

An Approach to Gastrointestinal Bleeding

Dr Tan Yunrong
Upper Gastrointestinal Trainee
General Surgeon
Sultanah Aminah Hospital Johor Bahru

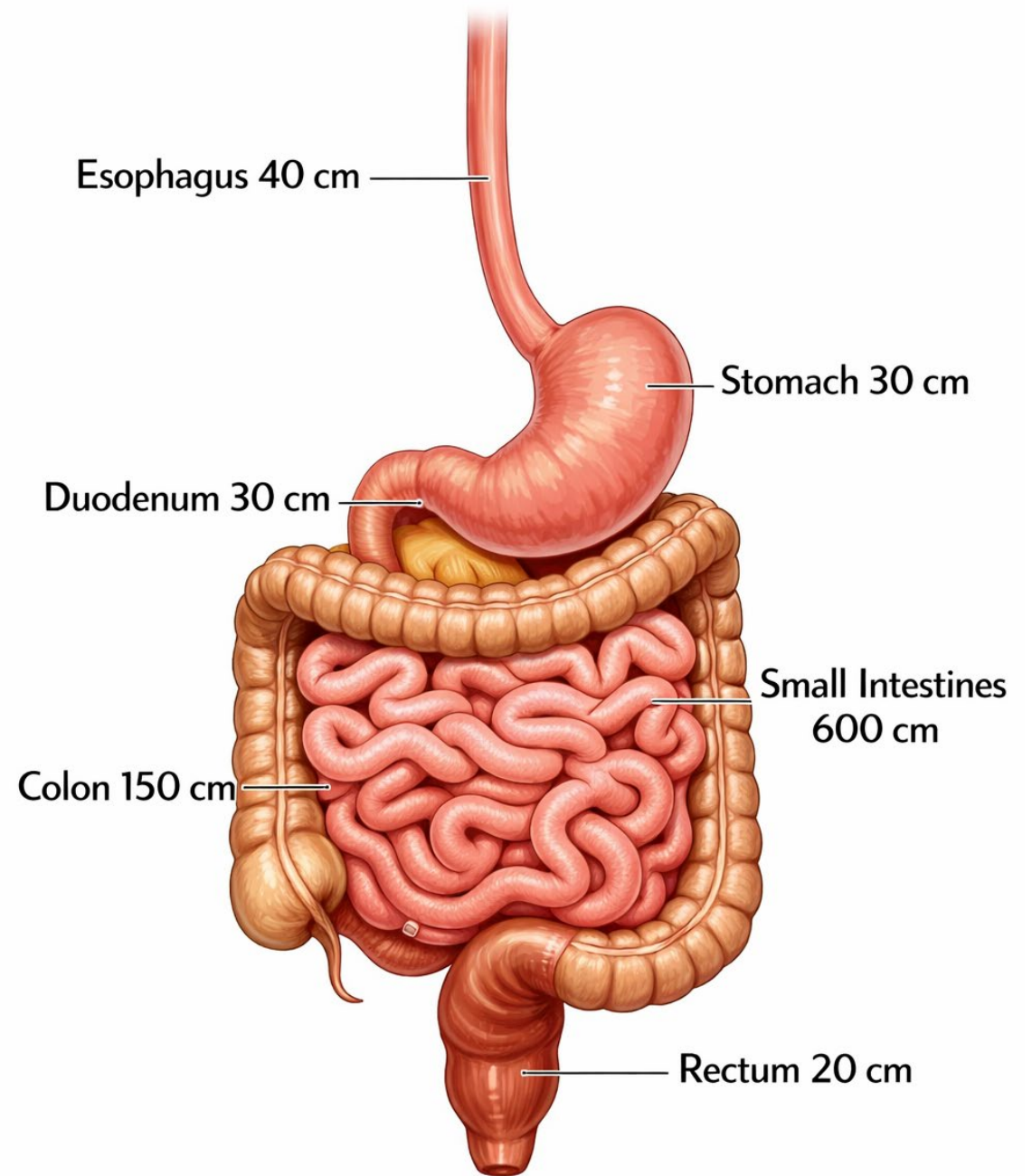
Objective

- To provide overview on the approach to Gastrointestinal bleeding
- To address certain nuances and discrepancies of terminologies used
- To give you a better practical understanding on Gastrointestinal bleeding

