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SANTA CLARA VALLEY MEDICAL CENTER
Hospital & Clinics

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Gastroenterology Referral Guidelines

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This information is designed to aid practitioners in making decisions about appropriate medical care. These guidelines should not be construed as dictating an exclusive course of treatment. Variations in practice may be warranted based on the needs of the individual patient, resources, and limitations unique to the institutional type of practice.

E-CONSULT DISCLAIMER:

E-consults are based on the clinical data available to the reviewing provider, and are furnished without benefit of a comprehensive evaluation or physical examination. All advice and recommendations must be interpreted in light of any clinical issues, or changes in patient status, not available to the reviewing provider. The ongoing management of clinical problems addressed by the e-consult is the responsibility of the referring provider. If you have further questions or would like clarifications regarding e-consult advice, please contact the reviewing provider. If needed, the patient will be scheduled for an in-office consultation.

All URGENT consultations require provider-to-provider communication. If your patient has a medical emergency, please direct them to the closest emergency room for expedited care.

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ABDOMINAL PAIN, PART I (DYSPEPSIA, EPIGASTRIC PAIN)

1. **Background**
    a. Approximately 30-50% of adults report abdominal pain or discomfort
    b. **GERD/heartburn** is covered in a separate guideline
    c. **Dyspepsia** = upper abdominal pain, discomfort or fullness.
    d. **Functional dyspepsia** = dyspepsia without an underlying organic cause (i.e., no NSAIDs, PUD, GERD, mass, etc.).
        i. **Functional dyspepsia** accounts for 75% of dyspepsia
        ii. Functional dyspepsia is **CHRONIC**, lasting for years for many people
        iii. Functional dyspepsia is heterogeneous and poorly understood
        iv. Causes of functional dyspepsia may include: psychological distress (e.g., anxiety, depression, somatization), H. pylori, diet, or visceral hypersensitivity, among others
    e. **Alarm features** for dyspepsia that may merit an EGD include:
        i. Age ≥ 60 without prior EGD
        ii. Iron deficiency anemia
        iii. Dysphagia
        iv. Melena
        v. Persistent vomiting
        vi. Unintentional weight loss (e.g., 5% of total weight in 6 months)
        vii. First degree relative with upper GI malignancy

2. **Pre-referral evaluation and treatment**
    a. **Step 1: H. pylori stool antigen or breath test** (NOTE: patient needs to be OFF PPI, and antibiotics within 2 weeks of test, otherwise false negative is possible). Can use H2RA up to 48h prior to testing. Alternatively, Check H. pylori antibody if no prior history of H pylori infection (ok to test antibody while on PPI, H2 blocker, or abx)
    b. **Step 2: PPI trial (**4-8 weeks), taken 30 minutes before a meal
    c. **Step 3: Lifestyle modification for possible acid reflux:** (weight loss if BMI > 25, avoidance of late night meals, coffee, tobacco, alcohol other triggers)
    d. **Step 4: CBC, liver tests** within 3-6 months if severe pain or urgent referral
    e. **ASA/NSAIDs?**: Clarify if there is ASA/NSAID use or other medication potentially contributing

f. **IBS or functional dyspepsia medications:** Consider trying dicyclomine, amitriptyline, nortriptyline if concerned for IBS or functional dyspepsia
g. **Imaging**: Consider **UGI contrast study +/- SBFT, CT, Ultrasound, gastric emptying scan prn**
h. **Bloating**: Consider **lactose avoidance** trial for bloating
i. **Constipation**: Consider **miralax** for possible constipation
j. **Prior recommendations:** Review recommendations from prior EGD, GI consult, imaging or PPI trials already obtained by prior PCP

3. **Indications for referral**
    a. H. pylori negative AND failed PPI trial
    b. Possible GI etiology (typically there is an association with meals or bowel movements)
    c. Not already followed by GI (if seen by GI within 1 year, contact clinic GI provider directly—eg via "staff message")

4. **Please include the following with your referral**
    a. PPI response
    b. H. pylori status
    c. Alarm features (see above) if applicable
    d. If urgent request, please specify a particular reason for urgency

ABDOMINAL PAIN, PART II (LOWER ABDOMINAL PAIN)

1. **Background**
    a. GI causes for lower abdominal pain may include constipation, IBS, acute diverticulitis, acute appendicitis, infectious colitis
    b. Non-GI causes include pelvic/gynecological issues, UTI, nephrolithiasis, hernia, musculoskeletal
    c. Colonoscopy is usually NOT helpful for evaluation of isolated lower abdominal pain

