Acute GI Bleeding: Evaluation and Management

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Acute GI Bleeding: Evaluation and Management

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Objectives

1. Define the skilled care residents who are at risk for an acute GI bleed

2. List strategies for assessing and monitoring for acute GI bleed

3. Describe features that would result in a transfer to the hospital for a skilled rehab resident with a possible or confirmed GI bleed

What is the Best Approach in This Situation?

91 yo woman with recent covid 19 pneumonia and acute respiratory failure with prolonged hospital stay of 12 days. Admitted to SNF for deconditioning and continued respiratory management.

Medical conditions:

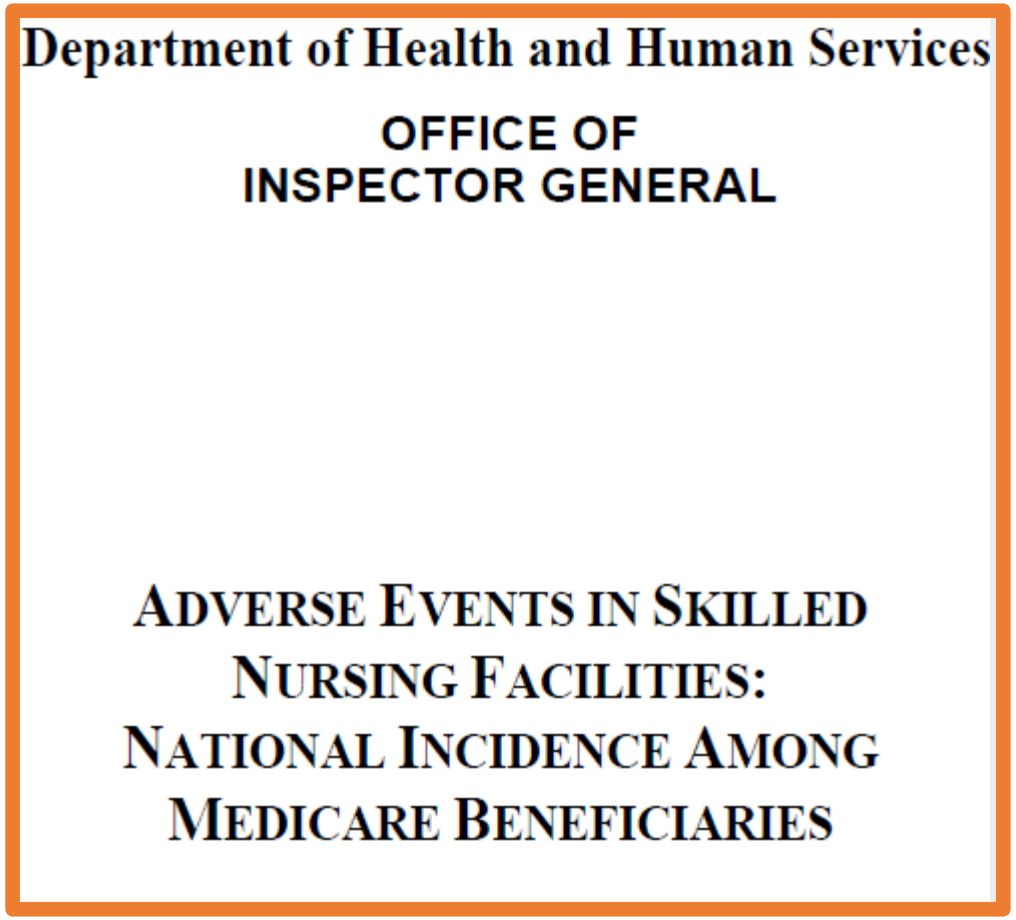
- Diabetes
- Sarcopenic obesity
- COPD
- Mild cognitive impairment
- Hypertension
- Crohn’s Colitis
- Chronic back pain

Medications:

- Tylenol ATC
- Ibuprofen PRN
- Albuterol PRN
- Symbicort
- Amoxicillin for 3 days more
- Metformin
- Aspirin
- Metoprolol
- Entocort

Adverse Events in SNF

- 22% experience adverse event
- Another 11% had temporary harm
- 59% were preventable
- 2011 cost $208 million
- Second most common medication-related reason was excessive bleeding 5%



Aging of Gastrointestinal Organs[1]

- GI complaints very common in elders
- 35%-40% of adults > 60 (~50 million) present with GI symptoms annually
- GERD and constipation are the most common diagnoses, but many complaints go undiagnosed
- Small bowel shows only minor alteration in motility (dysrhythmia), no effect in absorption
- Colon function unchanged in pure aging

