the laboratory test value time for severe sepsis criteria, use the following sources in priority order.
 - Primary source:
 1. Laboratory test value result time from lab
 - Supporting sources in priority order if primary source not available:
 1. Time within a narrative note that is directly associated with the laboratory test value
 2. Time the laboratory test value is documented in a non-narrative location (e.g., sepsis flowsheet)
 3. Laboratory test sample draw or collected time
 4. Physician/APN/PA or nursing narrative note open time

Severe Sepsis Present v5.5a

Guidelines for Abstraction: Infections

Inclusions

- C. difficile (C-diff)
- Septic

Severe Sepsis Present v5.5a

- For the following, physician/APN/PA documentation prior to or within 24 hours after *Severe Sepsis Presentation Time* **is required**.
 - If the SIRS criteria or a sign of organ dysfunction is due to the following, it **should not be used**. Inferences should not be made. **The abnormal value or reference to the abnormal value must be in the same documentation.**
 - Normal for that patient
 - Is due to a chronic condition
 - Is due to a medication

Severe Sepsis Present v5.5a

Examples:

- Do not use value since the creatinine and the chronic condition are in the same documentation and section of the H&P.

H&P: Assessment Section

Renal Assessment

History of CKD

Creatinine 3.0

HD daily

- Do not use the hypotensive readings since the medication is in the same sentence.

“Hypotensive after pain meds”

Severe Sepsis Present v5.5a

- If SIRS criteria or a sign of organ dysfunction is due to an acute condition that has a non-infectious source/process, it **should not be used**. (Refer to *Severe Sepsis Present* criteria “a” to determine if the source of the acute condition is an infection.)

Severe Sepsis Present v5.5a

Examples:

- “Lactate 4.3 r/t seizure” “Seizure post brain injury” (seizure is the acute condition and brain injury is the non-infectious source).
- “AKI, dehydrated due to nephrotoxic medication, creatinine 3.8.” (AKI and dehydration are the acute conditions and medication is the non-infectious source).
- APN Note: “Elevated Cr secondary to dehydration post DKA.” Physician Note: “DKA likely due to patient non-compliance with meds.”

(dehydration is the acute condition and DKA is the non-infectious source because it is due to medication non-compliance).

Severe Sepsis Present v5.5a

- If SIRS criteria or a sign of organ dysfunction should not be used based on the above guidance, all instances of less severe values **should not be used.**

Examples:

- “Platelet count 75 r/t chemo” (platelet counts ≥ 75 would not be used).
- “Cr 2.8, CKD” (creatinine values ≤ 2.8 would not be used).

Severe Sepsis Present v5.5a

- If SIRS criteria or a sign of organ dysfunction is due to the following, the criteria value **should be used**.
 - Acute condition
 - Examples:**
 - Progress Note: “Lactate 4.3 r/t seizure.”
 - H&P: “AKI, dehydration, creatinine 3.8.”
 - Acute on chronic condition
 - Examples:**
 - H&P: “Acute on chronic renal failure, creatinine 2.8.”
 - Progress Note: “Hypotension due to acute exacerbation of chronic heart failure.”
 - Infection
 - Example:**
 - Physician Note: “Cholecystitis with Hyperbilirubinemia.”
 - Antibiotic Order Indication: “Cholecystitis” (The antibiotic indication confirms cholecystitis is an infection).

Severe Sepsis Present v5.5a

- Documentation of a term that represents or is defined by a SIRS criteria or sign of organ dysfunction is acceptable in place of an abnormal value.

Examples include but are not limited to:

- Tachypnea (Respiration >20 per minutes)
- A-fib with tachycardia, A-fib with RVR, or tachycardia (Heart rate >100)
- Leukopenia (White blood cell count <4,000)
- Leukocytosis (White blood cell count >12,000)
- Thrombocytopenia (Platelet count <100,000)
- Hypotension (Systolic blood pressure <90 mmHg)

Severe Sepsis Present v5.5a

- If within the same physician/APN/PA documentation, there is conflicting documentation indicating SIRS criteria or sign of organ dysfunction is normal for the patient, or due to a chronic condition or medication AND due to or possibly due to an infection, Severe Sepsis, or Septic Shock, the criteria value **should be used**.

Examples:

- “Creatinine 4.3, CKD, potentially increasing due to worsening UTI,” creatinine value should be used.
- “Thrombocytopenia possibly due to NSAID use, however complicated by sepsis,” platelet value should be used.

Severe Sepsis Present v5.5a

- If within 24 hours after *Severe Sepsis Presentation Time* there is conflicting information **within two or more separate** pieces of physician/APN/PA documentation indicating SIRS criteria or sign of organ dysfunction is normal for the patient, or due to a chronic condition or medication AND due to or possibly due to an infection, Severe Sepsis, or Septic Shock, abstract based on the latest piece of documentation within the 24-hour period.

Examples:

- H&P 0900: "Tachypnea, on 2L NC, chronic emphysema."
 - Consult 1500: "URI x 2 days with worsening tachypnea."
 - Elevated respiratory rate should be used.
- Note 1800: "Patient has been taking Lasix BID for 1 week, presenting with hypotension and dehydration."
 - Note 2230: "Dehydration and hypotension currently, Lasix discontinued, starting fluid resuscitation for possible sepsis."
 - Hypotensive readings should be used.

Severe Sepsis Present v5.5a

- For documentation of an infection, Severe Sepsis, or Septic Shock accompanied by a qualifier, the table below should be used. Documentation containing a positive qualifier should be used to meet criteria, documentation containing a negative qualifier should not be used to meet criteria. Documentation containing both a positive and negative qualifier should not be used to meet criteria.

Positive Qualifiers	Negative Qualifiers
Possible	Impending
Rule out (r/o)	Unlikely
Suspected	Doubt
Likely	Risk for
Probable	Ruled out
Differential Diagnosis	Evolving
Suspicious for	Questionable
Concern for	

Severe Sepsis Presentation Date & Time v5.5a

- Use the earliest documented arrival time for patients who enter the emergency department with the following:
 - Severe sepsis clinical criteria met in pre-hospital records
 - Physician/APN/PA documentation of severe sepsis in pre-hospital records
 - Physician/APN/PA documentation that severe sepsis was present on arrival

Severe Sepsis Presentation Date & Time v5.5a

- Use the earliest documented time patient arrives to floor or unit for admission for patients who are admitted with the following:
 - Severe sepsis clinical criteria met in pre-hospital records and patient is a direct admit
 - Physician/APN/PA documentation of severe sepsis in pre-hospital records and patient is a direct admit
 - Physician/APN/PA documentation that severe sepsis was present on admission



SEP-1 Early Management Bundle, Severe Sepsis/Septic Shock:
v5.0b through v5.2b Analysis Results