2. **Pre-referral evaluation and treatment**
    a. Rule out other non-GI causes as listed above
    b. Consider pelvic or abdominal U/S or CT as indicated
    c. If associated with constipation, trial of fiber (e.g. psyllium husk or benefiber) or laxative (e.g. Miralax)
    d. If associated with diarrhea, please see "Chronic Diarrhea" section for workup

e. If acute, particularly if concerning physical exam, consider CT scan to rule out diverticulitis or appendicitis or evaluation in emergency room

3. **Indications for referral**
    a. Alarm symptoms: blood in stool, significant weight loss, change in bowel movements in a person with age >50
    b. Failed treatment for constipation
    c. Significant symptoms with concern for GI pathology

4. **Please include the following with your referral**
    a. Prior CT findings (especially if referred for diverticulitis)
    b. Prior colonoscopy findings
    c. Presence of any alarm features

ABNORMAL LIVER TESTS

1. **Pre-referral evaluation and treatment for all patients**
    a. **Alcohol cessation counseling**
    b. **Review medication AND supplement list and hold any new or unnecessary products**: prescribed medications, over-the-counter medications, weight loss & energy supplements, non-traditional vitamin products and other complementary and alternative medications)
    c. **Initial work-up:**
        i. CBC, panel 7, LFTs, INR (within 12 weeks of referral)
        ii. Hepatitis B surface antigen
        iii. Hepatitis B core antibody (IgG and IgM)
        iv. Hepatitis B surface antibody
        v. Hepatitis C antibody
        vi. HIV antibody
        vii. Ultrasound abdomen (Complete/upper)
    d. **If initial work-up negative, order:**
        i. Iron panel (including transferrin saturation, ferritin)
        ii. TSH
        iii. ANA
        iv. Anti-smooth muscle antibody
        v. Anti-liver kidney microsomal antibody
        vi. Anti-mitochondrial antibody
        vii. Serum IgG level
        viii. Serum IgA level
        ix. Tissue transglutaminase antibody
        x. Alpha 1 antitrypsin
        xi. Ceruloplasmin (if age < 40)

e. **Suspected NAFLD:**
    i. Co-morbidities often include obesity, HTN, DM, dyslipidemia.
    ii. US often shows hepatic steatosis, but sometimes may not
    iii. PCP should only refer to GI if ALT or AST ≥ 75 U/L. Otherwise, we recommend the following:
        1. Weight loss: 7-10% body weight
        2. Exercise: 30 minutes, 4-5x/week
        3. Diet: reduce calories, reduce high fructose
        4. Co-morbid conditions: Optimize control of HTN, DM2, lipids. Start statin or fibrate as indicated; do not hold lipid lower agents if NAFLD is suspected.

f. **Biliary obstruction (direct bilirubin elevation)**:
    i. If acutely abnormal liver tests, with fevers, chills, leukocytosis, bilirubin > 3, alk phos > 250 U/L, dilated bile ducts on imaging, or significant weight loss, may require ED or urgent care evaluation. Consider direct phone conversation with GI consultant.

g. **Isolated indirect bilirubin elevation:**
    i. No need to refer if it is primarily an indirect bilirubin elevation (likely Gilbert or Crigler-Najjar).
    ii. Consider hemolysis work-up.

h. **Isolated alkaline phosphatase elevation:**
    i. Check GGT and/or bone-specific alkaline phosphatase

i. **Acute severe hepatitis (AST or ALT > 10x ULN)**:
    i. Check HAV IgM, HBV core IgM, HCV RNA, urine tox screen, acetaminophen levels, salicylate levels.
    ii. Contact GI consultant to discuss appropriate setting for evaluation.

2. Indications for referral

a. **Acute severe hepatitis**
b. **Significant** unexplained ALT, AST, alkaline phosphatase, direct bilirubin elevation (typically ALT or AST > 75 U/L, alkaline phosphatase > 2x ULN)
c. **Persistent** unexplained ALT, AST, alkaline phosphatase, direct bilirubin elevation (if AST/ALT < 5x ULN initially, re-check at least 1-6 months after initial blood tests before placing referral).
d. **Significant NAFLD (or NASH) with** AST or ALT ≥ 75 U/L or findings of cirrhosis

3. Please include the following with your referral

a. New or other potential culprit medications/supplements
b. Presence/absence of prior alcohol use (time sober; if applicable)
c. Prior evaluation not available in HealthLink or Care Everywhere

ANEMIA (WITH IRON DEFICIENCY)

