Secondary BSI Group Exercise
ENDO and GIT Case Study

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Case Study Part 1: Mr. Oliver Pope

- **3/1**: 55 year-old male admitted with chills and fatigue. PMH: IVDU, Diabetes and Diverticulitis. PICC placed due to poor venous access
  - Blood cultures collected: MRSA positive x 4; Vancomycin started
- **3/2**: TEE – "echodensity with the triscupid valve consistent with vegetation"
- **3/4**: Blood cultures collected again. MRSA positive x 2
- **3/9**: Patient reports feeling better. Wants to go home

What Determination Should Be Made In This Case?

A. HAI ENDO 7 with secondary BSI
B. POA ENDO 5 with secondary BSI
C. POA ENDO 4 with secondary BSI
D. POA BSI (LCBI 1)

What Elements Were Used To Make This Determination?

What About the 3/4 MRSA Blood Cultures?

A. BSI (LCBI 1)/ CLABSI
B. POA ENDO 4 with secondary BSI
C. HAI BSI (LCBI 1)
D. POA BSI (LCBI 1)

What Scenario Was Applied In This Case?

A. Scenario 1
B. Scenario 2
C. Both
D. Neither

If This Patient Has Subsequent MRSA Blood Cultures, I Can Add Them to the ENDO SBAP

A. True

B. False

Case Study Part 1

With Answers

What Determination Should Be Made In This Case?

A. HAI ENDO 7 with secondary BSI

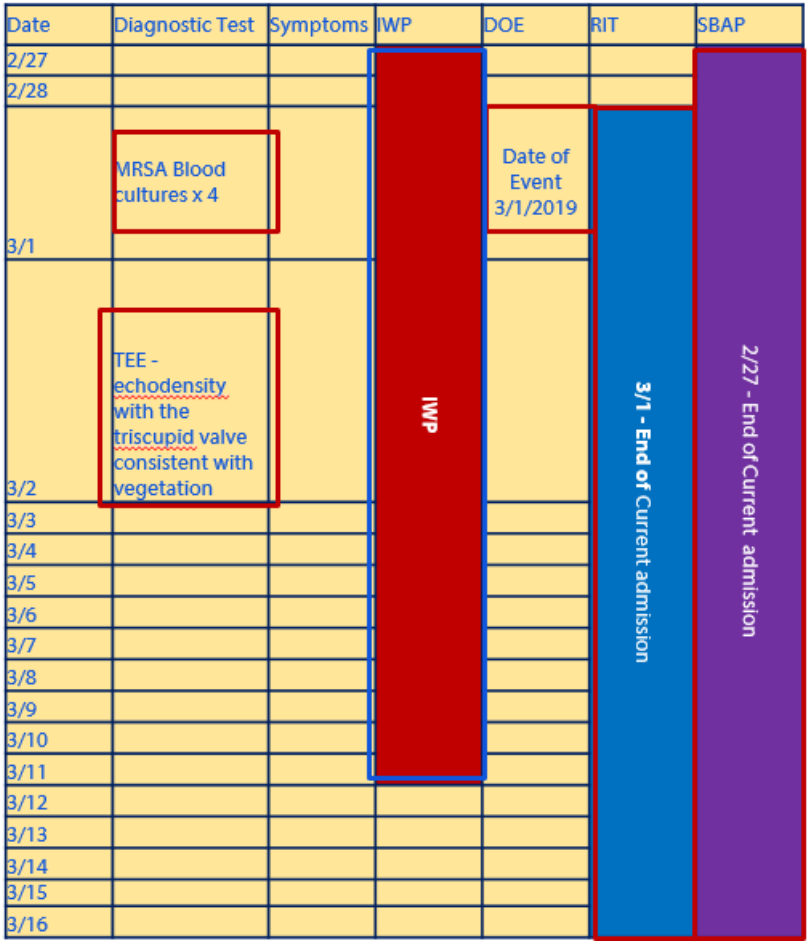
B. POA ENDO 5 with secondary BSI

C. POA ENDO 4 with secondary BSI

D. POA BSI (LCBI 1)

What Elements Were Used To Make This Determination?

- POA ENDO 4 cited 3/1
- 3/1 MRSA blood cultures created 2/27 – 3/11 ENDO IWP
  - 3/2 TEE captured
- POA ENDO RIT: 3/1 – End of Current admission
- ENDO SBAP: 2/27 – End of Current admission



What About the 3/4 MRSA Blood Cultures?

A. BSI (LCBI 1)/ CLABSI

B. POA ENDO 4 with secondary BSI

C. HAI BSI (LCBI 1)

D. POA BSI (LCBI 1)

Chapter 17, page 17-12

- *As a result of this lengthy secondary BSI attribution period, secondary BSI pathogen assignment for ENDO, is limited to organism(s) identified in blood specimen that match the organism(s) used to meet the ENDO definition.*

What Scenario Was Applied In This Case?