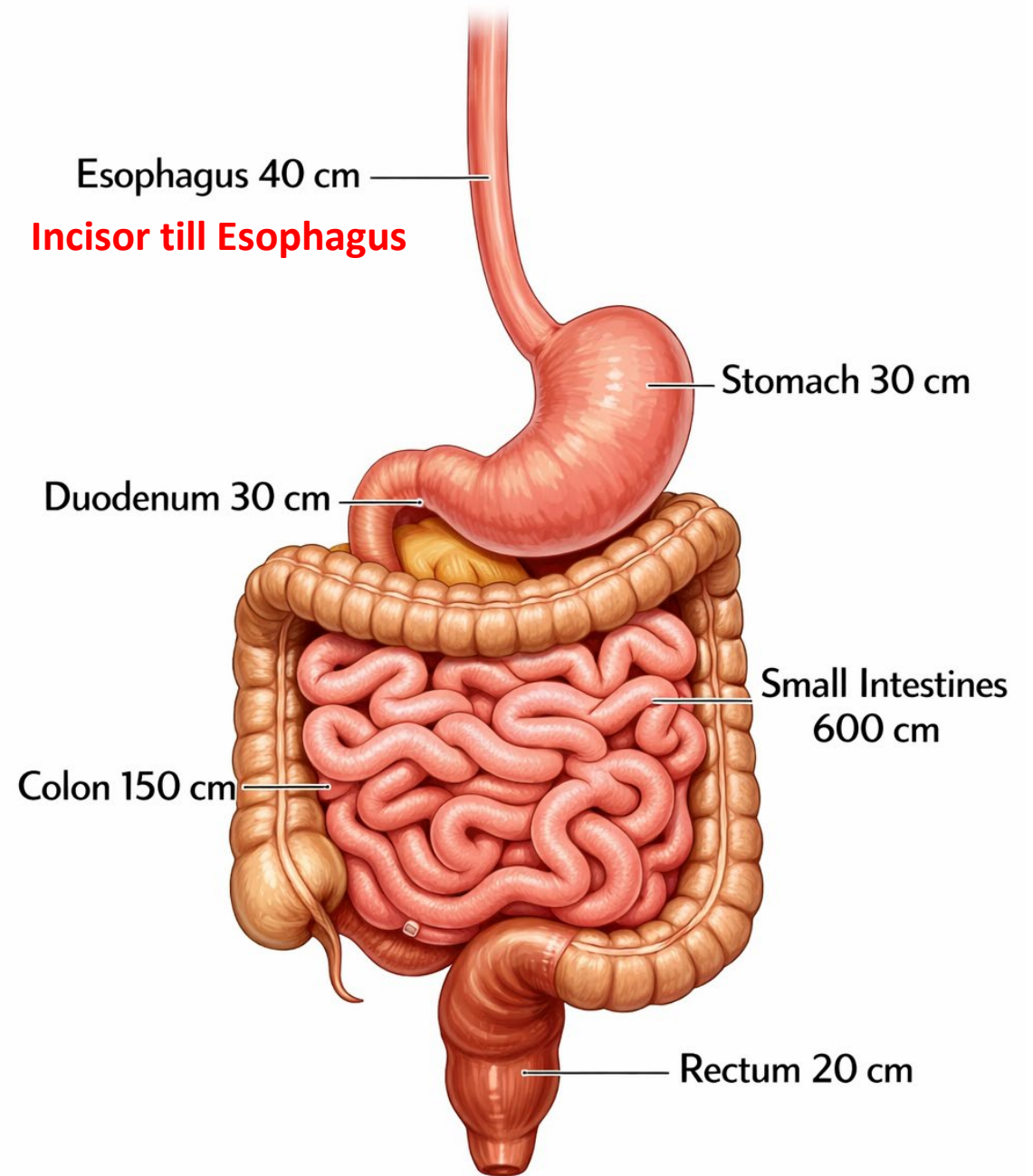
Disclosure

- The references of the slides are a combination of multiple sources
- Illustrations are borrowed from internet sources, some generated by ChatGPT and others intraoperative photos.
- If you would like a copy of the lecture, kindly ask for it so I can edit them out
- The Approach may vary according to clinicians, but the general principals and concepts should remain largely uniformed amongst clinicians (Gastroenterologist and Surgeons alike)