1. **Background**
    a. **Iron deficiency without anemia** does not require endoscopy
    b. **Normocytic anemia** with normal iron stores does not necessarily require endoscopy
    c. **Anemia of chronic disease** without other factors does not require endoscopy
    Anemia of chronic disease (ACD) vs iron deficiency anemia (IDA). Use total iron binding capacity (TIBC) and ferritin

    Anemia of chronic disease: low TIBC, high ferritin
    Iron deficiency anemia: high TIBC, low ferritin
2. **Pre-referral evaluation and treatment**
    a. CBC within 3 months of referral
    b. Iron panel with ferritin, Fe, TIBC
    c. Consider Hgb electrophoresis if MCV < 75
    d. Consider Tissue Transglutaminase level and Total IgA level (testing for celiac disease)
    e. Do not send FIT for evaluation of anemia; FIT is approved for asymptomatic, age appropriate colon cancer screening
    f. **Fe therapy**: Start Fe and recheck Fe panel + CBC in 3-6 months; treat until ferritin > 40. Discuss with consultant if anemia persists after 3-6 months of iron.
    g. Consider referral to hematology if multiple cell lines are low or if referral is for IV Fe
    h. **Severe anemia** (e.g. Hgb < 7-8) or rapid decline in hemoglobin, consider RBC transfusion and consider inpatient consultation to ensure evaluation occurs in adequate timeframe
    i. **Urgency**: Systolic BP < 100 or HR > 100 (or significant change from prior chart values), brisk bleeding noted, chest pain, lightheadedness, in the setting of known chronic liver disease, alcohol abuse, patient may need ED evaluation

3. **Indications for referral**
    a. Anemia with low iron stores (eg low ferritin and high TIBC)
    b. Anemia with overt GI blood loss (eg black stools, blood per rectum)

4. **Please include the following with your referral**
    a. Presence/absence of significant vaginal bleeding, epistaxis, hematochezia, melena, hematemesis, recent surgeries, urinary bleeding or other blood loss
    b. Presence/absence of NSAIDs/aspirin, coumadin, plavix, other antiplatelet/antithrombotic use
    c. If urgent request, please specify the particular reason for urgency

BLEEDING (RECTAL BLEEDING OR MELENA)

1. **Background**
    a. **Hemorrhoids** (painless) and **anal fissures** (painful) are common causes of intermittent, small volume blood per rectum. Topical steroid preparations may help if used short term, but may exacerbate symptoms if used for extended periods of time (eg > 7 consecutive days).
    b. **History of Peptic ulcer** does not require GI referral; in most cases, patients with an ulcer complicated by bleeding, h. pylori should be checked by 2 methods (eg serology and stool antigen (OFF PPI therapy for 2 weeks) and eradication confirmed if h. pylori positive. In select instances a surveillance EGD may be recommended by the endoscopist.
    c. **Colon cancer** should be considered with bleeding, but is less common than hemorrhoids—especially when there is a prior colonoscopy
    d. **IBD** patients typically have a change in stool caliber, appearance, and frequency
    e. **Iron pills, bismuth**, and other products can give stool a black color

2. **Pre-referral evaluation and treatment**
    a. CBC within 3-6 months of referral
    b. Fe panel if CBC shows MCV < 80
    c. Consider liver tests, INR
    d. Do NOT send FIT if patient reports overt bleeding
    e. **Hemorrhoids**: Counsel patient to avoid straining. Increase fiber and water intake. Consider sitz bath 2-3 times per day for 10-15 minutes each. If using topical preparations, be sure to use for short duration only. Consider witch hazel pads.
    f. **Urgent**: If relative hypotension for patient or systolic BP < 100 or HR > 100 (or significant change from prior chart values), brisk bleeding noted, lightheadedness, known chronic liver disease, alcohol abuse, consider urgent care/ED evaluation and possible transfusion
    g. Consider whether stool is black due to iron or other ingested substance

3. **Indications for referral**
    a. Unexplained bleeding

4. **Please include the following with your referral**
    a. Presence/absence of prior colonoscopy, EGD
    d. Presence/absence of NSAID, aspirin, coumadin, plavix, other antiplatelet/antithrombotic use

CHRONIC DIARRHEA

1. **Background**
    a. **Diarrhea** = loose, watery stools usually ≥ 3 times per day
    b. **Chronic diarrhea** lasts ≥ 4 weeks
    c. **IBS-D** = Recurrent abdominal pain at least 1x/week, >3 months with at least 2 of the following: related to defecation, change in stool frequency, change in stool form; other causes ruled out.
    d. **Functional Diarrhea** = Chronic loose or watery stools without abdominal pain; other causes ruled out.