A. Scenario 1

B. Scenario 2

C. Both

D. Neither

Scenario 2: An organism identified in the blood specimen is an element that is used to meet the NHSN site-specific infection criterion, and therefore is collected during the site-specific infection window period.

If This Patient Has Subsequent MRSA Blood Cultures, I Can Add Them to the ENDO SBAP

A. True

B. False

Chapter 17, page 17-12

- *As a result of this lengthy secondary BSI attribution period, secondary BSI pathogen assignment for ENDO, is limited to organism(s) identified in blood specimen that match the organism(s) used to meet the ENDO definition.*

Case Study Part 2

Case Study Part 2: Mr. Oliver Pope

- **3/10:** Despite Mr. Pope wanting to go home, he's still admitted.
- **3/12:** Blood cultures collected. Klebsiella pneumoniae
- **3/14:** LLQ Abdominal pain "7" out of 10.
  - 103^{o}F and diarrhea
- **3/15:** CT scan– "Loculated fluid collection in the bowel wall. Consistent with abscess"

What Determination Should Be Made In This Case?

A. 3/1 ENDO 4 with secondary BSI
B. 3/12 GIT 2c with secondary BSI
C. 3/12 IAB 3b with secondary BSI
D. 3/12 BSI (LCBI 1)/CLABSI

What Elements Were Used To Make This Determination?

What Scenario Was Applied In This Case?

A. Scenario 1
B. Scenario 2
C. Both
D. Neither

Case Study Part 2

With Answers

What Determination Should Be Made In This Case?

A. 3/1 ENDO 4 with secondary BSI

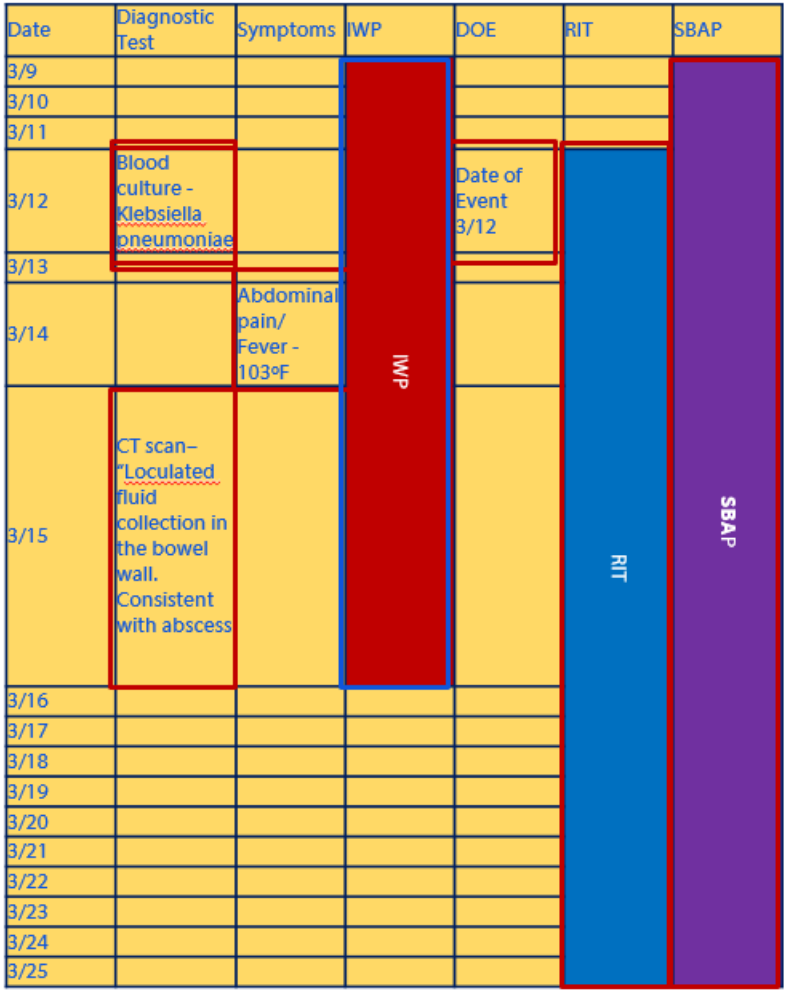
B. 3/12 GIT 2c with secondary BSI

C. 3/12 IAB 3b with secondary BSI

D. 3/12 BSI (LCBI 1)/CLABSI

What Elements Were Used To Make This Determination?