Presented by: Bob Dickerson

Disclaimer

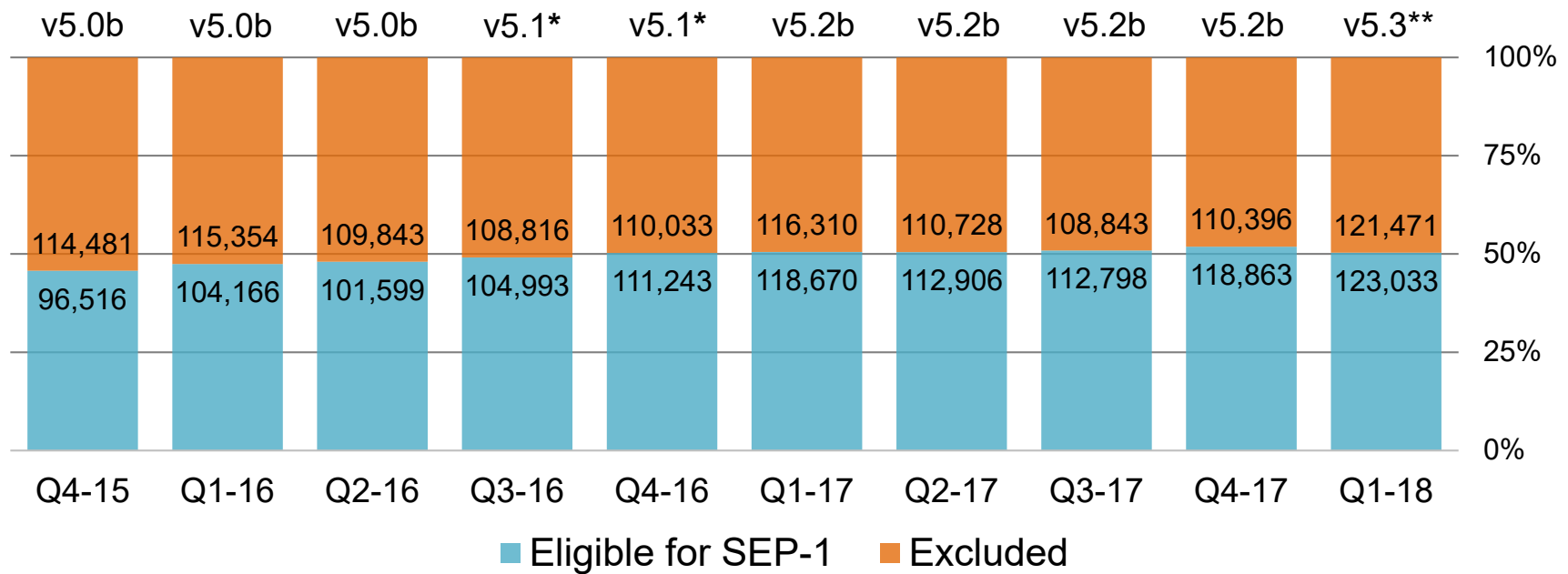
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SEP-1: Completing The Bundles

Required Action	Severe Sepsis		Septic Shock	
	3-Hr Bundle	6-Hr Bundle	3-Hr Bundle	6-Hr Bundle
Initial Lactate Collection	Yes	Must be completed within 3-hrs of Severe Sepsis Presentation		
Blood Culture Collection	Yes			
Initial Antibiotic Started	Yes			
Repeat Lactate Collection (if Initial Lactate is > 2)	N/A	Yes	Completed within 6-hrs of Severe Sepsis presentation	
30 mL/kg Crystalloid Fluids Started	N/A	N/A	Yes	Completed within 3-hrs of initial hypotension and/or septic shock
Vasopressor Given (if hypotension persists)	N/A	N/A	Completed within 6-hrs of septic shock	Yes
Repeat Volume Status Assessment	N/A	N/A		Yes

SEP-1 Initial Patient Population



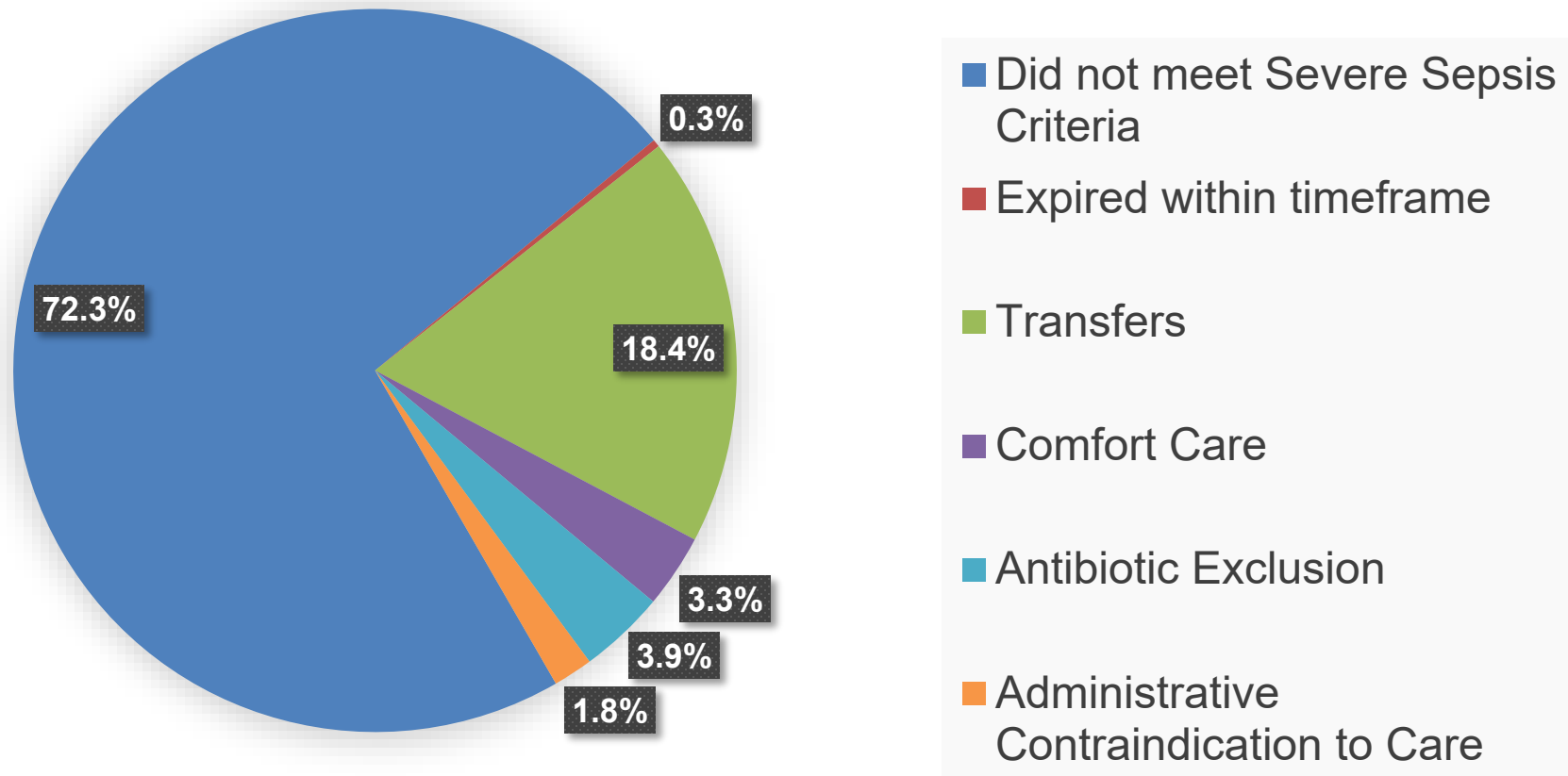
> 99% of hospitals successfully submitted SEP-1 data

- Q4 2015 (1st Q of reporting) 99.9% of participating hospitals submitted data
- Q1 2016 – Q3 2016 100% submitted data
- Q4 2016 99.97% of participating hospitals submitted data

*Defined administrative contraindication to care for severe sepsis and septic shock cases.