2. **Pre-referral evaluation and treatment**
    a. CBC
    b. Panel 7
    c. Liver tests
    d. TSH
    e. Tissue transglutaminase and total IgA
    f. Fecal calprotectin [LAB8199], CRP, and ESR
    g. Fecal elastase
    h. Fecal fat (qualitative, if abnormal consider quantitative)
    i. Consider stool giardia, O/P x3, C diff

3. **Management**
    a. Trial of strict dairy avoidance for 2 weeks if applicable
    b. Trial off any potential medication culprits if applicable
    c. Treatment of any reversible causes (e.g. infection, etc)
    d. If suspect IBS-D, can consider low dose TCA (e.g. Amitriptyline 25->50mg qhs), dietary (low FODMAP), etc.

4. **Indications for referral**
    a. Positive GI workup (celiac disease, pancreatic insufficiency, inflammatory diarrhea not infectious, steatorrhea)
    b. Unexplained chronic diarrhea
    c. Alarm symptoms including hematochezia or melena, nocturnal symptoms, unexplained weight loss, age >50 without prior colonoscopy
    d. **Urgent**: If patient is having > 10 bowel movements per day, frequent passage of bloody stools (with hemorrhoids felt unlikely), inability to tolerate oral intake, tachycardia, hypotension, temp >38.0 strongly consider ED evaluation or direct admission)

5. **Please include the following with your referral**
    a. Duration of diarrhea
    b. Number of stools per day
    c. Any positive laboratory workup
    d. History of prior colonoscopy and biopsies

e. Interventions tried and outcomes

CIRRHOSIS

1. **Background**
    a. Liver cancer is a significant contributor to mortality among patients with cirrhosis. Up to date screening/surveillance for HCC is crucial.
    b. APRI and FIB-4 are calculators which use lab tests to predict likelihood of cirrhosis. See: **http://www.hepatitisc.uw.edu/page/clinical-calculators/apri**
    c. Platelet count < 150, elevated INR, low albumin, splenomegaly, and a nodular liver should raise concern for possible cirrhosis
    d. Transplant candidates should be abstinent from alcohol ≥ 6 months, have 1-2 support persons, and have health insurance to qualify.

2. **Pre-referral evaluation and treatment**
    a. CBC, Chem7, LFTs, INR
    b. Hepatitis A IgG
    c. Hepatitis B surface antigen
    d. Hepatitis B core antibody (IgM and IgG)
    e. Hepatitis C antibody
    f. HCV RNA with reflex to genotype (if HCV Ab positive)
    g. HCV genotype (if HCV RNA positive)
    h. HIV antibody
    i. Transferrin saturation and ferritin
    j. TSH
    k. ANA
    l. Anti-smooth muscle antibody
    m. Anti-mitochondrial antibody (if mostly alkaline phosphatase elevation)
    n. Serum IgG level
    o. Alpha -1-antitrypsin
    p. Ceruloplasmin (if age < 40)
    q. Ultrasound abdomen (COMPLETE/UPPER for initial US and then “HCC screen” abd US every 6 months after that); note if it has been ≥ 3 months since last US or CT, please order a repeat ultrasound since cirrhotic patients need US every 6 months and there is about a 3 month wait time for US.
    r. Management by PCP while waiting for GI appointment:
        i. Alcohol cessation counseling
        ii. HCC screening: “HCC screen” ultrasound every 6 months (see above)
        iii. Ascites:

1. 2000 mg/day sodium restriction, monitor weight at home
2. Consider Lasix 20 mg once daily and spironolactone 50 mg once daily if potassium is in normal range or elevated. Consider spironolactone 50 mg monotherapy if potassium is ≤ 3.5 mmol/L
3. SBP prophylaxis:
    a. Confirmed prior case of SBP
    b. Cirrhosis with ascitic fluid protein < 1.5 g/dL PLUS either:
        i. Renal impairment (Cr ≥ 1.2, BUN ≥ 25 or Na ≤ 130)
        ii. Liver failure (CTP ≥ 9 or Bilirubin > 3)

iv. Encephalopathy: Consider lactulose; titrate to 2-3 BMs/day
v. Acetaminophen is preferred over NSAIDs for pain control; maximum of up to 2000 mg/day in cirrhotic patients

3. Indications for referral

a. Imaging suggestive of cirrhosis
b. APRI or FIB-4 score consistent with cirrhosis or advanced fibrosis