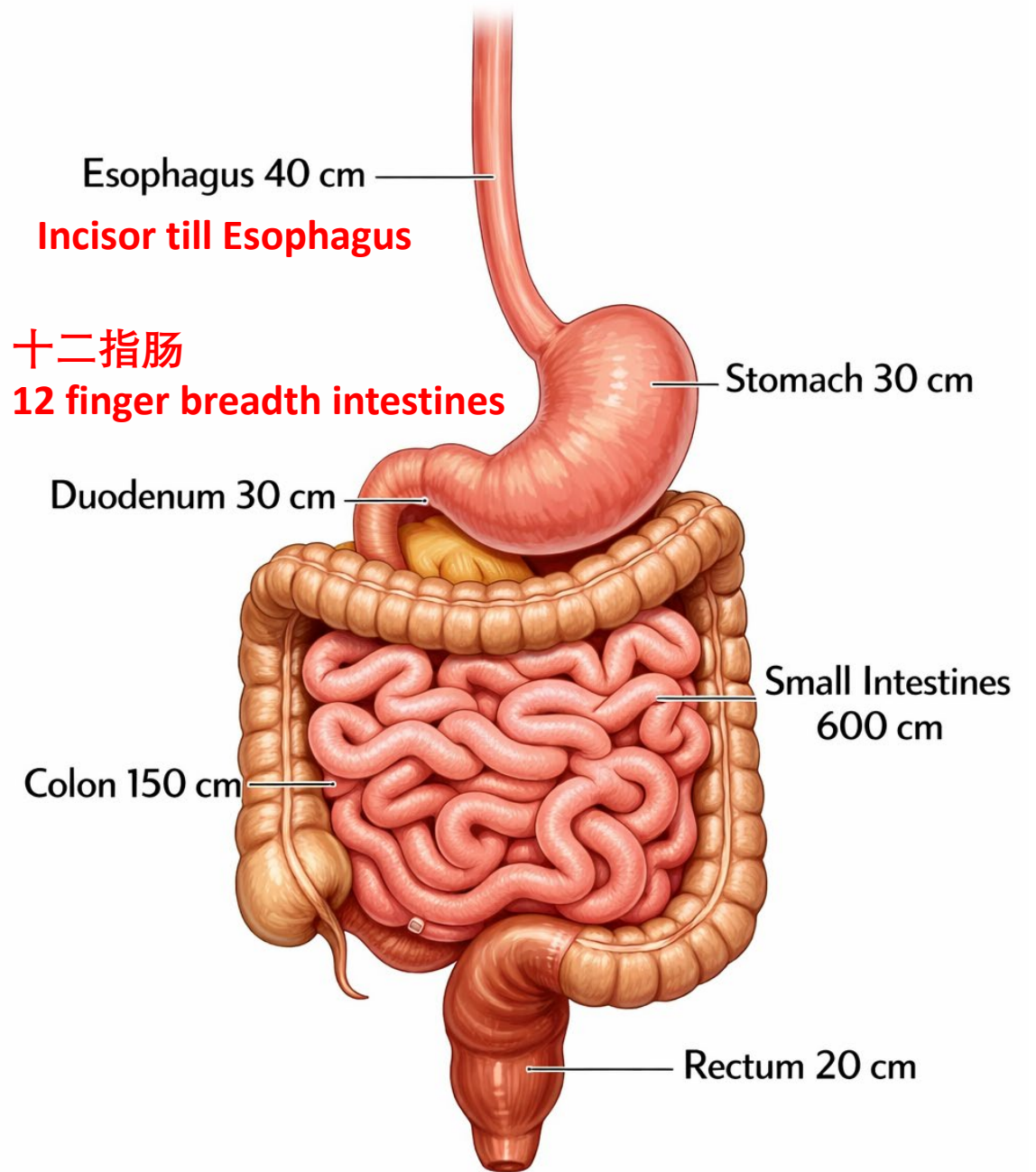
Digestive Tract



Digestive Tract

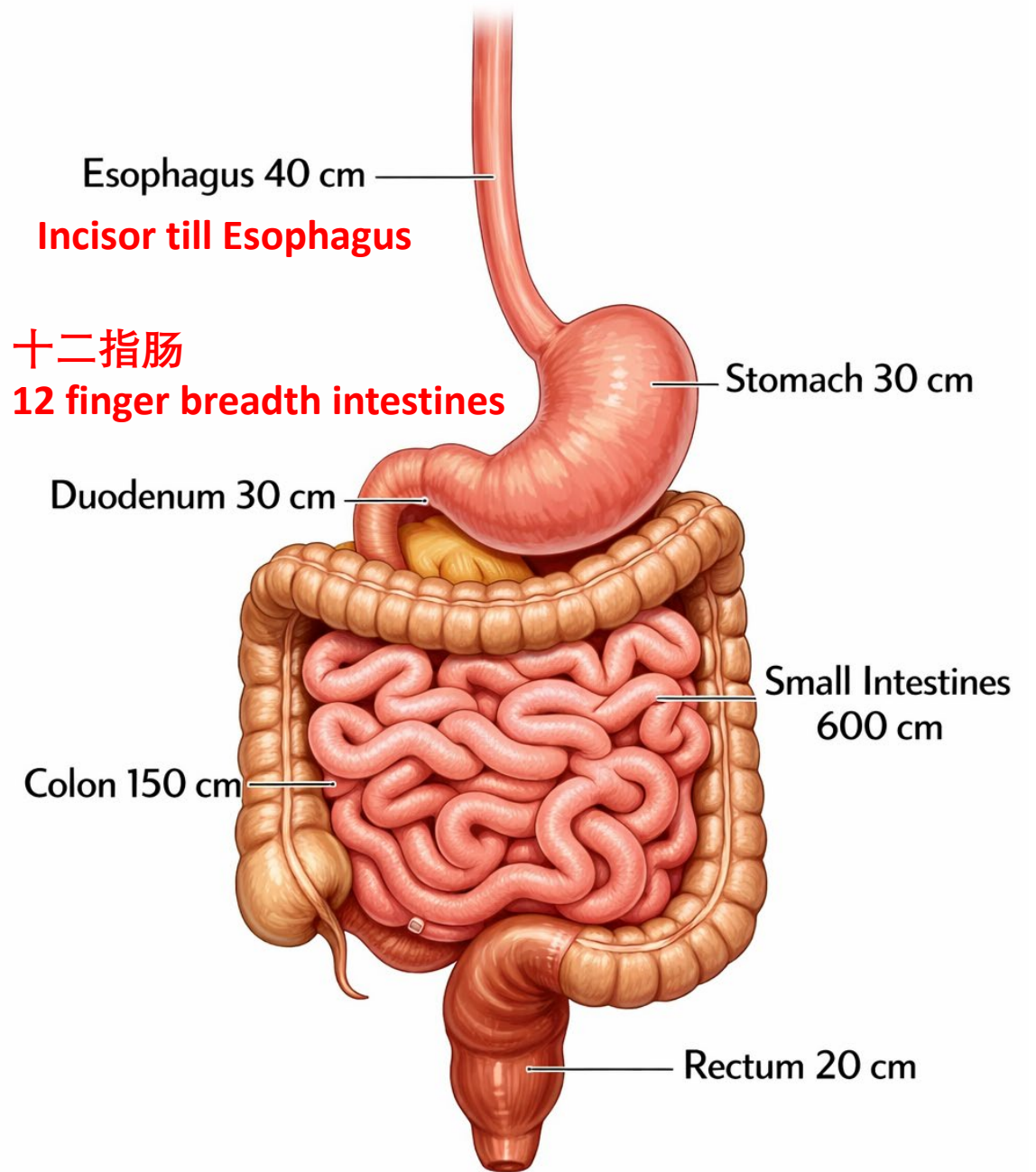


Digestive Tract



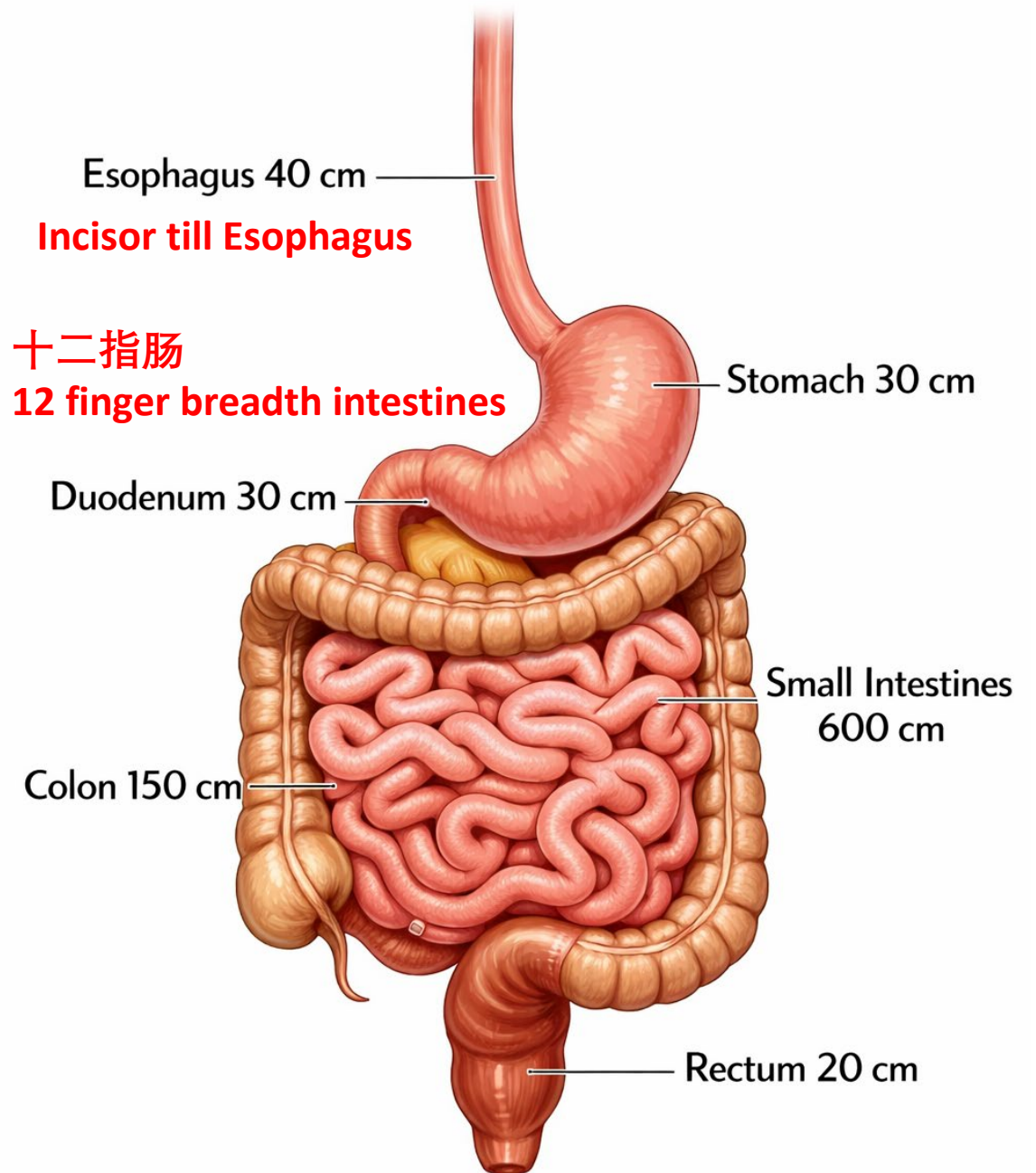