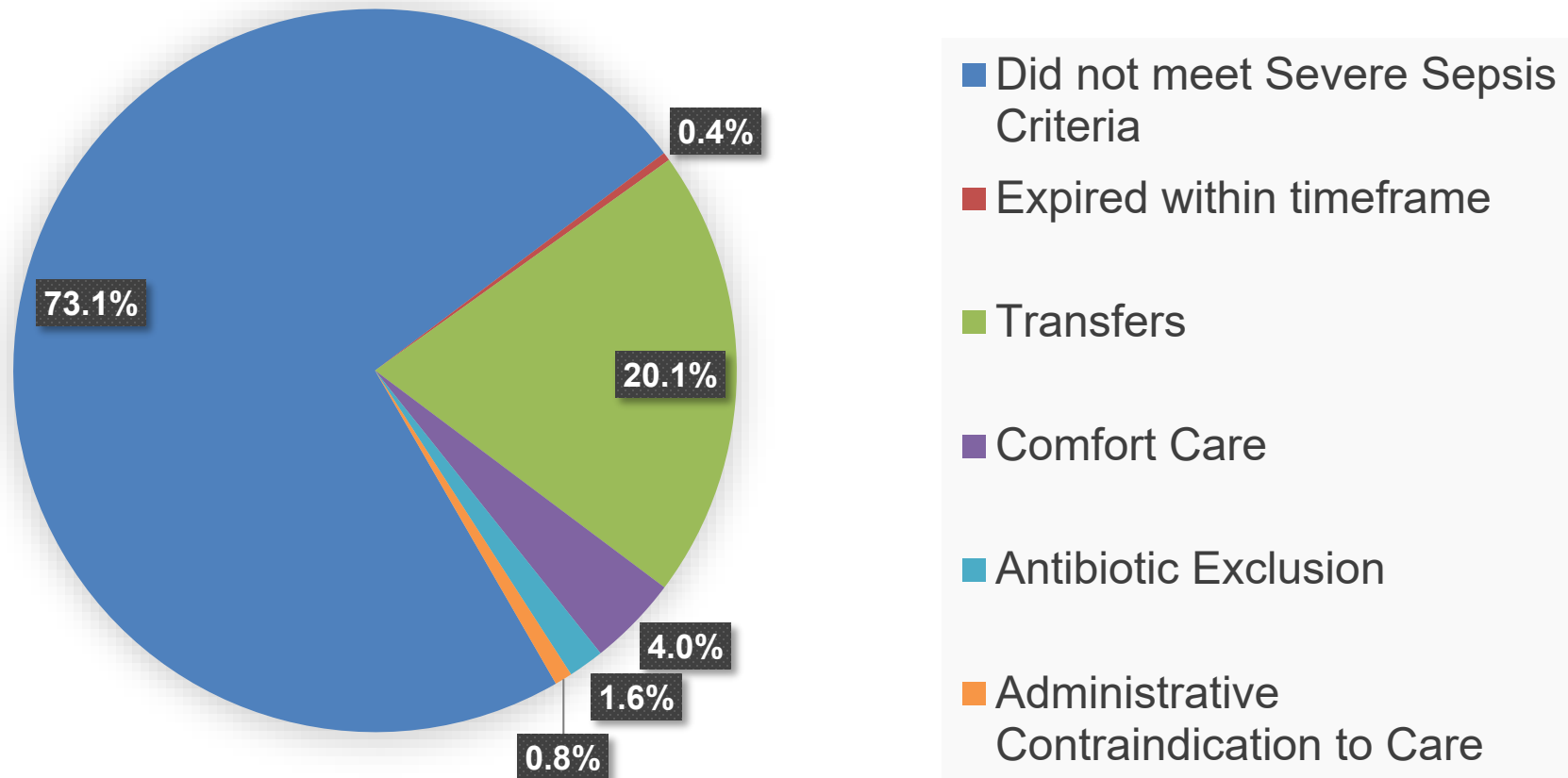
**Algorithm revised to allow earlier exclusion for antibiotic timing, exclusion for Clinical Trial added.

Breakdown of SEP-1 Exclusion Population: v5.0b



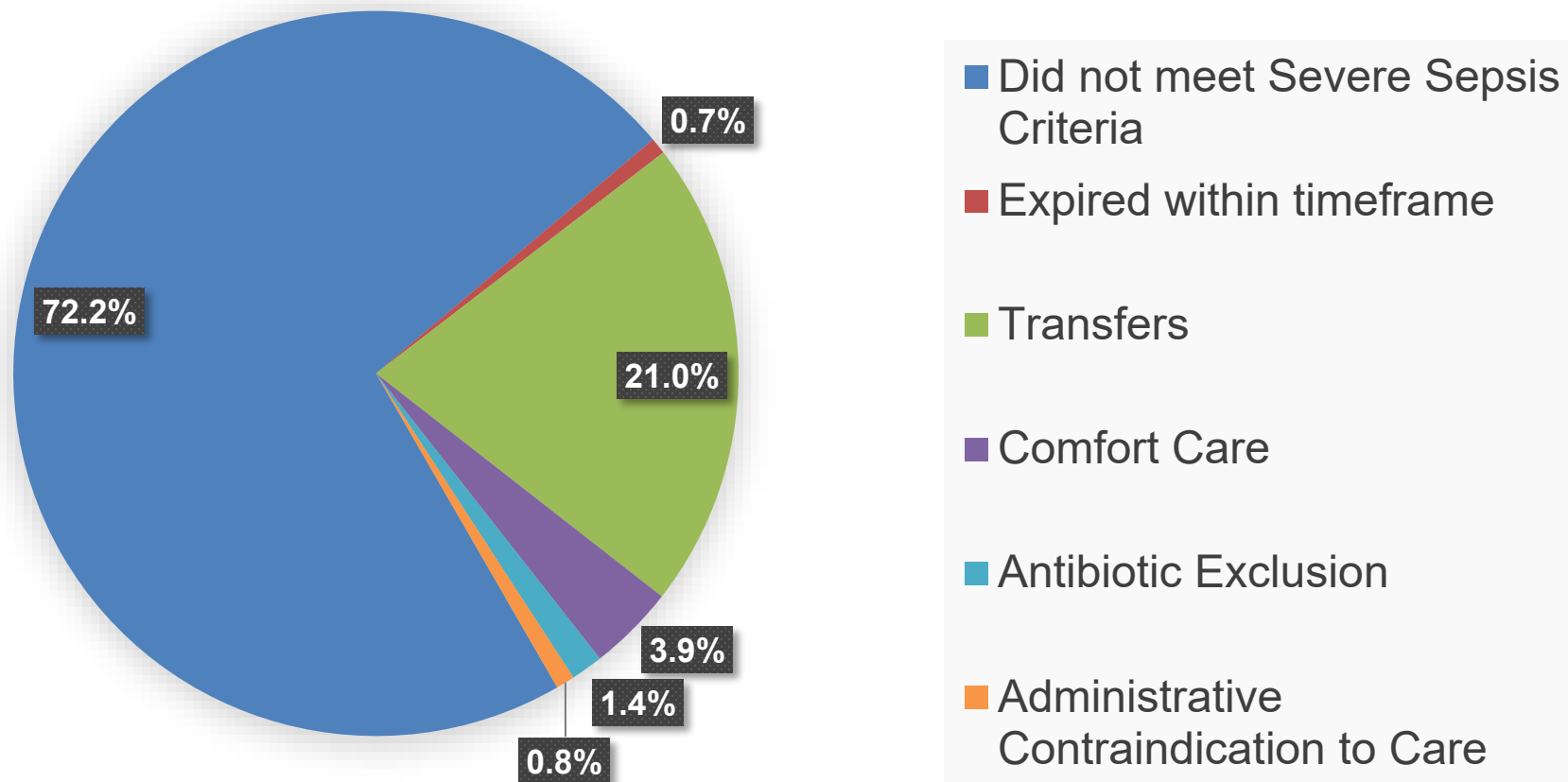
Note: Cumulative data from October 2015–June 2016
(339,678 total exclusions for cases)

Breakdown of SEP-1 Exclusion Population: v5.1



Note: Cumulative data from July 2016–December 2016
(218,849 total exclusions for cases)