4. Please include the following with your referral

a. Alcohol/substance abuse history
b. Presence of varices, ascites, hepatic encephalopathy, HCC or other decompensating events

COLON CANCER SCREENING AND COLON POLYP SURVEILLANCE

1. Background

a. For average risk screening at VMC, annual FIT should be used
b. **Average risk** = absence of family history of EARLY (age < 60) colon cancer or adenomatous polyps; or absence of IBD, FAP, hereditary nonpolyposis colon cancer (HNPCC) or increased risk of HNPCC
c. **Increased risk = personal history of polyps/cancer**
d. **Instructions for family history** of polyps or cancer is found below

2. Pre-referral evaluation and treatment

a. General
    i. **Age 50-75** with life expectancy of ≥ 10 years: screen
    ii. **Age 76-85:** Carefully select certain pts, considering comorbidities, patient's health goals/preferences, prior evaluation
    iii. **Blacks**: start screening at age 45

iv. **Age < 50:** The United States Preventive Services Taskforce (USPSTF) and the US Multi-Society Task Force on Colorectal Cancer (MSTF) do not recommend average risk starting before age 50 (aside from blacks), despite the American Cancer Society's limited consideration in this age range.
v. **Age > 85**: Generally stop screening unless pts are in good health with long life expectancy and pts are eager for screening and/or have undergone colonoscopy with previously found adenomatous or serrated polyps.
vi. **Consider tolerance of moderate sedation, ability to swallow a 4 liter bowel preparation, and lie in left lateral decubitus position for extended period of time**

b. **Direct access colonoscopy:**
   i. For fairly healthy, uncomplicated patient with FIT performed for asymptomatic colon cancer screening OR personal history of colon cancer/ documented adenomas. No clinic referral is needed, simply enter a "colonoscopy" order (can type "colonoscopy" or simply type "GI6")

3. Indications for referral

a. Positive FIT (See FIT positive referral criteria)
b. **<u>Family history of cancer</u>**
   i. **ONE 1st-degree** relative diagnosed **age < 60:**
      1. colonoscopy at age 40 or 10 yrs before relative diagnosed
      2. Repeat colonoscopy ≤ 5 years
   ii. **TWO 1st-degree** relatives diagnosed, **any age**
      1. Same as above
   iii. **ONE 1st-degree** relative diagnosed **age ≥ 60**
      1. FIT at age 40. Repeat annually
   iv. **TWO 2nd-degree** relatives diagnosed, any age
      1. FIT at age 40. Repeat annually
   v. **3rd-degree** relatives (eg cousins, great grandparents)
      1. Generally not relevant; consider as average risk, see below
   vi. **Three or more relatives with colon cancer**:
      1. **Genetics referral** reasonable
c. **<u>Family history of colon polyps</u>**
   i. As of the 2017 Multisociety Taskforce on Colorectal Cancer guidelines, family history of colon adenomas (also known as "precancerous" polyps) in a 1st degree relative is no longer an indication for more aggressive screening or use of colonoscopy.

ii. **Documented 1st-degree relative with an "advanced adenoma" age < 60**: colonoscopy at age 40 or 10 yrs before relative diagnosed
iii. **Documented 1st-degree relative with an "advanced adenoma" at age ≥ 60**: FIT at age 40, repeat annually
iv.

d. **<u>Personal history of polyps</u>**
   i. **Direct access colonoscopy NOT available if prior colonoscopy + pathology result not available.**
   ii. **Poor bowel prep**: repeat colonoscopy < 12 months
   iii. Piecemeal resection of a polyp: 3-6 months
   iv. Advanced adenoma (tubulovillous, 1cm size, high grade dysplasia): 3 yrs
   v. ≥ 3 adenomas: 3-5 yrs
   vi. 1-2 adenomas: 7-10 yrs
   vii. Serrated polyps: 5-10 yrs (depends on size, type)
   viii. Hyperplastic polyp: annual FIT 10 years after colonoscopy
   ix. Polyp findings on penultimate colonoscopy also influence intervals

4. **Please include the following with your referral**
   a. Prior colonoscopy + pathology report (if outside VMC)—**<u>scan into Media section of Healthlink</u>**
   b. Which family members (and approximate age) if referral for family history
   c. Reason patient is not appropriate for direct access colonoscopy
   d. Actual FIT (or other stool test) result (if outside VMC)

DIRECT ACCESS COLONOSCOPY

1. **Background**
   a. For fairly healthy, uncomplicated patient with FIT performed for asymptomatic colon cancer screening OR personal history of colon cancer/ documented adenomas. No clinic referral is needed, simply enter a "colonoscopy" order (can type "colonoscopy" or simply type "GI6"). Subject to review by GI division.