- HAI GIT 2c cited 3/12
- Klebsiella pneumoniae creates GIT IWP: 3/9 – 3/15
  - 3/14 Fever and Abdominal pain
  - 3/15 CT Scan – “Loculated fluid collection in the bowel wall. Consistent with abscess”
- GIT RIT: 3/12 – 3/25
- GIT SBAP: 3/9 – 3/25



What Scenario Was Applied In This Case?

A. Scenario 1

B. Scenario 2

C. Both

D. Neither

Scenario 2: An organism identified in the blood specimen is an element that is used to meet the NHSN site-specific infection criterion, and therefore is collected during the site-specific infection window period.

Case Study Part 3

Case Study Part 3: Oliver Pope

- 3/16 – Mr. Pope is still with us!
- 3/17 – 103^{o}F; Chills reported. Abdominal pain
  - Blood cultures collected: Candida albicans x 2
- 3/18 – CT scan revealed large colonic abscess. Sent to Interventional Radiology.
  - IR drainage: Serosanguineous; Abscess culture: + Candida albicans
- 3/20 – TEE: “echodensity with triscupid valve still present consistent with vegetation”

What Determination Should Be Made In This Case?

A. 3/17 GIT 2a with secondary BSI
B. 3/17 GIT 2a with secondary BSI & 3/17 GIT 2c with secondary BSI
C. 3/17 ENDO 6 with secondary BSI
D. B, C

What Elements Were Used To Make This Determination?

What Scenario Was Applied In This Case?

A. Scenario 1
B. Scenario 2
C. Both
D. Neither

If the 3/17 Blood Cultures Were Positive with only Pseudomonas, Would Your Determination Remain the Same? Why?

A. Yes
B. No

Case Study Part 3

With Answers

What Determination Should Be Made In This Case?

A. 3/17 GIT 2a with secondary BSI

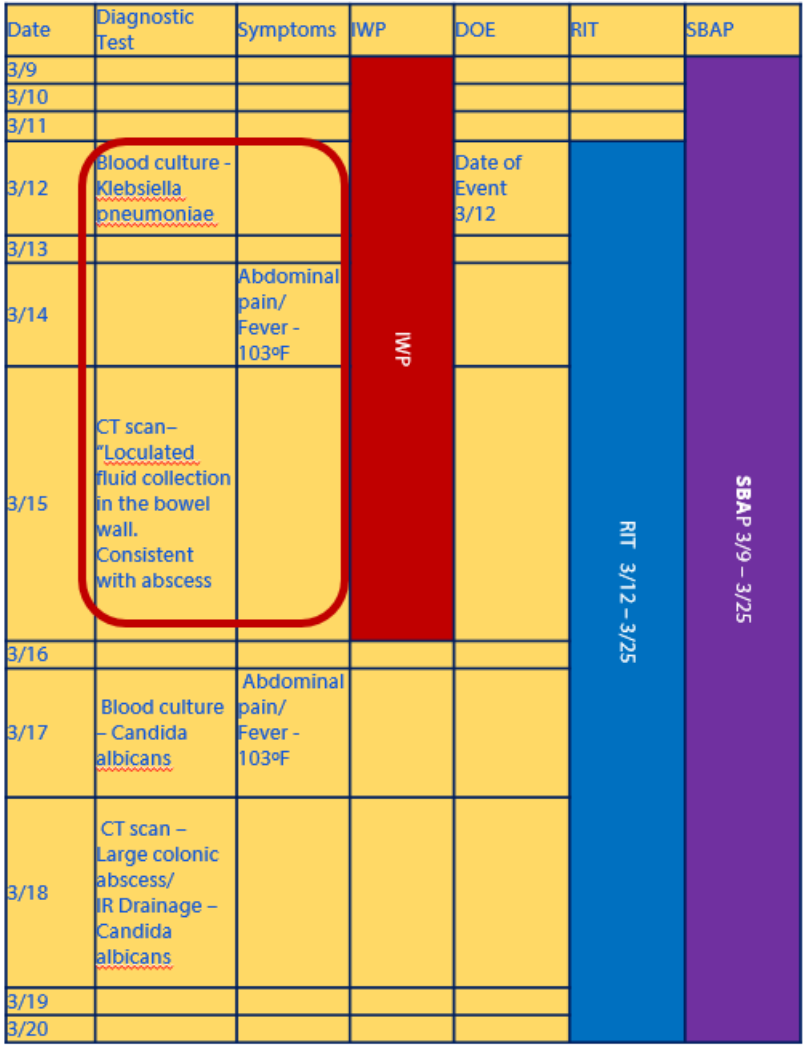
B. 3/17 GIT 2a with secondary BSI & 3/17 GIT 2c with secondary BSI

C. 3/17 ENDO 6 with secondary BSI

D. B, C

What Elements Were Used To Make This Determination?