Breakdown of SEP-1 Exclusion Population: v5.2b



Note: Data from January 2017–December 2017
(444,489 total exclusions for cases)

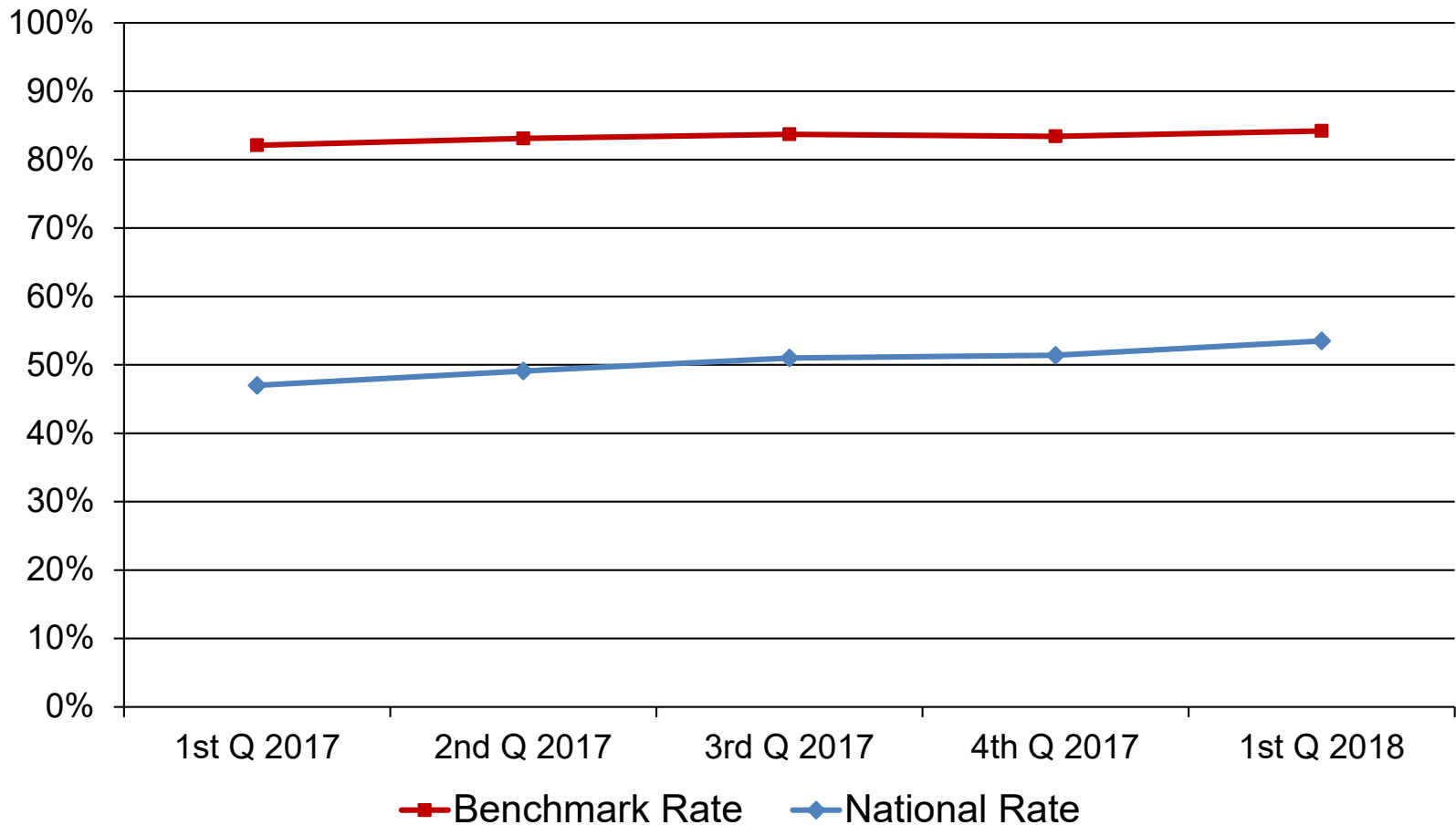
Initial Population by Bundle and Total Eligible Cases

	v5.0b	v5.0b	v5.0b	v5.1	v5.1	v5.2b	v5.2b	v5.2b	v5.2b	V5.3
Bundle	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018
Initial Pop	210,997	219,520	211,442	213,809	221,276	234,980	223,634	221,641	229,259	244,504
Sev Sep 3-hr	100,996	109,295	106,537	106,969	113,264	120,684	112,906	112,798	118,863	123,033
Sev Sep 6-hr	52,844	58,819	58,612	51,498	56,817	61,912	58,716	59,491	63,985	66,847
Shock 3-hr	24,669	26,475	26,165	34,411	38,211	42,796	40,986	40,968	43,652	40,856
Shock 6-hr (Vasopressor)	5,127	5,301	5,139	4,312	4,650	5,067	4,870	4,696	5,106	5,220
Shock 6-hr (Rpt Perf Assessment)	8,567	9,888	10,096	8,460	9,748	11,335	10,301	10,262	11,378	12,095
Total Eligible Cases*	96,516	104,166	101,599	104,993	111,243	118,670	112,906	112,798	118,863	123,033

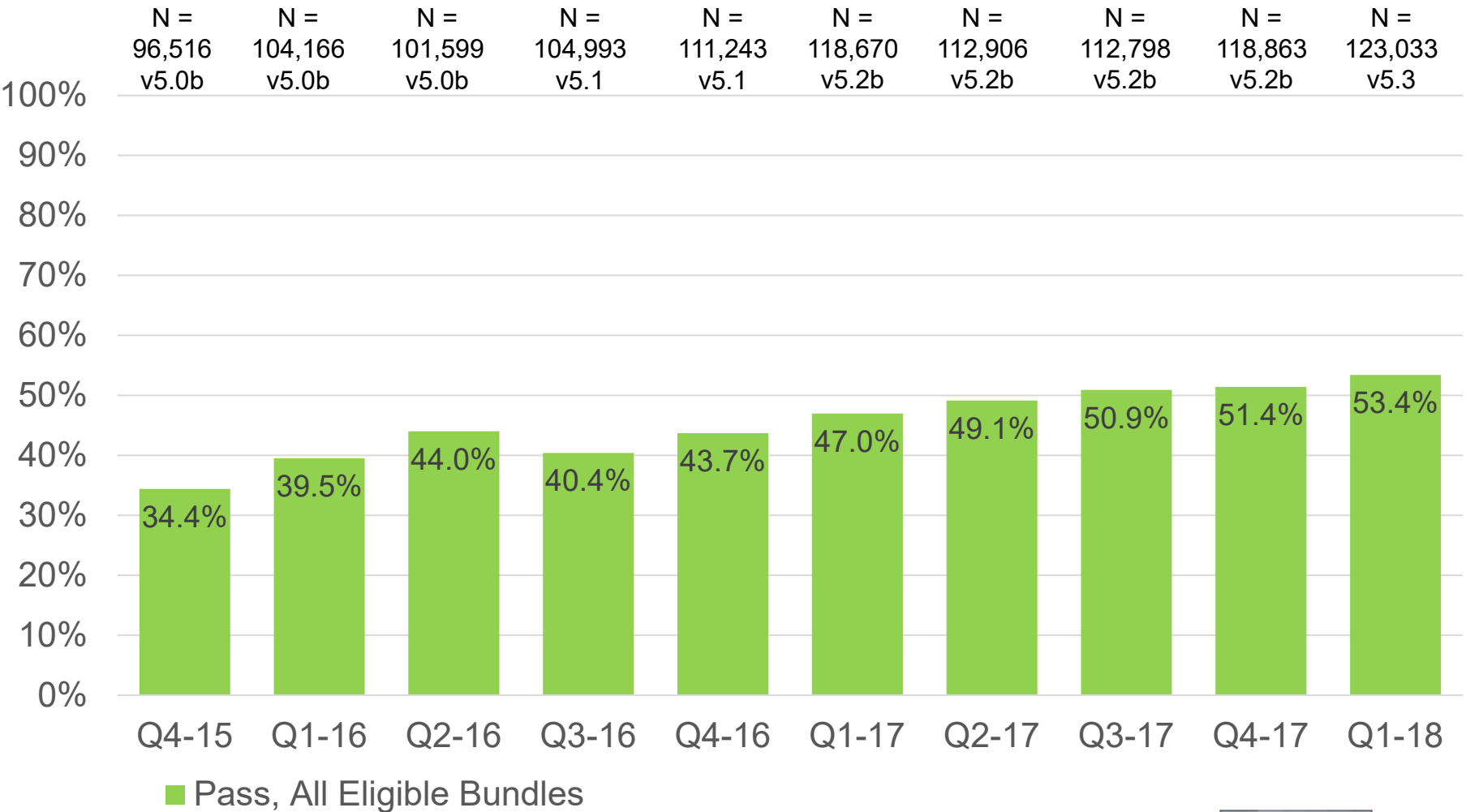
*Total eligible cases are patients in Initial Patient Population that met inclusion criteria and did not meet any exclusion criteria. Exclusions occur throughout the measure algorithm.

