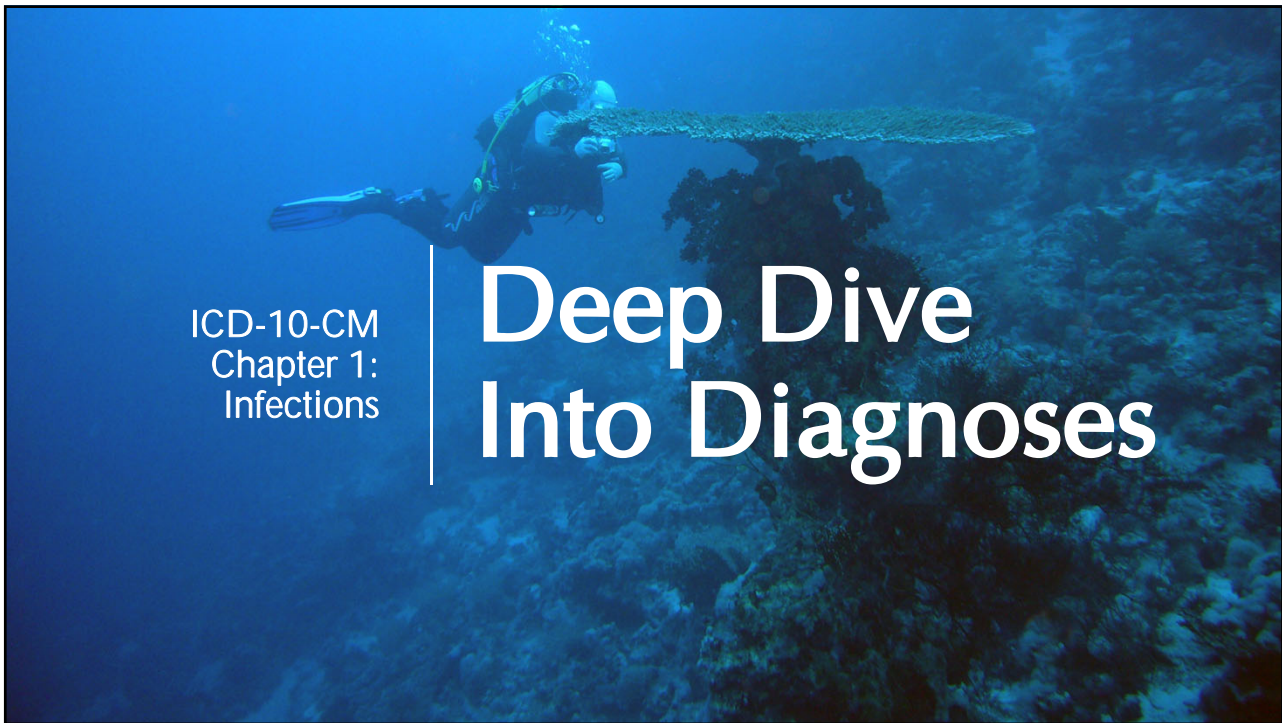




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ICD-10-CM
Chapter 1:
Infections

Deep Dive Into Diagnoses

2

Today's Agenda



● Overview of Correct Diagnosis Coding

○ HIV Coding

○ Coding for Sepsis

○ Coding Scenarios

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TWELVE Step Program to Correct Coding: Steps 1-5

1. Do we need to research anything?
2. What is the main term?
3. Find the main term in the Alphabetic Index
4. Review subterms/essential modifiers. Do any apply to our diagnostic statement?
5. Are there any cross references we are instructed to follow?

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TWELVE Step Program to Correct Coding: Steps 6-10

6. Look up our code from the Alphabetic (E66.01) in the Tabular List
7. Look for instructional notes like Excludes1, Excludes2, Includes, code also, use additional code
8. Does this code require additional characters?
9. Are there any symbols for age or gender appropriateness?
10. Review the subcategory, block and chapter headings for additional instructions



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TWELVE Step Program to Correct Coding: Steps 11-12

11. Where do I look for Endocrine guidelines?
 - a. Section I and Section IV general guidelines apply
 - b. Section I Chapter Specific guidelines apply
 - c. Which chapter? (Hint: What chapter are we looking at in the Tabular?)
12. Assign our final code!