2. **Pre-referral evaluation and treatment**
   a. Eligible conditions: positive FIT, hematochezia in pt age > 45, prior colon polyps/cancer, family history of colon cancer (see eligible family history below)
   b. Family history
      i. **1 first-degree** relative diagnosed **age < 60:**
         1. Colonoscopy at age 50 or 10 yrs before relative diagnosed
         2. Repeat colonoscopy ≤ 5 years

ii. **2 first-degree** relative diagnosed, **any age**
    1. Same as above

c. Exclusion criteria (absolute)
    i. BMI ≥ 35
    ii. Age ≥ 75
    iii. Significant GI/Liver conditions
    iv. Antiplatelet/Antithrombotic agents (other than ASA 81mg)
    v. Unable to consent
    vi. Life expectancy < 5 yrs
d. Exclusion criteria (relative)
    i. If diagnosis is mild or remote, indicate and GI division with triage
    ii. If diagnosis is moderate or there are several mild conditions, consider clinic referral rather than direct access colonoscopy
    iii. Conditions:
        1. Pulmonary disease
        2. Cardiac disease
        3. Hematologic/oncological disease
        4. Gastrointestinal disease
        5. Sedation problems/substance abuse
        6. Neurologic disease
        7. Renal disease
        8. Conserved/mentally disabled

3. Indications for referral

a. Positive FIT
b. History of adenomatous or serrated polyps
c. History of colorectal cancer
d. Family history of colon cancer or adenomatous polyps (see above)
e. Hematochezia in pt age > 45

4. Please include the following with your referral

a. Accurate responses to colonoscopy order questions

FECAL TRANSPLANT

1. Background

a. Fecal Microbiota Transplantation (FMT) is an investigational therapy that involves infusion of donor stool to the recipient colon to recapitulate a healthy microbiome.
b. *Clostridium difficile* infection (CDI) can arise in susceptible patients as a result of colonic microbiome disruption (e.g., after a course of antibiotics).
c. FMT is a safe and efficacious treatment for recurrent *C. difficile* infection that may be superior to antibiotics alone.

2. **Pre-referral evaluation and treatment**
    a. CBC
    b. CMP
    c. Confirmation of CDI (meets all criteria below):
        i. C difficile NAAT positive OR positive multistep algorithm (GDH plus toxin, arbitrated by NAAT)
        ii. Diarrhea (≥ 3 loose or watery stools per day for at least 2 consecutive days)
    d. Consider HIV, Urine pregnancy testing in susceptible individuals
    e. Patients meeting referral criteria below should be started on a PO Vancomycin taper by the time of referral:
        i. Vancomycin 125mg PO QID x 10-14d, then 125mg PO BID x 7d, then 125mg PO daily x 7d, then 125mg PO every 2 days x 14d

3. **Indications/Contraindications for referral**
    a. Patients currently with their third or more episode of documented CDI (i.e. at least second CDI recurrence)
    b. NOT Pregnant
    c. NO use of antibiotics other than for treatment of CDI at baseline
    d. NO decompensated liver cirrhosis
    e. NO toxic megacolon or ileus present
    f. NO compromised immunity defined by
        i. Recent chemotherapy (within 6 weeks) or continued neutropenia
        ii. Any prior bone marrow or solid organ transplantation
        iii. HIV infection with CD4 < 240
        iv. Prolonged use of prednisone at an equivalent dose of 60mg per day

4. **Please include the following with your referral**
    a. Dates of prior lab-confirmed CDI and treatments used
    b. Alcohol/substance abuse status
    c. Patient's housing status (i.e. SNF, homeless, housed, etc.)

FIT POSITIVE

1. **Background**
    a. FIT is generally not recommended for testing in clinical scenarios other than age-appropriate (generally age 50-75), asymptomatic colon cancer screening

b. FIT tests specifically for COLONIC bleeding (not stomach or small intestinal bleeding)
c. **In patients with overt (red or maroon blood visualized by a patient), checking a FIT is NOT required and is actually NOT recommended**, simply refer to GI clinic for bleeding. FIT will merely be an additional inconvenience for the patient and additional cost.