SEP-1 Benchmark Report

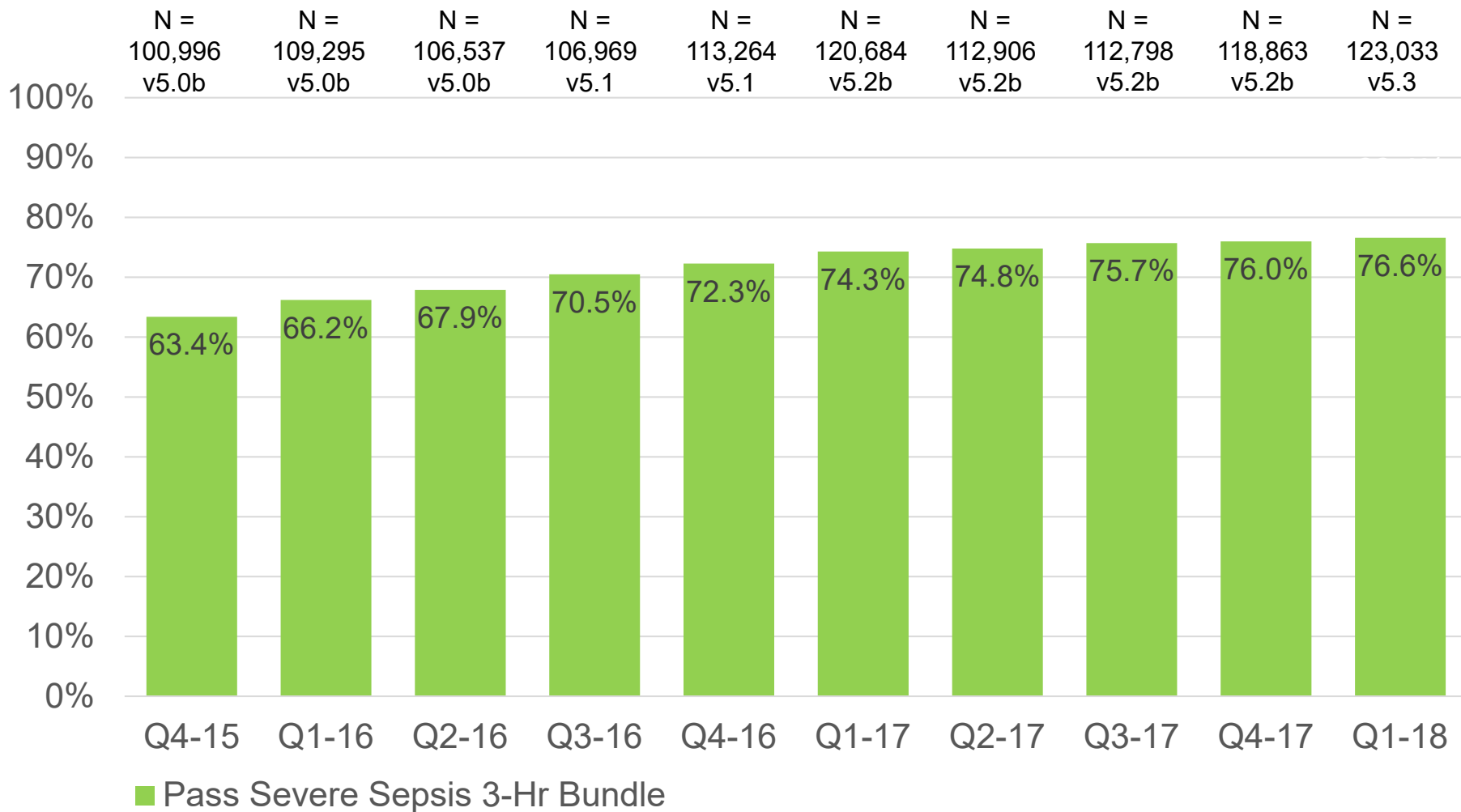
SEP-1: Early Management Bundle, Severe Sepsis/Septic Shock Overall Performance



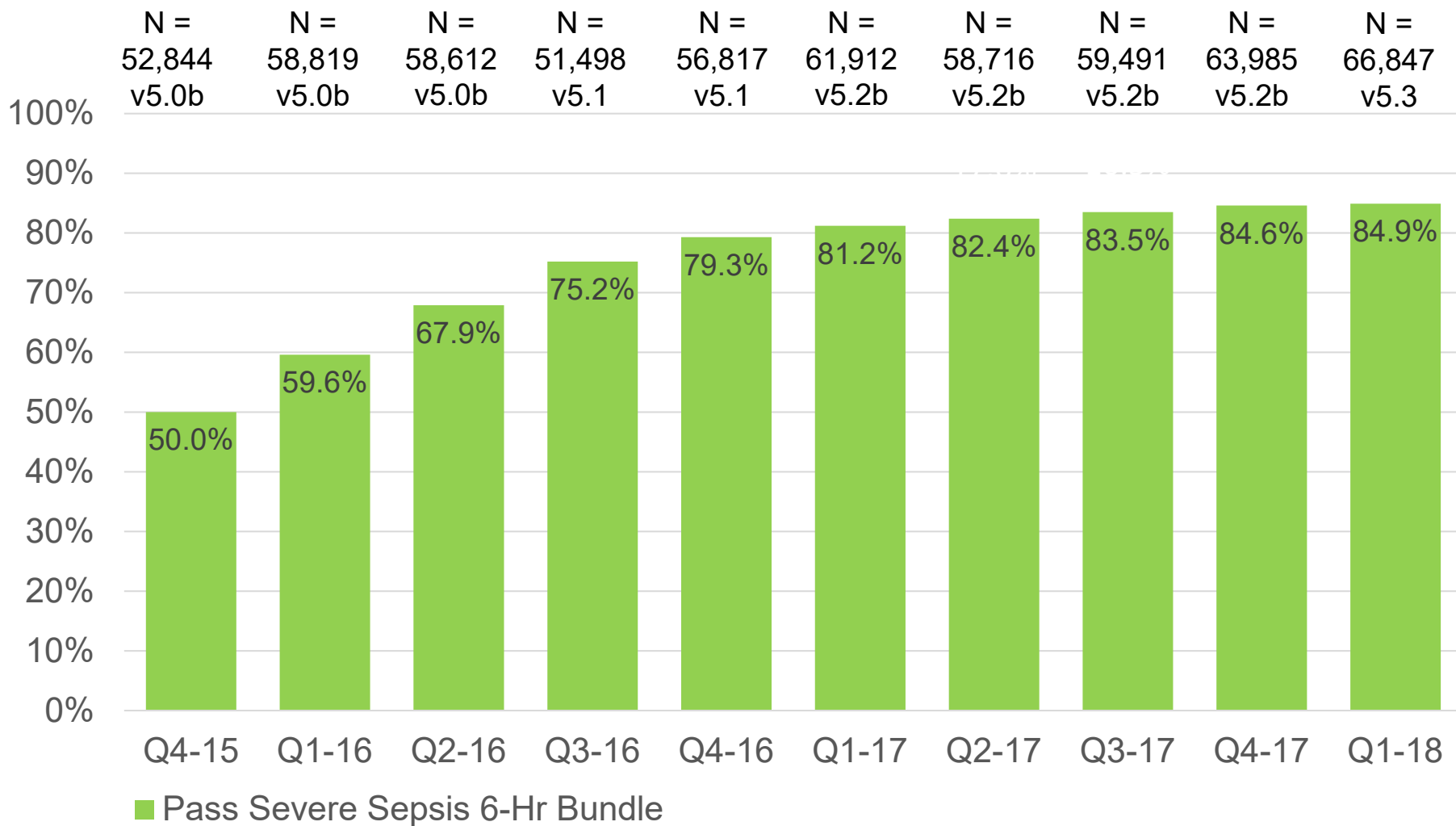
Breakdown of SEP-1: Overall Performance for Eligible Population