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Chapter 1 —Certain Infections and Parasitic Diseases (A00-B99)

Chapter 1. Certain Infectious and Parasitic Diseases (A00-B99)

INCLUDES: diseases generally recognized as communicable or transmissible
Use additional code to identify resistance to antimicrobial drugs (Z16.-)

EXCLUDES 1: certain localized infections—see body system-related chapters

EXCLUDES 2: carrier or suspected carrier of infectious disease (Z22.-)
infectious and parasitic diseases specific to the perinatal period (P35-P39)
infectious and parasitic diseases complicating pregnancy, childbirth and the puerperium (O98.-)
influenza and other acute respiratory infections (J00-J22)

This chapter contains the following blocks:

A00-A09 Intestinal infectious diseases
A15-A19 Tuberculosis
A20-A28 Certain zoonotic bacterial diseases
A30-A49 Other bacterial diseases
A50-A64 Infections with a predominantly sexual mode of transmission
A65-A69 Other spirochetal diseases
A70-A74 Other diseases caused by chlamydiae
A75-A79 Rickettsioses
A80-A89 Viral infections of the central nervous system
A90-A99 Arthropod-borne viral fevers and viral hemorrhagic fevers
B00-B09 Viral infections characterized by skin and mucous membrane lesions
B10 Other human herpesviruses
B15-B19 Viral hepatitis
B20 Human immunodeficiency virus [HIV] disease
B25-B34 Other viral diseases
B35-B49 Mycoses
B50-B64 Protozoal diseases
B65-B83 Helminthiasis
B85-B89 Pediculosis, acariasis and other infestations
B90-B94 Sequelae of infectious and parasitic diseases
B95-B97 Bacterial and viral infectious agents
B99 Other infectious diseases



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Research: Step One of Correct Coding

What are bacteria and viruses?

Bacteria are single-celled organisms usually found all over the inside and outside of our bodies, except in the blood and spinal fluid.

- Many bacteria are not harmful. In fact, some are beneficial. However, disease-causing bacteria trigger illnesses, such as strep throat and some ear infections.

Viruses are even smaller than bacteria. A virus cannot survive outside the body's cells.

- It causes illnesses by invading healthy cells and reproducing.

http://www.cdc.gov/getsmart/campaign-materials/press_kit/complete_abr_vpk-508.pdf



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Additional Diagnoses Impacted by Infections

- Heart rate, heart conditions
- Diabetes
- Immunocompromised
 - Chemo
 - Systemic Diseases
 - Medications
- Chronic Fatigue Syndrome
- Some behavioral health conditions
- Chronic Kidney Disease



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Immune System Components

- Antibodies
- Neutrophils
- Lymphocytes
 - B Cells
 - phagocytes
 - T Cells
- White blood cell storage
 - Thymus
 - Spleen
 - Tonsils
 - Blood Vessels
 - Lymph Nodes
 - Small Intestine
 - Adenoids



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Infections: A few things to understand

1. Organized by organism, not body area.
2. May require single or multiple codes to fully report the condition.
3. Chapter 1 codes take precedence over codes from other chapters for the same conditions
4. Subterms for organism takes precedence over subterms for site or other subterms.



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Chapter 1 Codes Take Precedence Carefully explore the alphabetic index for proper code assignment

Example: UTI due to candidiasis

If you reference infection, you may arrive at code:

N39.0, Urinary tract infection, site not specified

If you reference candidiasis, you may arrive at code:

B37.49, Other urogenital candidiasis

While both codes may appear appropriate, the **Chapter 1 code (B37.49)** indicates both the organism and the infection.



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Single or Multiple Codes

Combination codes often identify both the condition and the organism.

- J15.212 Pneumonia due to Methicillin resistant *Staphylococcus aureus*
- B26.0 Mumps orchitis

When no combination code exists, two codes are needed to properly report the condition.

