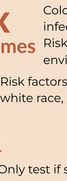
Clostridium DIFFICILE

SUMMARIZING ACG GUIDELINES

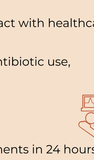
EPIDEMIOLOGY

Colonization is organism presence but without symptoms



4-15% of healthy adults

Up to 21% of hospitalized adults



15-30% of long term care facility residents

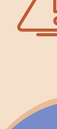
Six times

Colonization at time of hospital admission → 6x risk of *C. difficile* infection (CDI)

Risk factors for healthcare-associated CDI: contact with healthcare environment, age ≥ 65, antibiotic use, and IBD

Risk factors for community-associated infections are antibiotic use, white race, cardiac disease, CKD, and IBD

DIAGNOSIS



Only test if symptomatic → ≥ 3 unformed bowel movements in 24 hours

Two step testing: highly sensitive NAAT or GDH followed by specific toxin EIA
- Nucleic acid amplification testing (NAAT) confirms presence of toxigenic strain but *not* toxin
- Glutamate dehydrogenase (GDH) is an enzyme made by toxigenic & nontoxigenic *Clostridiodes* strains. Positive GDH requires confirmation of toxigenic strain (NAAT or EIA)

Think alternate cause with symptomatic colonization if lack of response to PO Vancomycin in non- severe cases, atypical course, intermittent/non-progressive symptoms without treatment, history alternating constipation, and symptoms more suggestive of post-infectious IBS

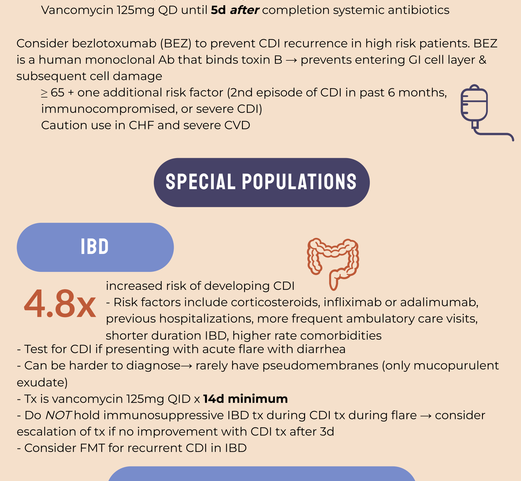
PREVENTION

Enteric precautions for suspected/confirmed CDI

No recommendations for precautions for asymptomatic carriers

NO probiotics for prevention *if* on antibiotics or for recurrence

TREATMENT



PREDICTING POOR OUTCOMES

Severe or fulminant CDI Low albumin FCP >2000

Peripheral eosinophilia or undetectable eosinophils

Fever >38.5°C Pseudomembranes on colonoscopy

SUPPRESSION & PROPHYLAXIS

Recurrent CDI who are not FMT candidates, relapsed after FMT, or require ongoing/ frequent courses of antibiotics should receive long term suppressive PO vancomycin

Consider oral vancomycin prophylaxis (OVP) during subsequent systemic antibiotic use in those with history of CDI and high risk recurrence

Vancomycin 125mg QD until **5d *after*** completion systemic antibiotics

Consider bezlotoxumab (BEZ) to prevent CDI recurrence in high risk patients. BEZ is a human monoclonal Ab that binds toxin B → prevents entering GI cell layer & subsequent cell damage

≥ 65 + one additional risk factor (2nd episode of CDI in past 6 months, immunocompromised, or severe CDI)

Caution use in CHF and severe CVD

SPECIAL POPULATIONS

IBD

4.8x increased risk of developing CDI

- Risk factors include corticosteroids, infliximab or adalimumab, previous hospitalizations, more frequent ambulatory care visits, shorter duration IBD, higher rate comorbidities

- Test for CDI if presenting with acute flare with diarrhea
- Can be harder to diagnose→ rarely have pseudomembranes (only mucopurulent exudate)
- Tx is vancomycin 125mg QID x **14d minimum**
- Do *NOT* hold immunosuppressive IBD tx during CDI tx during flare → consider escalation of tx if no improvement with CDI tx after 3d
- Consider FMT for recurrent CDI in IBD

PREGNANCY, PERIPARTUM, & BREASTFEEDING

- Recommend using vancomycin
- Fidaxomicin *if* vancomycin failure
- Cautious fidaxomicin use & avoid metronidazole in breastfeeding
- Avoid FMT 2/2 procedural risks & lack of data in pregnancy → Can maintain on PO vancomycin and perform FMT postpartum

IMMUNOCOMPROSIED

- 1st line tx: Vancomycin or fidaxomicin
- Organ transplant = **highest** risk CDI
- Screen for CMV & EBV before FMT & if seronegative, consider transmission risk

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Kelly CR, Fischer M, Allegretti JR, LaPlante K, Stewart DB, Limketkai BN, Stollman NH. ACG Clinical Guidelines: Prevention, Diagnosis, and Treatment of Clostridioides difficile Infections. Am J Gastroenterol. 2021 Jun 1;116(6):1124-1147. doi: 10.14309/ajg.0000000000001278. PMID: 34003176.