- GIT 2c initially met 3/12
- During GIT 2c 3/12 – 3/25 RIT
  - GIT 2c met again on 3/17
    - 3/17 Blood culture, abd pain, fever
    - 3/18 – Imaging test – Colonic abscess
    - 3/17 Candida blood culture deemed secondary.
  - GIT 2a met 3/17
    - 3/17 Fever and abdominal pain
    - 3/18 IR drainage culture – Candida albicans.
    - 3/17 Candida blood culture also deemed secondary



What Elements Were Used To Make This Determination?

- **ENDO 6 cited 3/17 during RIT of POA ENDO.**
  - 3/17 Fever – 103°F
  - 3/17 Candida albicans blood culture
  - 3/20 – TEE: “echodensity with triscupid valve still present consistent with vegetation
  - IVDU history

What Scenario Was Applied In This Case?

A. Scenario 1

B. Scenario 2

C. Both

D. Neither

Both Scenarios Were Applied

Scenario 1

At least one organism i… blood specimen ma… organism identified from t… specific specimen that is used as an element to meet the NHSN site-specific infection criterion **AND** the blood specimen is **collected during the secondary BSI attribution period (infection window period + repeat infection timeframe)**

GIT 2a with secondary BSI

Scenario 2

An organism identified in the blood specimen is an element that is used to meet the NHSN site-specific infection criterion, and therefore is **collected during the site-specific infection window period**

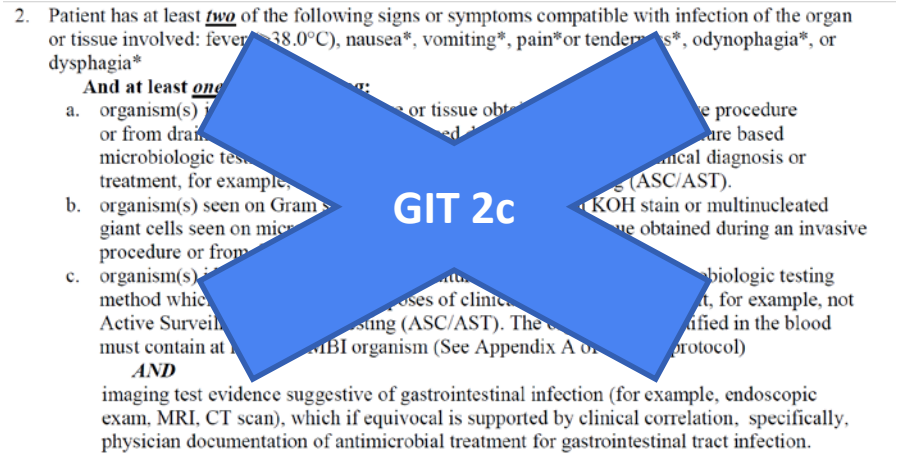
GIT 2c with secondary BSI
ENDO 6 with secondary BSI

If the 3/17 Blood Cultures Were Positive with only Pseudomonas, Would Your Determination Remain the Same? Why?

A. Yes

B. No

Pseudomonas Blood Culture Rationale



Pseudomonas blood culture cannot be deemed secondary to this criterion because the site-specific and blood cultures do not contain matching organisms.

Pseudomonas blood culture cannot be deemed secondary to this criterion because the blood culture does not contain an eligible organism to cite GIT 2c

Pseudomonas Blood Culture Rationale (Cont.)

6. At least ***one*** of the following*†:
   i. vegetation on cardiac valve or supporting structures seen on echocardiogram
   ii. intracardiac abscess seen on echocardiogram
   iii. new partial dehiscence of prosthetic valve seen on echocardiogram

   And at least *three* of the following:
   a. prior endocarditis, prosthetic valve, uncorrected congenital heart disease, history of rheumatic heart disease, hypertrophic obstructive cardiomyopathy, or known IV drug use‡
   b. fever (>38.0°C)
   c. vascular phenomena: major arterial emboli (specifically, embolic stroke, renal infarct, splenic infarct or abscess, digital ischemic/gangrene from embolic source), septic pulmonary infarcts, mycotic aneurysm (documented by imaging, seen in surgery, or described in gross pathological specimen), intracranial hemorrhage, conjunctival hemorrhages, or Janeway's lesions documented
   d. immunologic phenomena: glomuleronephritis (documented in chart, or white cell or red blood cell casts on urinalysis), Osler's nodes, Roth's spots, or positive rheumatoid factor
   e. identification of organism(s) from the blood by at least ***one*** of the following methods:
      - recognized pathogen(s) identified from blood by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment ,for example, not Active Surveillance Culture/Testing (ASC/AST)
      - same common commensal organism(s) identified from ≥2 blood collections drawn on separate occasions on the same or consecutive days by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical

ENDO 6 with secondary BSI determination remains the same