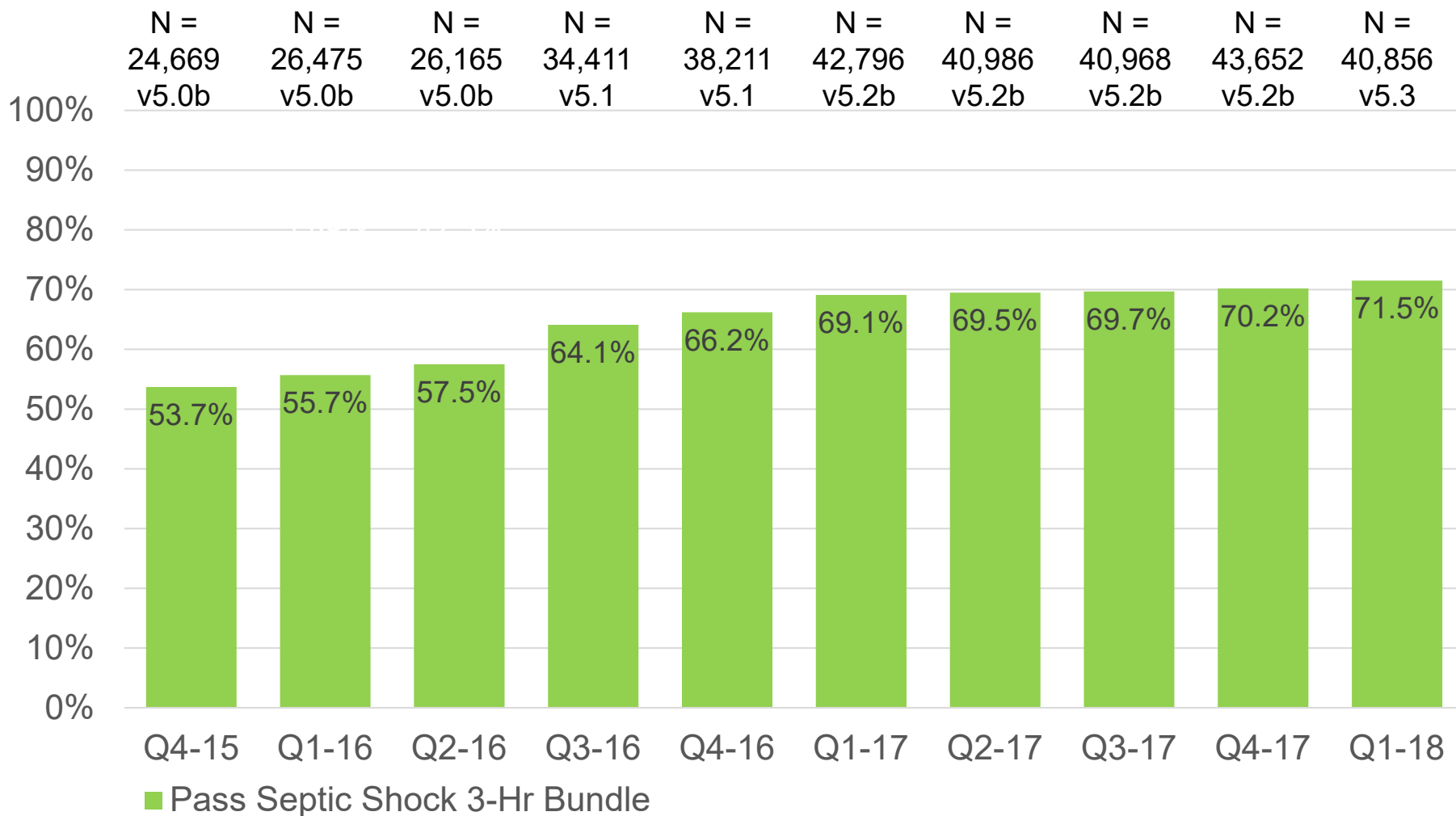
Breakdown by SEP-1 Bundles: Severe Sepsis 3-Hour Bundle