- B49 + J99 Bronchomycosis
- B39.9 + H32 Chorioretinitis in histoplasmosis



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Organism vs Site or Other Subterm

Example: Chronic gonococcal cystitis

Reference the main term, cystitis:

Cystitis (exudative)(hemorrhagic)(septic) N30.90

acute N30.00

chronic N30.20

gonococcal A54.01

When subterms for both an organism and a more general qualifier appear at the same level of indentation, the **organism** takes precedence. Therefore, only code A54.01 would be coded for the above example.



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Block B95-B97 Bacterial and Viral Infectious Agents

- **B95** Streptococcus, staphylococcus, and enterococcus as the cause of disease classified elsewhere.
- **B96** Other bacterial agents as the cause of disease classified elsewhere
- **B97** Viral agents as the cause of disease classified elsewhere



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Drug Resistance Z16.-

Code first the infection.

Z16.1- Resistance to beta lactam antibiotics (like amoxicillin)

Z16.2- Resistance to other antibiotics (like vancomycin)

Z16.3- Resistance to other antimicrobial drugs (like Tamiflu)

* If you're not sure which category the drug resistance belongs to, query your clinician.



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Which Chapter 1 conditions risk adjust?

- HIV
- Sepsis, all types
- Chronic viral hepatitis
- Multiple manifestations of specific infectious processes
 - Gonococcal arthritis
 - Varicella myelitis
 - Salmonella pneumonia
 - Candidal esophagitis



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Current UDS Impact for Infectious Conditions

- HIV Screening for ages 15-65
 - Numerator = number of patients who were screened for HIV while 15-65
 - Denominator = number of patients 15-65
- HIV follow-up for patients with their first-ever diagnosis of HIV
 - For those who were first diagnosed with HIV during the measurement period, did they receive follow-up treatment within 30 days?
 - Numerator = number of patients who received follow-up treatment within 30 days of that first-ever diagnosis
 - Denominator = number of patients with first ever diagnosis of HIV between 12/1 of the prior year and 11/30 of the current year



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Healthy People 2030 Measures

- Reduce the rate of deaths due to hepatitis B and C
- Increase the proportion of people who know they have chronic hepatitis B
- Increase the proportion of people who no longer have hepatitis C
- Reduce infections of HPV types through young adult vaccines
- Reduce the rate of hepatitis A, acute hepatitis B and acute hepatitis C
- Continued vaccination efforts



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What is HIV?

- HIV is a virus that attacks the immune system
- Uncurable, but treatable
- Untreated HIV can lead to AIDS (acquired immunodeficiency syndrome)
- Properly treated HIV with careful monitoring may never become AIDS

<https://www.cdc.gov/hiv/basics/whatishiv.html>



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Stages of HIV

- Stage 1 —Acute HIV Infection
 - May or may not experience mild flu-like symptoms
 - Very contagious in this stage
- Stage 2 —Chronic HIV Infection
 - Asymptomatic stage
 - Can transmit HIV
 - HIV meds available to prevent progression
- Stage 3 —AIDS
 - Most severe stage
 - Immune system badly damaged, allowing opportunistic infections
 - May be very infectious
 - Without treatment, live span may be only 3 years



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ICD-10-CM Guidelines Section I

C.1.a HIV

1. **Only confirmed HIV may be coded.**
 - B20 AIDS or HIV disease
2. **Other HIV-related coding options:**
 - Z21 Asymptomatic HIV infection
 - R75 Nonspecific HIV findings
 - Also use for infants with inconclusive HIV test results
 - Z11.4 Screening for HIV
 - Z72.5X Counseling on high-risk sexual behavior (if appropriate)
 - Z20.6 Exposure to HIV or AIDS
 - Z71.7 HIV counseling



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HIV Scenario #1

- 28 yom requests screening for HIV. No known exposures, but does admit to unprotected intercourse with multiple partners of various gender. Specimen obtained, will call with results as he has another appointment to get to.
- Z11.4 and Z72.53
- Same pt as above, returned for test results. Negative findings. Counseled about HIV prevention, including safer sex practices and available PrEP options, will think about it and return when ready to pursue further.
- Z71.7 and Z72.53



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HIV Scenario #1

- ✓ Does any condition here risk adjust, and if so, do we have needed specificity?
- Does any condition here impact UDS quality measures?
 - If yes, is there a performance measure we can use to track progress?
- Does any condition here have a Healthy People 2030 measure associated?
 - If so, are we contributing to success?