2. **Pre-referral evaluation and treatment**
    a. If patient is symptomatic or has other GI issues, please document in clinic referral
    b. CBC within 3 months if there is significant weight loss, colon mass on imaging, new onset (< 6-12 months) of significant GI signs or symptoms (eg diarrhea, constipation, blood per rectum, abdominal pain, or microcytic anemia)
    c. **Direct access colonoscopy:**
        i. For fairly healthy, uncomplicated patient with FIT performed for asymptomatic colon cancer screening OR personal history of colon cancer/ documented adenomas. No clinic referral is needed, simply enter a "colonoscopy" order (can type "colonoscopy" or simply type "GI6")

3. **Indications for referral**
    a. Positive FIT AND no previous high quality colonoscopy
    b. Positive FIT that is found in a patient who has already had a colonoscopy and is not due for colon cancer screening yet (per recommendation most recent colonoscopy report) will be reviewed on a case-by case basis.
    c. (High quality colonoscopy includes: complete exam to the cecum with good quality bowel prep).

4. **Please include the following with your referral**
    a. Actual FIT/stool test result (if done outside VMC)
    b. Prior colonoscopy + pathology reports

GERD

1. **Background**
    a. **Heartburn** = substernal burning sensation
    b. **Regurgitation** = effortless flow of stomach contents backward into mouth
    c. **GERD** =Troublesome reflux of stomach contents into the esophagus—usually heartburn or regurgitation
    d. **Dyspepsia** = upper abdominal pain or discomfort (majority of cases not related to GERD)

e. GERD can typically be managed with lifestyle change and daily PPI.
f. **PPI use**: After about 8 weeks of PPI, patient can try to stop or reduce PPI to the lowest dose that controls symptoms. Consider use of H2 blocker if needed.

2. **Pre-referral evaluation and treatment**
    a. **PPI trial (**8 week), taken 30-60 minutes before a meal (breakfast)
    b. **Lifestyle modification (possible acid reflux):** (weight loss if BMI > 25 and/or recent weight gain, head of bed elevation, avoidance of late night meals (within 3 hrs of lying down), avoidance of food triggers specific to patient rather than routine global avoidance)
    c. Query **alarm features** such as dysphagia, melena, significant unintentional weight loss

3. **Indications for referral**
    a. Heartburn with inadequate response to lifestyle change and daily or BID PPI taken 30-60 minutes before meals x 8 weeks
    b. Presence of alarm symptoms
    c. American Gastroenterology Association recommends against screening general population with GERD for Barrett's esophagus. Only patients with **multiple** risk factors for esophageal adenocarcinoma (age > 50, male, white ethnicity, chronic GERD, hiatal hernia, elevated BMI, and central obesity, family history of Barrett's or esophageal cancer) should be considered for EGD screening
    d. For patients with known Barrett's esophagus desiring surveillance, EGD surveillance schedule:
        i. No dysplasia: 3-5 years
        ii. Low grade dysplasia: 6-12 months if untreated
        iii. High grade dysplasia: 3 months if untreated
        *Low and high grade dysplasia should be referred to GI clinic

4. **Please include the following with your referral**
    a. Specific GERD symptoms (e.g. heartburn), duration of symptoms, response to PPI trial (dose, duration), alarm symptoms
    b. Prior EGD + pathology results

HEPATITIS B

1. **Background**

a. There are different stages of chronic hepatitis B. Not all patients require treatment.
    i. **Immune tolerant**: HBeAg positive, normal ALT, HBV DNA > 1 million IU/mL
    ii. **Inactive**: HBeAg negative, normal ALT, HBV DNA < 2,000 IU/mL
    iii. **Active**: HBeAg positive, elevated ALT, HBV DNA > 20,000 IU/L
    iv. **Reactivation**: HBeAg negative, elevated ALT, HBV DNA > 2,000 IU/mL
    v. **HBV flare**: Rise in ALT > 5x plus rise in HBV DNA (usually rise of 2 log IU from baseline), often triggered by immunosuppression

2. Pre-referral evaluation and treatment

a. Blood tests
- CBC, chem 7, LFTs, INR
- Hepatitis A IgG
- Hepatitis B surface antigen
- Hepatitis B e Antigen and Antibody
- HBV DNA PCR
- HCV antibody
- HIV antibody

b. Imaging: US abdomen ("complete/upper") within 1 year of referral date

3. Indications for referral to GI Clinic

a Hepatitis B e Antigen **positive**

- Refer to GI if: **HBV DNA > 20,000 IU/mL** and ALT > 25 U/L for women and > 35 U/L for men
- Manage in Primary Care Clinic if: HBV DNA < 20,000 IU and ALT ≤ 25 U/L for women and ≤ 35 U/L for men (see below)

b. Hepatitis B e Antigen **negative**

- Refer to GI if: **HBV DNA > 2,000 IU/mL** and ALT > 25 U/L for women, > 35 U/L for men
- Manage in Primary Care Clinic if: HBV DNA < 2,000 IU and ALT ≤ 25 U/L for women, ≤ 35 U/L for men (see below)