Digestive Tract

Total Length: 870cm



Digestive Tract

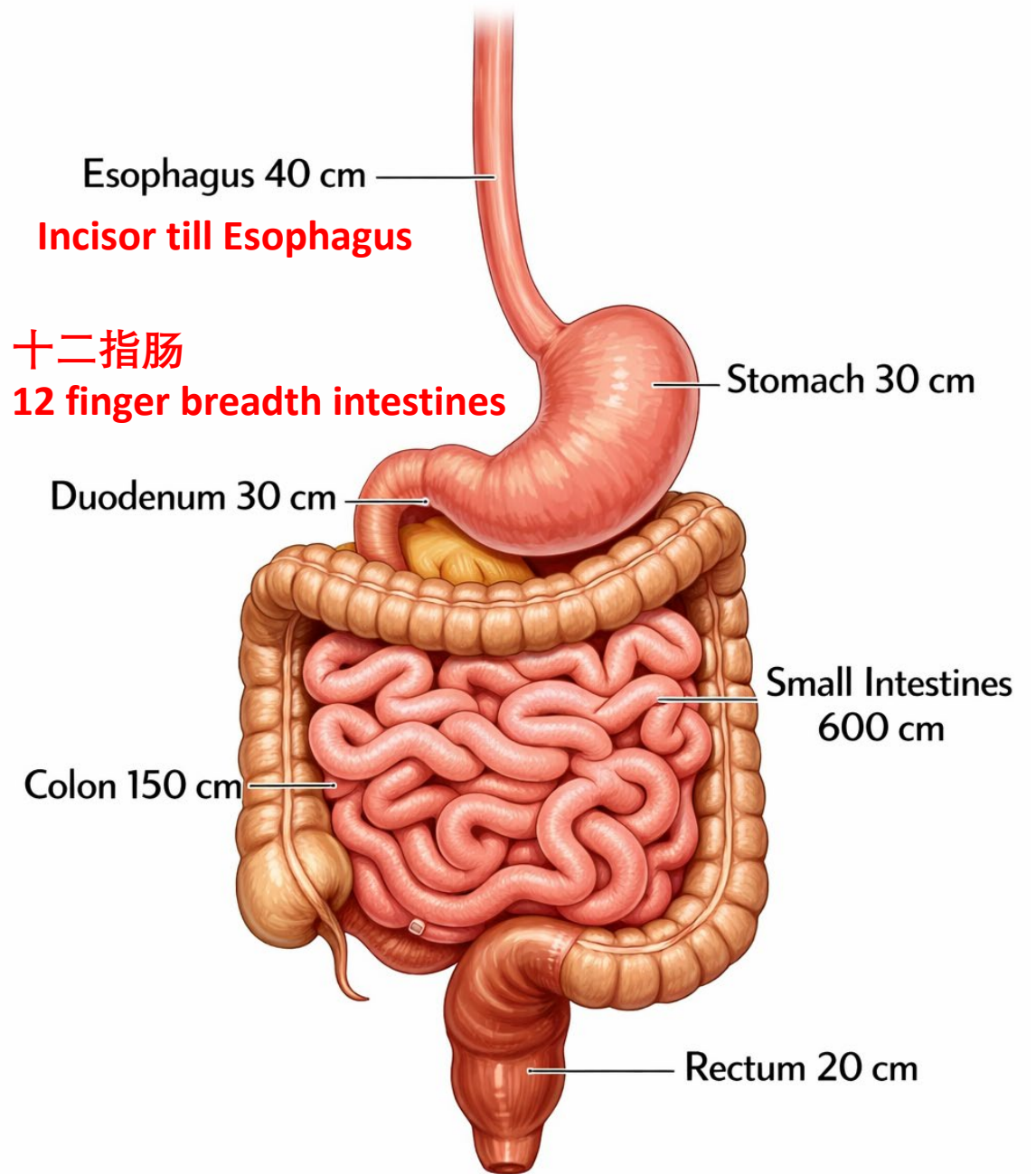
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Digestive Tract