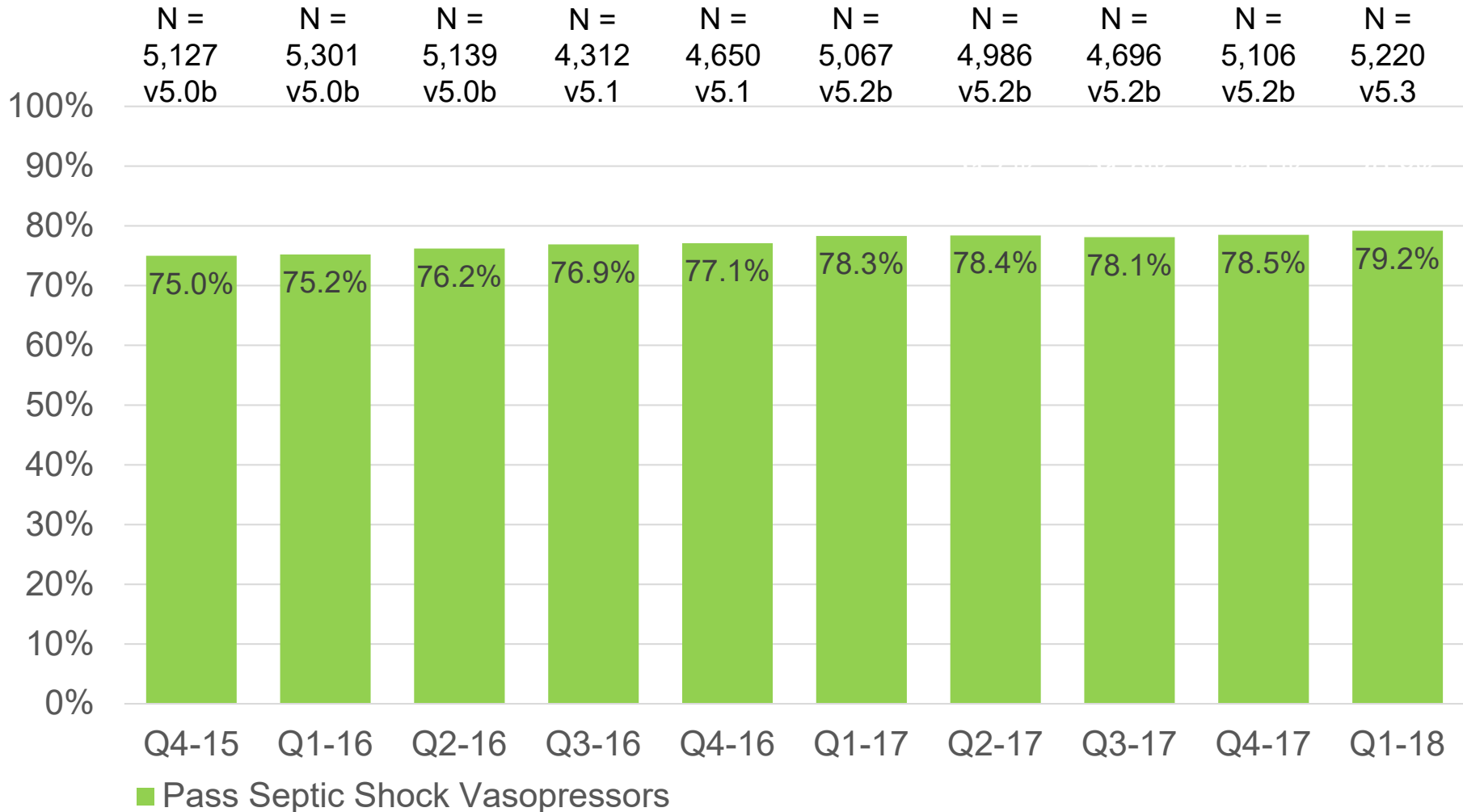
Breakdown by SEP-1 Bundles: Severe Sepsis 6-Hour Bundle



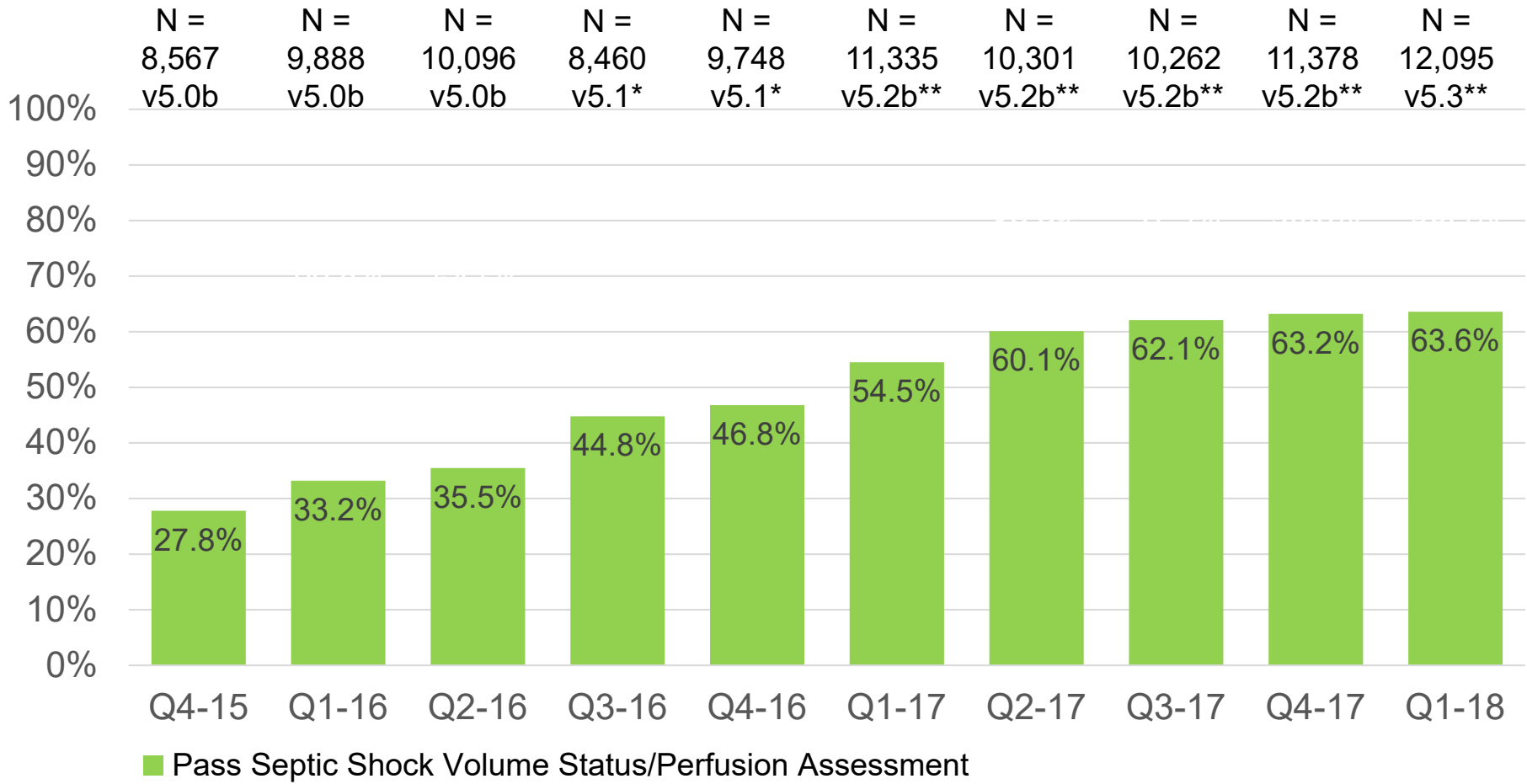
Breakdown by SEP-1 Bundles: Septic Shock 3-Hour Bundle