Merck Manual Effects of Aging on Digestive System Michael Bartel Oct 2022

Aging of Gastrointestinal Organs - GERD

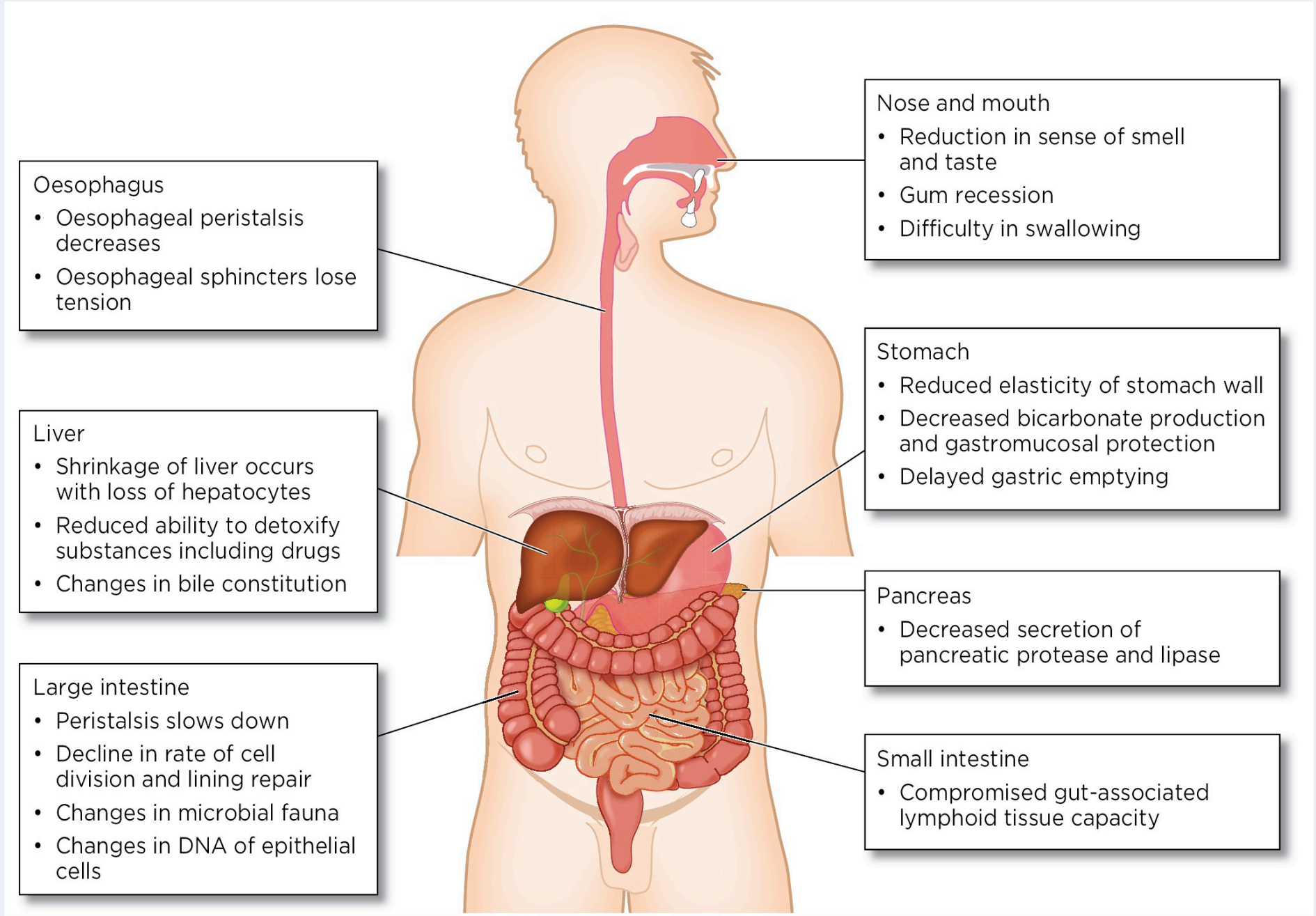
- GERD is most common UGI disorder in elders (40% of NH residents), even though H. pylori incidence waning, but no causality proven
- Elders: most path, but fewer symptoms – water brash
- Complications: CA, erosion, stricture, Barrett's
- Atypical chest pain mistaken for cardiac, lung
- Therapeutic trial: 8 weeks PPI 30-60 min before meals; if no response, endoscopy
- Also weight loss, stop smoking, no eating before sleep
- Rx same as in young, but symptom relief maybe not best marker of progress

Aging of GI Organs – Hepatic Function

- First pass clearance ↓ - decline in blood flow with age
- Metabolism
  - + Phase I – cytochrome microsomal enzyme-mediated deoxidization, hydroxylation and phosphorylation all decline (e.g., warfarin, long-acting benzodiazepines, most psychoactive agents) ↑
  - + Phase II - conjugation (glucuronidation, sulfation), acetylation little change (lorazepam)
  - + Smoking stimulates clearance of many drugs - ↓ therapeutic efficacy, especially phase I

Plasma and tissue levels usually increased, and demand dose reduction, especially for phase I agents