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HIV Scenario #2

- HIV positive pt presents for routine follow-up. No concerns today. Hx of hospitalization for CMV 1 year ago, but no illness since then. Refill meds, F/U in 4 months.
- Z21 per chief complaint.
- B20 due to history of CMV infection, regardless of current status.
- Likely on ART, add Z79.899 if appropriate.



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HIV Scenario #2

- ✓ Does any condition here risk adjust, and if so, do we have needed specificity?
- Does any condition here impact UDS quality measures?
 - If yes, is there a performance measure we can use to track progress?
- Does any condition here have a Healthy People 2030 measure associated?
 - If so, are we contributing to success?



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What is MRSA?

- Infection caused by staph bacteria that's become resistant to many antibiotics commonly used to treat staph infections
- Iatrogenic or HA-MRSA
- Community or CA-MRSA
- May appear as an infected pimple at first
 - Fever
 - Warm to touch
 - Pus or fluid filled



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MRSA Risk Factors

HA-MRSA

- Hospitalization
- Invasive medical device
- Long-term care facility resident

CA-MRSA

- Contact sports
- Crowded or unsanitary living conditions
- Men having sex with men
- HIV infection
- IV drug use



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MRSA Guidelines

Section I, C.1.e

1. Selection and sequencing of MRSA codes

(a) Combination codes for MRSA infection

- When a patient is diagnosed with an infection that is due to methicillin resistant *Staphylococcus aureus* (MRSA), and that infection has a combination code that includes the causal organism (e.g., sepsis, pneumonia) assign the appropriate combination code for the condition (e.g., code A41.02, Sepsis due to Methicillin resistant Staphylococcus aureus or code J15.212, Pneumonia due to Methicillin resistant Staphylococcus aureus). Do not assign code B95.62, Methicillin resistant Staphylococcus aureus infection as the cause of diseases classified elsewhere, as an additional code because the combination code includes the type of infection and the MRSA organism.
- Do not assign a code from subcategory Z16.11, Resistance to penicillins, as an additional diagnosis.



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MRSA Guidelines

Section I, C.1.e (cont'd)

(b) Other codes for MRSA infection

When there is documentation of a current infection (e.g., wound infection, stitch abscess, urinary tract infection) due to MRSA, and that infection does not have a combination code that includes the causal organism, assign the appropriate code to identify the condition along with code B95.62, Methicillin resistant Staphylococcus aureus infection as the cause of diseases classified elsewhere for the MRSA infection.



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MRSA Scenario

12-year-old with abscess on the neck due to MRSA

1. Research? abscess
2. Main term? Abscess/MRSA
3. Alphabetic Index? Pg. 5&229
4. Subterms/essential modifiers?
5. Cross references?
6. Tabular List? Pg. 463&734
7. Excludes1, Excludes2, Includes, code also, use additional code? (B95-B97)
8. Additional characters? None
9. Symbols? UPD
10. Block and chapter headings
11. MRSA guidelines?
12. Assign final code!



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MRSA Scenario Q&A

12-year-old with abscess on the neck due to MRSA

- Correct coding for this scenario:
 - ✓ L02.11 Cutaneous abscess of neck
 - ✓ B95.62 Methicillin resistant Staphylococcus aureus infection as the cause of diseases classified elsewhere
- Does any condition here risk adjust, and if so, do we have needed specificity?
- Does any condition here impact UDS quality measures?
 - If yes, is there a performance measure we can use to track progress?
- Does any condition here have a Healthy People 2030 measure associated?
 - If so, are we contributing to success?



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What is Sepsis?



- Per CDC, sepsis is the body's extreme reaction to an infection.
- Without timely treatment, sepsis can quickly lead to tissue damage, organ failure, and even death.
- Those with weakened immune systems, chronic medical conditions, the very young and those over age 65 are more likely to develop sepsis.
- One in three patients who die in the hospital have sepsis.