Total Length: 870cm

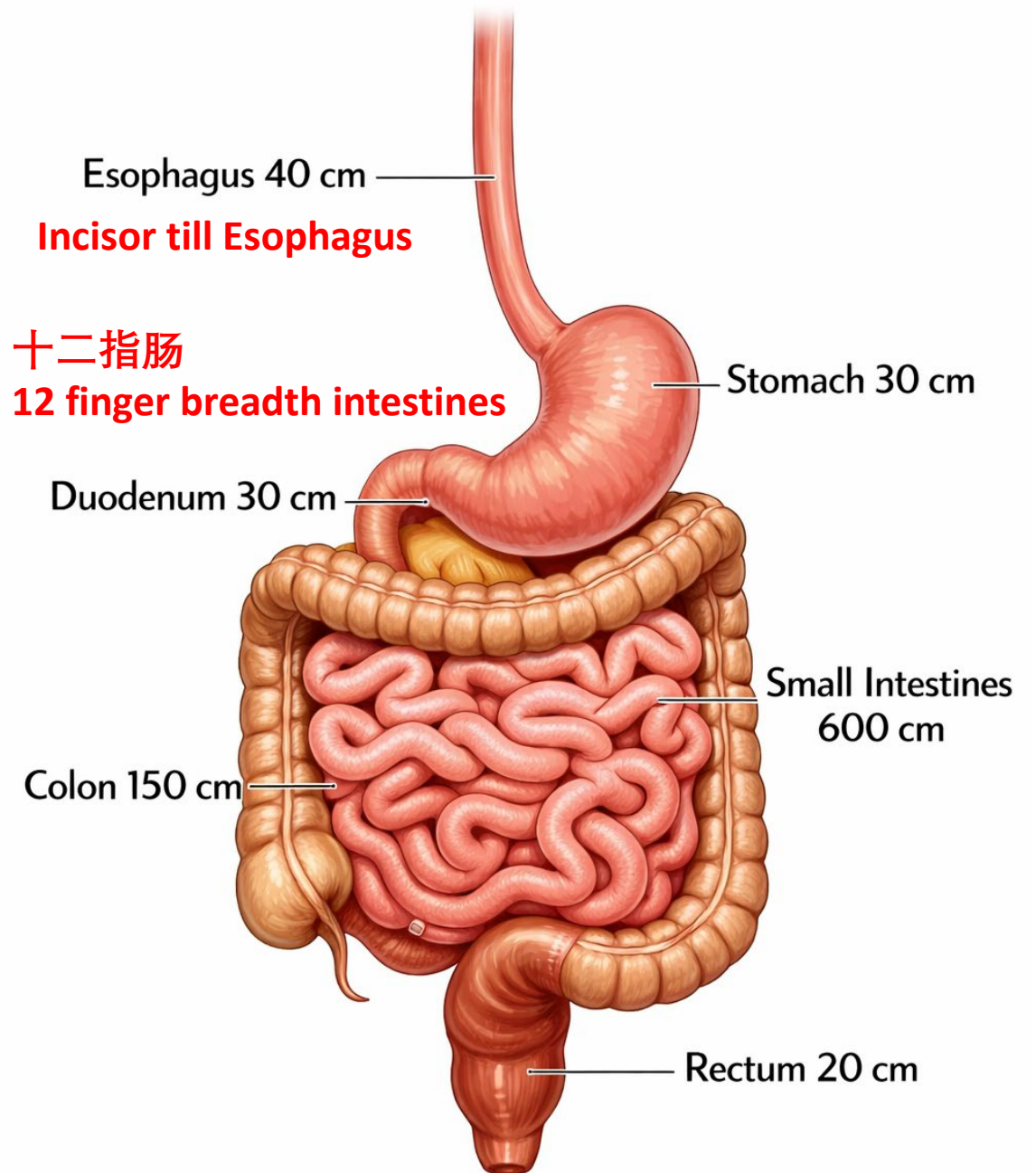
Average of 7.5m – 9m Long



Digestive Tract

Total Length: 870cm

Average of 7.5m – 9m Long



Digestive Tract

Total Length: 870cm

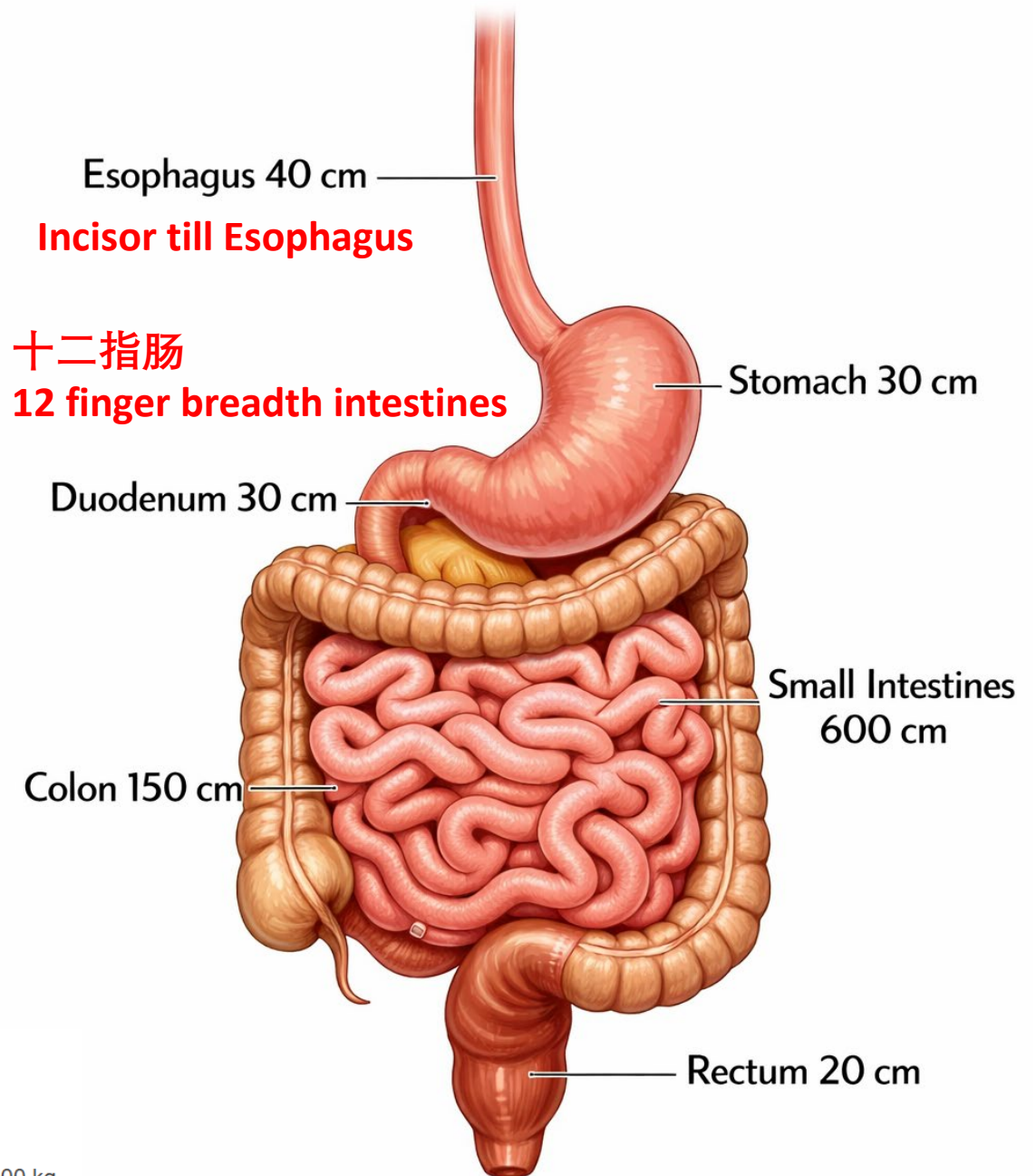
Average of 7.5m – 9m Long



 Danish Army Vehicles Homepage
<https://www.armyvehicles.dk> > merc0309

Mercedes 0309/41/66

Length: 6.95 m (271 inches). Width: 2.14 m (83 inches). Height: 2.87 m (111 inches). Weight: 6.600 kg (14.520 lb.). [Read more](#)