Breakdown by SEP-1 Bundles: Shock 6-Hour Bundle – Vasopressors



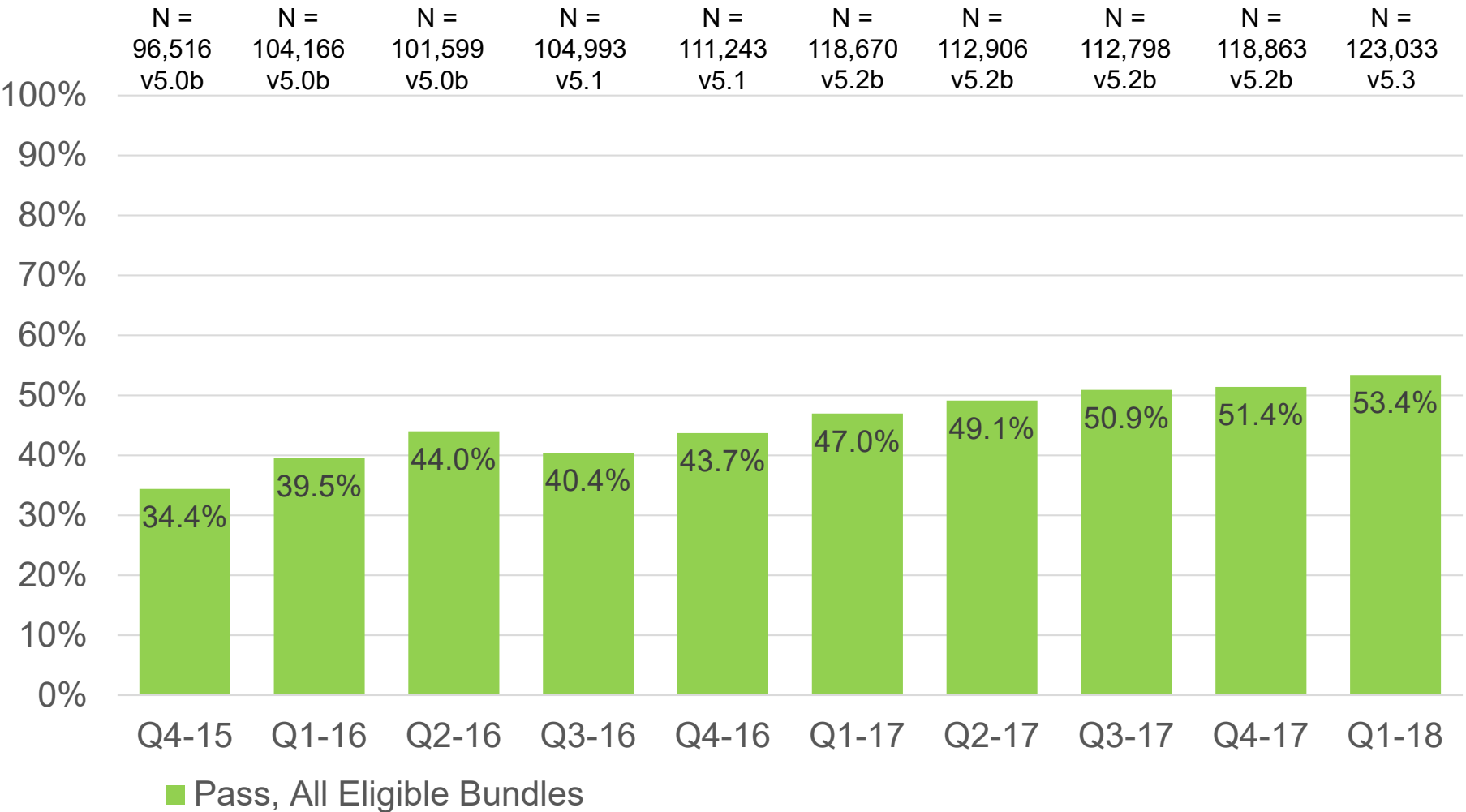
Breakdown by SEP-1 Bundles: Septic Shock 6-Hour Bundle – Assessment



*Changed requirement from physician performed to physician documented.

**Clinician attestation of performing assessment added.

Breakdown of SEP-1: Overall Performance for Eligible Population



SEP-1 Early Management Bundle, Severe Sepsis/Septic Shock:
v5.5a Measure Updates & v5.0b through v5.2b Analysis Results

Thank You

SEP-1 Early Management Bundle, Severe Sepsis/Septic Shock:
v5.5a Measure Updates & v5.0b through v5.2b Analysis Results

Questions

SEP-1 Early Management Bundle, Severe Sepsis/Septic Shock:
v5.5a Measure Updates & v5.0b through v5.2b Analysis Results

Continuing Education

Continuing Education (CE) Approval

This program has been approved for 1.5 CE credits for the following boards:

- **National credit**
 - Board of Registered Nursing (Provider #16578)
- **Florida-only credit**
 - Board of Clinical Social Work, Marriage & Family Therapy and Mental Health Counseling
 - Board of Registered Nursing
 - Board of Nursing Home Administrators
 - Board of Dietetics and Nutrition Practice Council
 - Board of Pharmacy

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2. Register on the HSAG Learning Management Center for the certificate
3. Print out your certificate



Note: An additional survey will be sent to all registrants within the next 48 hours.

CE Credit Process: Survey

No

Please provide any additional comments

10. What is your overall level of satisfaction with this presentation?

Very satisfied

Somewhat satisfied

Neutral

Somewhat dissatisfied

Very dissatisfied

If you answered "very dissatisfied", please explain

11. What topics would be of interest to you for future presentations?

12. If you have questions or concerns, please feel free to leave your name and phone number or email address and we will contact you.

Done

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Thank you for completing our survey!

Please click on one of the links below to obtain your certificate for your state licensure.

You must be registered with the learning management site.

New User Link:

<https://lmc.hshapps.com/register/default.aspx?ID=da0a12bc-db39-408f-b429-d6f6b9ccb1ae>

Existing User Link:

<https://lmc.hshapps.com/test/adduser.aspx?ID=da0a12bc-db39-408f-b429-d6f6b9ccb1ae>

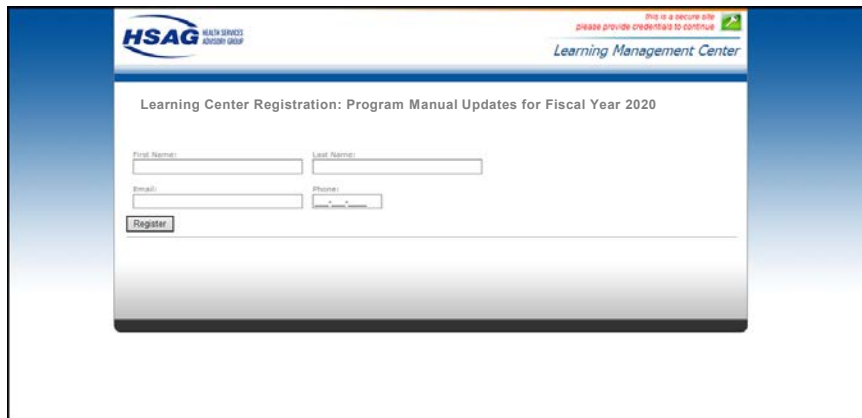
Note: If you click the 'Done' button below, you will not have the opportunity to receive your certificate without participating in a longer survey.

Done

Register for Credit

New User

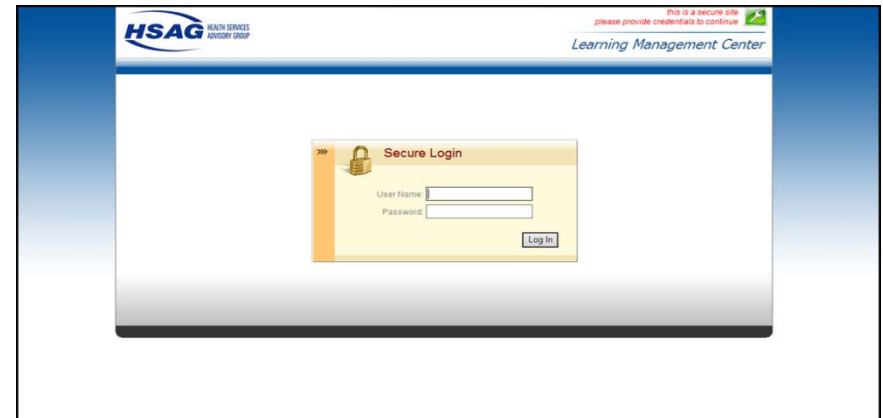
Use personal email and phone.
Go to email address and
finish process.



The screenshot shows the HSAG Learning Management Center registration page. The header includes the HSAG logo and the text "Learning Management Center". Below the header, the page title is "Learning Center Registration: Program Manual Updates for Fiscal Year 2020". The registration form contains four input fields: "First Name:", "Last Name:", "Email:", and "Phone:". A "Register" button is located at the bottom left of the form area.

Existing User

Entire email is your user name.
You can reset your password.



The screenshot shows the HSAG Learning Management Center secure login page. The header includes the HSAG logo and the text "Learning Management Center". The main content area features a "Secure Login" box with a padlock icon. Inside the box, there are two input fields: "User Name:" and "Password:". A "Log In" button is located at the bottom right of the login box.

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