<https://www.cdc.gov/sepsis/what-is-sepsis.html#:~:text=Sepsis%20is%20the%20body's%20extreme,%2C%20skin%2C%20or%20gastrointestinal%20tract.>



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Stages of Sepsis

- SIRS —Systemic Inflammatory Response Syndrome
 - Temp $>38^{\circ}\text{C}$ or $<36^{\circ}\text{C}$
 - HR >90
 - RR >20
 - WBC within specific parameters
- Sepsis
 - SIRS plus culture-confirmed infection
- Severe Sepsis
 - Sepsis plus organ dysfunction, hypotension or hypoperfusion
- Septic Shock
 - Hypotension (despite fluid resuscitation) plus hypoperfusion

<https://www.medscape.com/answers/169640-99165/what-is-sepsis-and-what-is-its-clinical-progression>



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ICD-10-CM Guidelines Section I

C.1.d Sepsis, Severe Sepsis, and Septic Shock Infections resistant to antibodies

1) Coding of Sepsis and Severe Sepsis

- a) Sepsis —assign A41.9, Sepsis unspecified organism only when the type of infection or causal organism is not further specified
 - Do not assign R65.2, Severe sepsis unless severe sepsis or an associated acute organ dysfunction is documented
 - i. Blood cultures
 - ii. Urosepsis
 - iii. Sepsis with organ dysfunction
 - iv. Acute organ dysfunction that is not clearly associated with the sepsis
- b) Severe Sepsis —2 code requirement (underlying infection & Severe sepsis code)



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ICD-10-CM Guidelines Section I

C.1.d Sepsis, Severe Sepsis, and Septic Shock Infections resistant to antibodies (Cont.)

2) Septic Shock

3) Sequencing of severe sepsis

4) Sepsis or severe sepsis with localized infection

5) Sepsis due to a postprocedural infection

- a) Casual relationship documentation
- b) T81.40 —T81.43, O86.00 —O86.03 (first listed)(site of infection)
T81.44/O86.04 (additional assignment for identifying sepsis following procedure)
- c) Postprocedural infection and postprocedural septic shock (codes indicated above for sepsis due to a postprocedural infection, followed by code T81.12-)



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ICD-10-CM Guidelines Section I

C.1.d Sepsis, Severe Sepsis, and Septic Shock Infections resistant to antibodies (Cont.)

6. Sepsis and severe sepsis associated with a noninfectious process (condition)
 - a) If sepsis or severe sepsis is documented as associated with a noninfectious condition, such as a burn or serious injury, and this condition meets the definition for principal diagnosis, the code for the noninfectious condition should be sequenced first, followed by the code for the resulting infection.
 - b) When a non-infectious condition leads to an infection resulting in severe sepsis, assign the appropriate code from subcategory R65.2, Severe sepsis. Do not additionally assign a code from subcategory R65.1, Systemic inflammatory response syndrome (SIRS) of noninfectious origin.
7. Sepsis and septic shock complicating abortion, pregnancy, childbirth, and the puerperium (See Section I.C.15)
8. Newborn sepsis (See Section I.C.16.f.)



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Sepsis Scenario

Diagnostic Statement: Anaerobic gram-negative sepsis

- | | |
|---|--------------------------------|
| 1. Research? Anaerobic | 8. Additional characters? None |
| 2. Main term? Sepsis | 9. Symbols? None |
| 3. Alphabetic Index? Pg 288 | 10. Block and chapter headings |
| 4. Subterms/essential modifiers? | 11. Sepsis guidelines? |
| 5. Cross references? | 12. Assign final code! |
| 6. Tabular List? Pg 448 | |
| 7. Excludes1, Excludes2, Includes, code also, use additional code? none | |



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Sepsis Scenario Q&A

- Correct coding for this scenario:
 - ✓ A41.50 Gram-negative sepsis, unspecified
- Does any condition here risk adjust, and if so, do we have needed specificity?
- Does any condition here impact UDS quality measures?
 - If yes, is there a performance measure we can use to track progress?
- Does any condition here have a Healthy People 2030 measure associated?
 - If so, are we contributing to success?