Esophagus 40 cm

Incisor till Esophagus

十二指肠

12 finger breadth intestines

Stomach 30 cm

Duodenum 30 cm

Small Intestines
600 cm

Colon 150 cm

Rectum 20 cm

Digestive Tract

Total Length: 870cm

Average of 7.5m – 9m Long

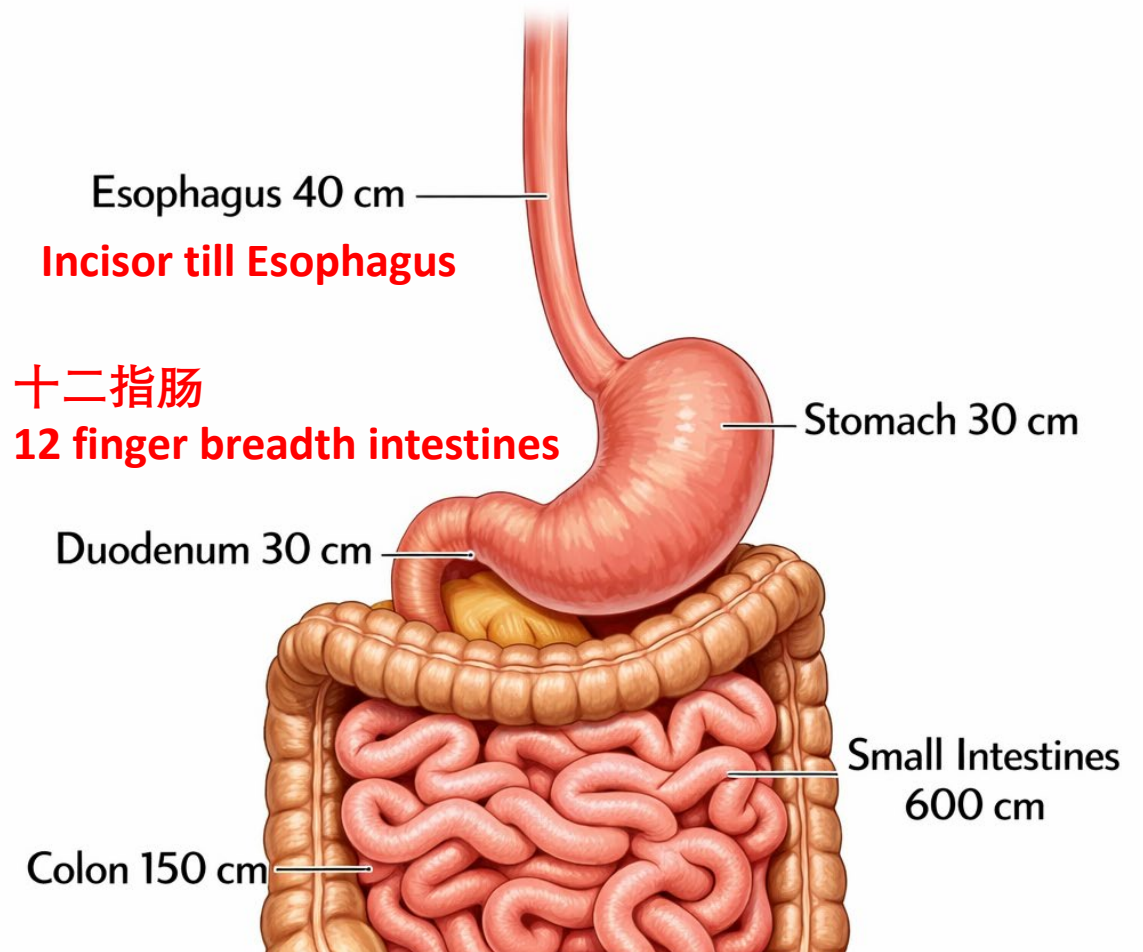


Danish Army Vehicles Homepage

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20 cm

Gastrointestinal Bleeding



MSD Manuals

<https://www.msdmanuals.com> › gastrointestinal-disorders



Overview of Gastrointestinal Bleeding

Gastrointestinal (GI) bleeding **can originate anywhere in the GI tract from the mouth to the anus**, and it can be overt or occult. [Read more](#)



MSD Manuals

<https://www.msdmanuals.com> › home › gastrointestinal-...



Gastrointestinal Bleeding - Digestive Disorders

Bleeding may occur anywhere along the digestive (gastrointestinal or GI) tract, from the mouth to the anus. Blood may be easily seen by the naked eye (overt). [Read more](#)