4. Primary Care management of chronic inactive hepatitis B

a. Hepatitis B e Antigen **positive**:

- If HBV DNA PCR is < 20,000 IU/mL and ALT < 25 U/L for women and < 35 U/L for men, check HBV DNA PCR and ALT every 6 months indefinitely and refer to GI if above referral indications are met.
- - If HBV DNA PCR is < 20,000 IU/mL and ALT > 25 U/L for women and > 35 U/L for men, rule out other causes of liver damage, check HBV DNA PCR and ALT every 3 months for 1 year

and refer to GI if referral indications are met. If there is no indication to refer after 1 year, decrease frequency of lab testing to every 6 months.
If HBV DNA PCR is > 20,000 IU/mL and ALT < 25 U/L for women and < 35 U/L for men, check HBV DNA PCR and ALT every 3 months for 1 year to ensure that ALT remains low. Refer to GI if referral indications are met. If there is no indication to refer, decrease frequency of lab testing to every 6 months after 1 year.

b. Hepatitis B e Antigen **negative**

- If HBV DNA PCR is < 2,000 IU/mL and ALT < 25 U/L for women and < 35 U/L for men, check HBV DNA PCR and ALT every 6 months indefinitely and refer to GI if referral indications are met.
- If HBV DNA PCR is < 2,000 IU/mL and ALT > 25 U/L for women and > 35 U/L for men, rule out other causes of liver damage, check HBV DNA PCR and ALT every 3 months for 1 year and refer to GI if referral indications are met. If there is no indication to refer after 1 year, decrease frequency of lab testing to every 6 months.
- If HBV DNA PCR is > 2,000 IU/mL and ALT < 25 U/L for women and < 35 U/L for men, check HBV DNA PCR and ALT every 3 months for 1 year to ensure stability and refer to GI if referral indications are met. If there is no indication to refer after 1 year, decrease frequency of lab testing to every 6 months.

c. HCC screening: Order “HCC screen” abd US every 6 months if patient meets any of the following criteria:

- Cirrhosis
- Family history of HCC
- Asian female > 50 years of age
- Asian male > 40 years of age
- African person > 20 years of age

d. Other management

- Monitor for the development of cirrhosis
- Vaccinate against hepatitis A if not immune
- Counsel about means of transmission and preventive measures
- Alcohol abstinence
- Educate patient: https://www.cdc.gov/knowhepatitisb/materials.htm#eng-factsheets

HEPATITIS C

1. **Background**

a. Chronic HCV is usually slowly progressive
b. In many patients, no clinically apparent liver disease will develop
c. In 5-30% of patients, after 20-30 years, HCV will cause cirrhosis

2. Pre-referral evaluation and treatment

a. CBC
b. Panel 7
c. LFTs
d. INR
e. HCV antibody
f. HCV RNA
g. HCV genotype
h. Hepatitis B surface antigen
i. Hepatitis B core antibody
j. Hepatitis B surface antibody
k. HIV antibody
l. Iron panel
m. TSH
n. ANA
o. Ceruloplasmin (if patient age < 40 years)
p. Ultrasound abdomen (“complete or upper”)

3. Indications for referral

a. Cirrhosis seen on imaging or symptoms of cirrhosis sch as ascites, variceal bleeding or encephalopathy
b. Any patient who is interested in antiviral treatment who also meet the following criteria:
    i. Life expectancy of more than 12 months
    ii. Patient is likely to adhere to treatment and follow-up visits
    iii. No or minimal alcohol use (≤ 3 drinks per week)
    iv. Patients may have active drug use, but must display a marker of adherence that shows that the patient will remain compliant throughout the duration of treatment (usually 8-12 weeks). For example, if the patient is employed, has routine medical or psychiatric or group counseling visits that he adheres to, has caretaking responsibilities, etc.)

4. Please include the following with your referral

a. Prior treatment history
b. Alcohol/substance abuse status

Revisions:

- January 2017, formatting and content
- May 2017, content
- Oct 2017, formatting
- August 2018, content (Hepatitis C treatment guidelines)
- January 2020, content (Addition of FMT)
- September 2020 (Liver, Anemia, CRC changes)