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Sepsis Scenario #2 At the Hospital

A 62 yof presents via ambulance for evaluation. She complains of fever, fatigue, muscle and joint pain. She is noted to be tachycardic and dehydrated. The cause of her symptoms is investigated through multiple lab tests. Cultures grew E. coli, BUN 20, random glucose of 155. CXR shows acute pulmonary edema. Pt was treated with IV abx and fluid replacement. On hospital day 4, she is deemed to have reached maximum inpatient benefit and was switched to oral medications and subsequently discharged.

Discharge Dx: Septicemia due to E. coli, dehydration, acute pulmonary edema due to CHF



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Sepsis Scenario #2 Q&A

- Correct coding for this scenario:
 - ✓ A41.51 Sepsis due to E. coli
 - ✓ E86.0 Dehydration
 - ✓ I50.1 Left ventricular failure, unspecified
- ✓ Does any condition here risk adjust, and if so, do we have needed specificity?
- Does any condition here impact UDS quality measures?
 - If yes, is there a performance measure we can use to track progress?
- Does any condition here have a Healthy People 2030 measure associated?
 - If so, are we contributing to success?



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Sepsis Scenario #2 At the Clinic

- 62 yof hospital F/U. Discharged 3 days ago with the following dxs: Septicemia d/t E. coli, dehydration (corrected) and acute pulmonary edema d/t CHF. Since discharge, pt has continued to improve. She is faithfully taking her abx, notes mild digestive upset if she takes them without food. CHF is at baseline, will have her F/U with cardiology sooner than her routine appt. Sepsis has resolved, but urged to continue abx until complete and watch for any signs of returning infection.
- Dx: E. coli infection, continue abx.
CHF, F/U with cardiology in 2 wks, continue current meds



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Sepsis Scenario #2 At the Clinic Q&A

- Correct coding for this scenario:
 - ✓ Z09 Encounter for follow-up examination after completed treatment for conditions other than malignant neoplasm
 - ✓ A49.8 Other bacterial infections of unspecified site
 - ✓ E86.0 Dehydration
 - ✓ I50.1 Left ventricular failure, unspecified
- ✓ Does any condition here risk adjust, and if so, do we have needed specificity?
- Does any condition here impact UDS quality measures?
 - If yes, is there a performance measure we can use to track progress?
- Does any condition here have a Healthy People 2030 measure associated?
 - If so, are we contributing to success?



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What if....

- The E. coli is resolved too? —The next visit



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Sepsis Scenario #3

21 month old female presents with fever, vomiting, evident abd pain. Noted to be severely dehydrated, BUN of 54. Blood cultures show Staph aureus, started IV vanco and fluids.

Diagnosis: Sepsis due to Staph with resultant acute renal failure

Plan: IV Abx, rehydrate, symptom mgmt.



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Sepsis Scenario #3 Q&A

- Correct coding for this scenario:
 - ✓ R65.20 Severe sepsis without septic shock
 - ✓ A41.01 Sepsis due to Methicillin susceptible Staphylococcus aureus
 - ✓ N17.9 Acute kidney failure, unspecified
- ✓ Does any condition here risk adjust, and if so, do we have needed specificity?
- Does any condition here impact UDS quality measures?
 - If yes, is there a performance measure we can use to track progress?
- Does any condition here have a Healthy People 2030 measure associated?
 - If so, are we contributing to success?



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Sepsis Scenario #4

54 yom presents with exquisite abd pain, N/V, fever. Known diverticulitis of both small and large, recent flare. Usually able to manage at home, but pain is getting worse.

Will check CT abd, labs, blood culture, admit for pain control....

Dx: Sepsis due to Enterococcus, found to be due to perforated diverticulitis

Plan: Urgent consult with surgery, infectious disease....



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Sepsis Scenario #4 Q&A

- Correct coding for this scenario:
 - ✓ A41.81 Sepsis due to Enterococcus
 - ✓ K57.40 Diverticulitis of both small and large intestine with perforation and abscess without bleeding
- ✓ Does any condition here risk adjust, and if so, do we have needed specificity?
- Does any condition here impact UDS quality measures?
 - If yes, is there a performance measure we can use to track progress?
- Does any condition here have a Healthy People 2030 measure associated?
 - If so, are we contributing to success?



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