Mayo Clinic

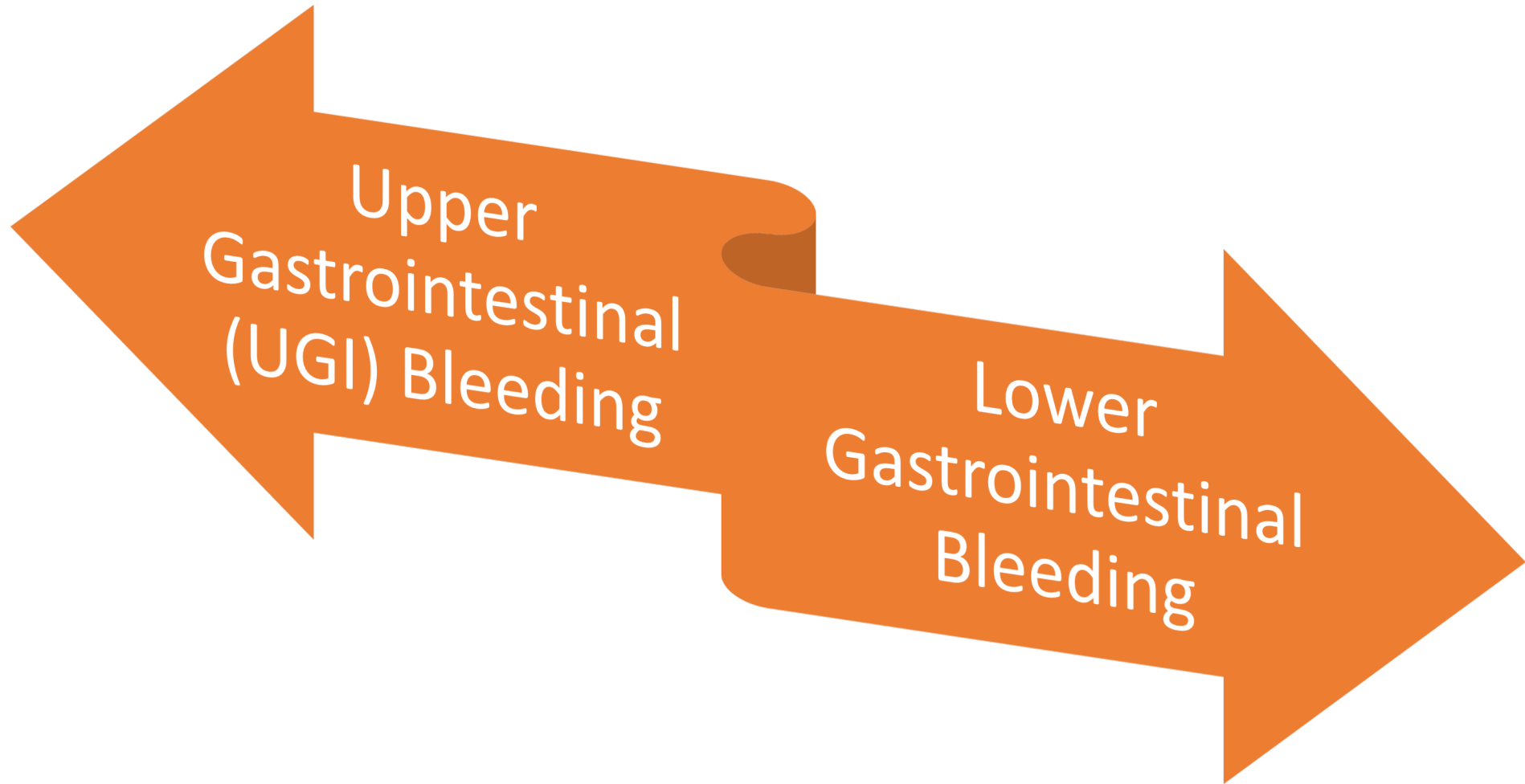
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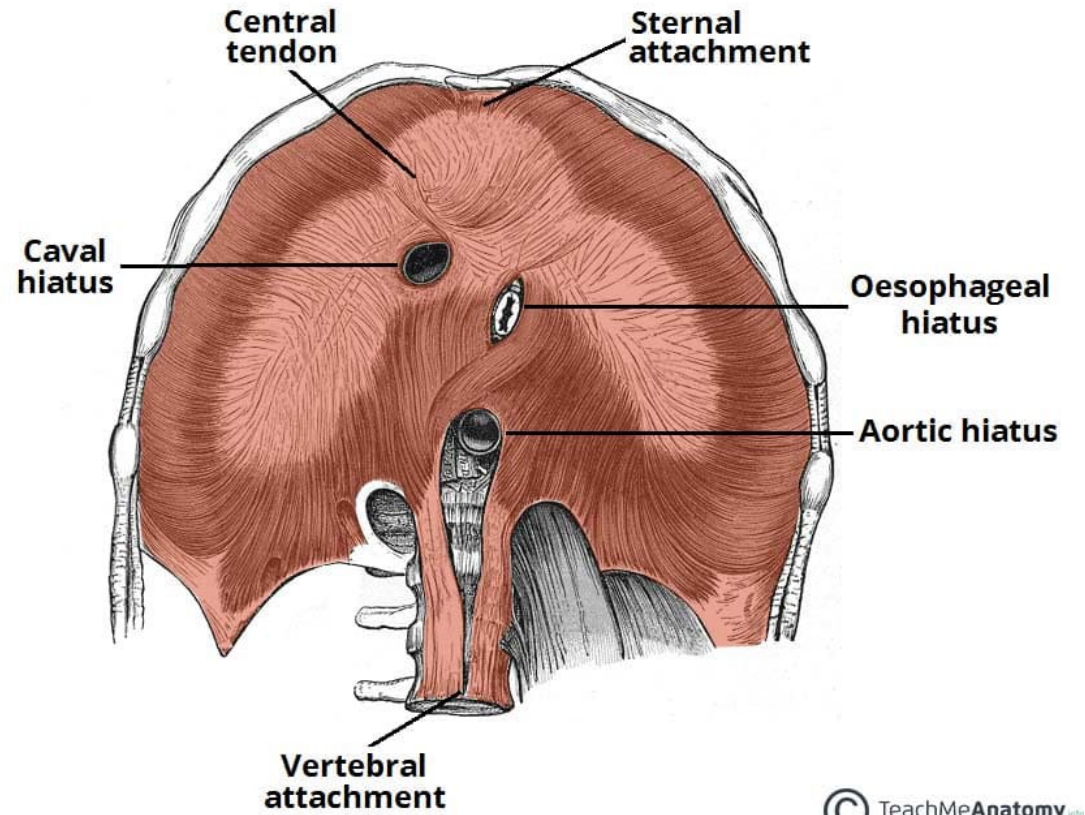
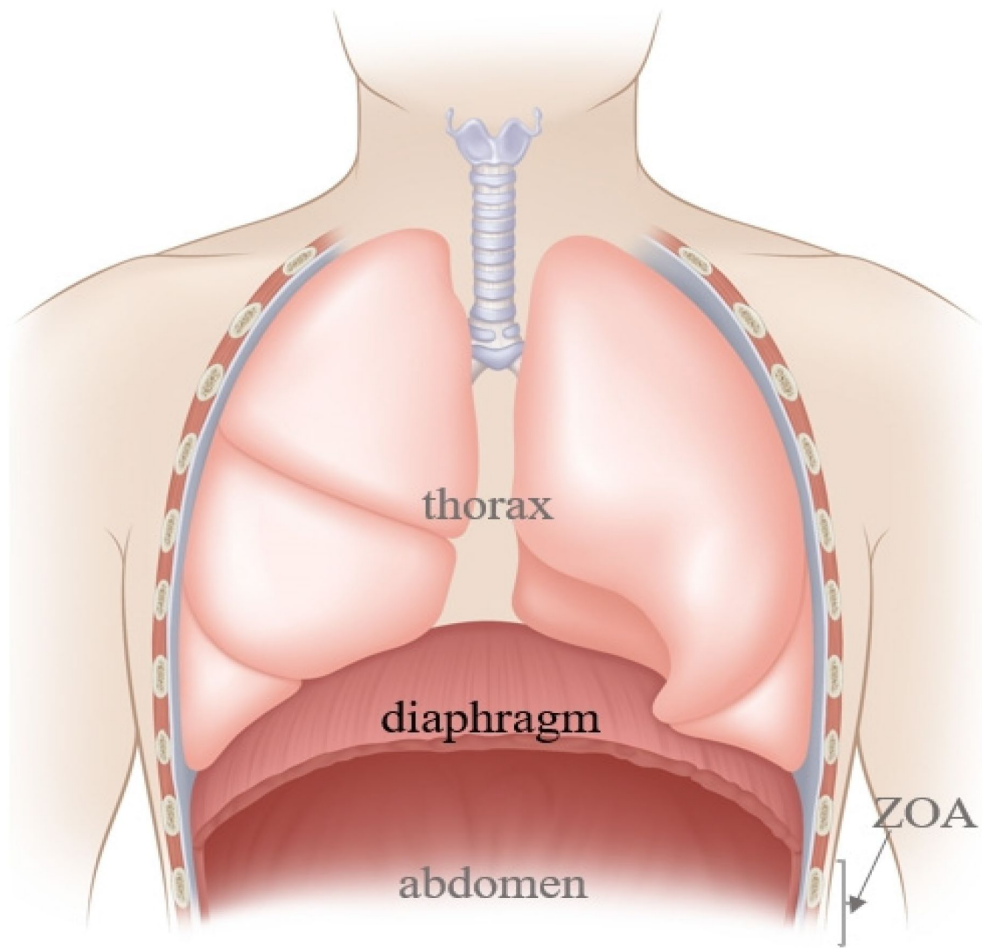