Fig 1. **Age-related changes to the gastrointestinal tract**



Nursing Times 3/2017
Source: Peter Lamb

GI - Medication Effects

- Slower gastric emptying
  - Increased risk of ulceration from NSAIDS, bisphosphonates, or potassium chloride tablets

- ↓ serum albumin
  - Higher serum concentration of albumin-bound medications
  - Lower doses needed (ex: warfarin)

Pharmacodynamics

- Elderly may have exaggerated susceptibility to drugs
    - Warfarin
        - Maintenance doses often lower than in younger patients
    - NSAIDs
        - Increased susceptibility to GI hemorrhage and renal toxicity

The Beers Criteria

- Dr. Beers (geriatrician) created first criteria in 1991
- Medications where risks > potential benefits for people ≥ 65 yrs
- Published in 1991, and updated in 1997, 2003, and 2012, 2015, and 2019 – 2022 update still pending
- Based on a consensus panel of experts
- Available on iGeriatrics app

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Journal of the
American Geriatrics Society

SPECIAL ARTICLE

American Geriatrics Society 2023 updated AGS Beers Criteria® for potentially inappropriate medication use in older adults

By the 2023 American Geriatrics Society Beers Criteria® Update Expert Panel

- Aspirin for primary prevention of cardiovascular disease not recommended - consider d/c
- Warfarin is not recommended for anticoagulation over DOAC (preferably Apixaban due to being less renally dependent for clearance) - consider discussing switch
- Avoid rivaroxaban for anticoagulation due to higher risk of bleeding in the elderly compared to other DOAC – consider switching
- Avoid anti-inflammatory (non-Cox 2 inhibitors – ibuprofen) – special notice of indomethacin and ketorolac with acute kidney injury

AGS Beer's List - A Note on PPI's

- PPI's have a bad rap!
- They recommended increasing their rationale for limiting long-term use of PPI
  - Increased risk of pneumonia, gastric/esophageal malignancies
  - Increased risk of C Difficile
  - Increased bone loss
  - Increased risk of fractures
- Risk: benefit analysis important for deciding to start/continue PPI or use alternative H2 Blockers.

Who is at Risk?

UPPER

- Being on any anticoagulant
- Being on anti-inflammatory, non-cox2 inhibitors mostly
- Being on prednisone – high dose and prolonged periods of time
- High risk of gastritis (surgery, prolonged ICU stay) and not on acid reducers
- Sudden stoppage of PPI – get rebound increase in acid production
- Hx of gastric esophagitis/ulcer/cancer
- Hx of liver cirrhosis and esophageal varices
- Recent procedure

LOWER

- Hx of diverticulitis
- Hx of (or active) severe colitis
- Hx of vascular abnormalities
- Hx of ischemic colitis (or severe vasculopathy at risk for ischemic colitis) – usually have post-prandial abdominal pain
- Known or unknown colon cancer
- Recent procedure or surgery (abdominal, colonoscopy)

What are Signs of Potential GI Bleed?

Dizziness or fainting
fatigue or weakness
paleness
shortness of breath

UPPER	LOWER
• Nausea • Vomiting of coffee grounds or bloody emesis	• Severe lower abdominal pain or cramps • Hematochezia – bright red blood per rectum • Melena – black or tarry stools

Differential Diagnosis

UPPER	LOWER
• Mouth bleeding (trauma, bleeding gums, etc.) • Nose bleed • Pulmonary bleed • Food (beets, coffee, etc.)	• Hemorrhoidal bleed • Anal fissure • Vaginal bleed • Prolapsed vagina • Urinary bleed • Skin/vulva

What are Signs of Serious Emergency Situations? When to call 911?

- Altered level of consciousness – lethargy or unconsciousness
- Altered vital signs – hypotension (don’t forget relative hypotension), tachycardia
- Significant amount of bright red blood in vomitus or stool
- OB positive of large amounts of coffee ground like emesis
- Severe abdominal pain or rigidity
- Significant drop in hemoglobin/hematocrit (stat labs)
- Little or no urination
- Cool clammy skin

When to Hold Anticoagulants: Risk: Benefit Analysis

Bleeding
Readmission
Hospital transfer

DVT prophylaxis
Stroke prevention
Etc.

When Can You Manage Them at the facility?

- Vitals are stable
- Resident alert and at baseline mentation
- Small amount of blood in emesis or per rectum
- Appears to be chronic

What to do?

- Monitor vitals more frequently
- Record urine output more accurately
- Create plan of care and communicate with team concerns
- Stat labs and frequent rechecking
- Place IV - just in case
- Review medications - ?stop anticoagulants

Conclusions – Take Home Points

- Identify high risk patients or on high-risk medications
- If suspect GI Bleed, assess if acute vs chronic and if needs ED transfer or can be managed in the facility
- Review medications closely that might put person at risk, (e.g., asa, warfarin and dabigatran)