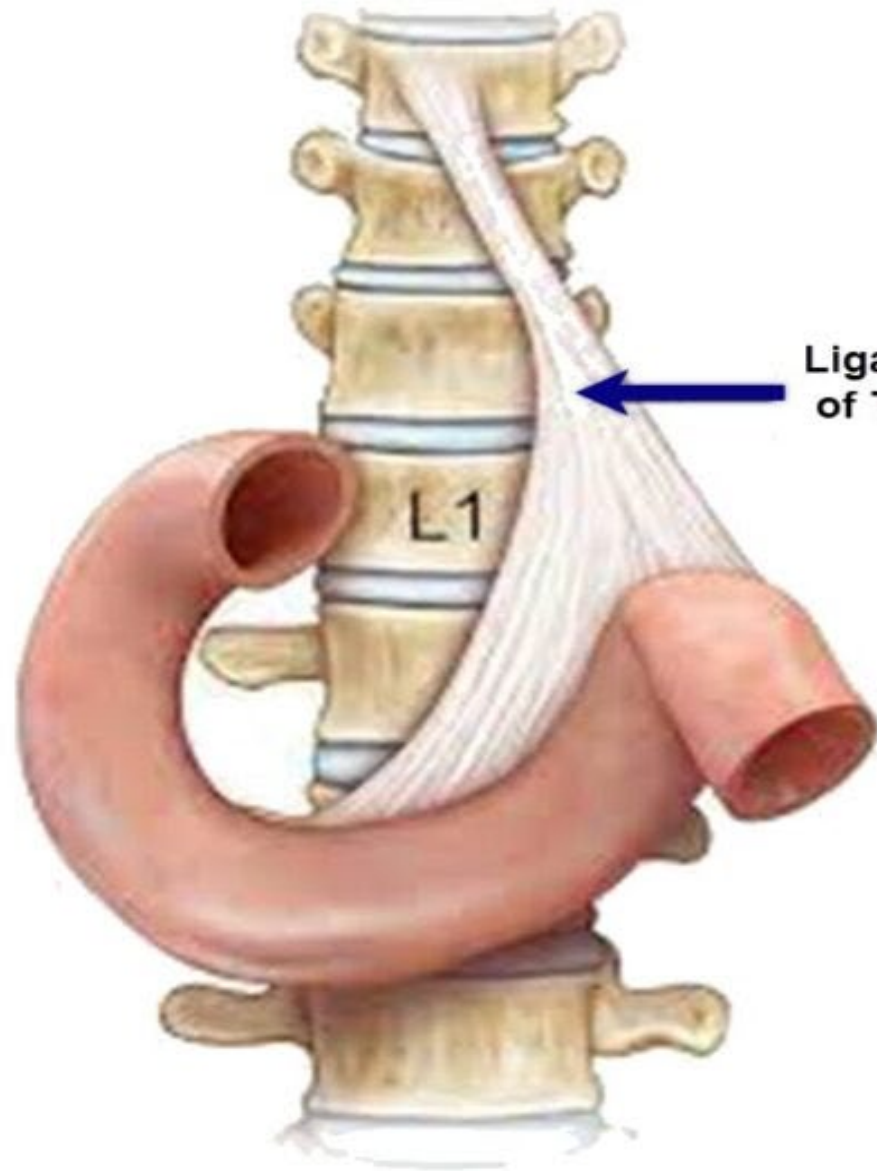
Gastrointestinal bleeding - Symptoms and causes

13 Oct 2023 — Gastrointestinal (GI) bleeding is a **sign of a disorder in the digestive tract**. The blood often shows up in stool or vomit but isn't always obvious. [Read more](#)

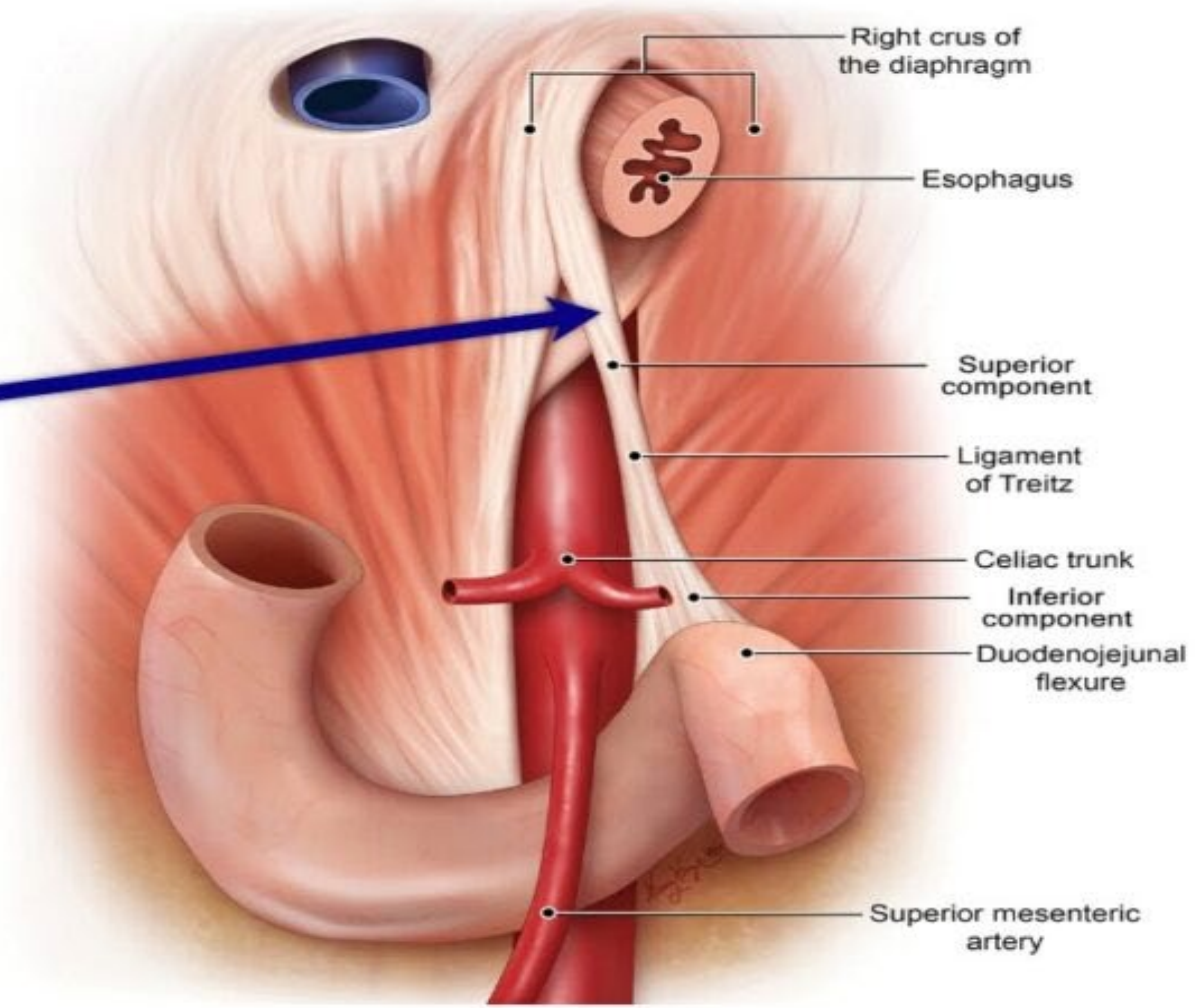
Gastrointestinal Bleeding







Ligament of Treitz



Right crus of the diaphragm

Esophagus

Superior component

Ligament of Treitz

Celiac trunk

Inferior component

Duodenojejunal flexure

Superior mesenteric artery

Why the Differentiation?

Different clinical presentation

Why the Differentiation?

Different clinical presentation

Different Diagnostic Approach

Why the Differentiation?

Different clinical presentation

Different Diagnostic Approach

Different predicted course of bleeding

Why the Differentiation?

Different clinical presentation

Different Diagnostic Approach

Different predicted course of bleeding

Different treatment approach

Why the Differentiation?

Different clinical presentation

Different clinical presentation

Acute

Different clinical presentation

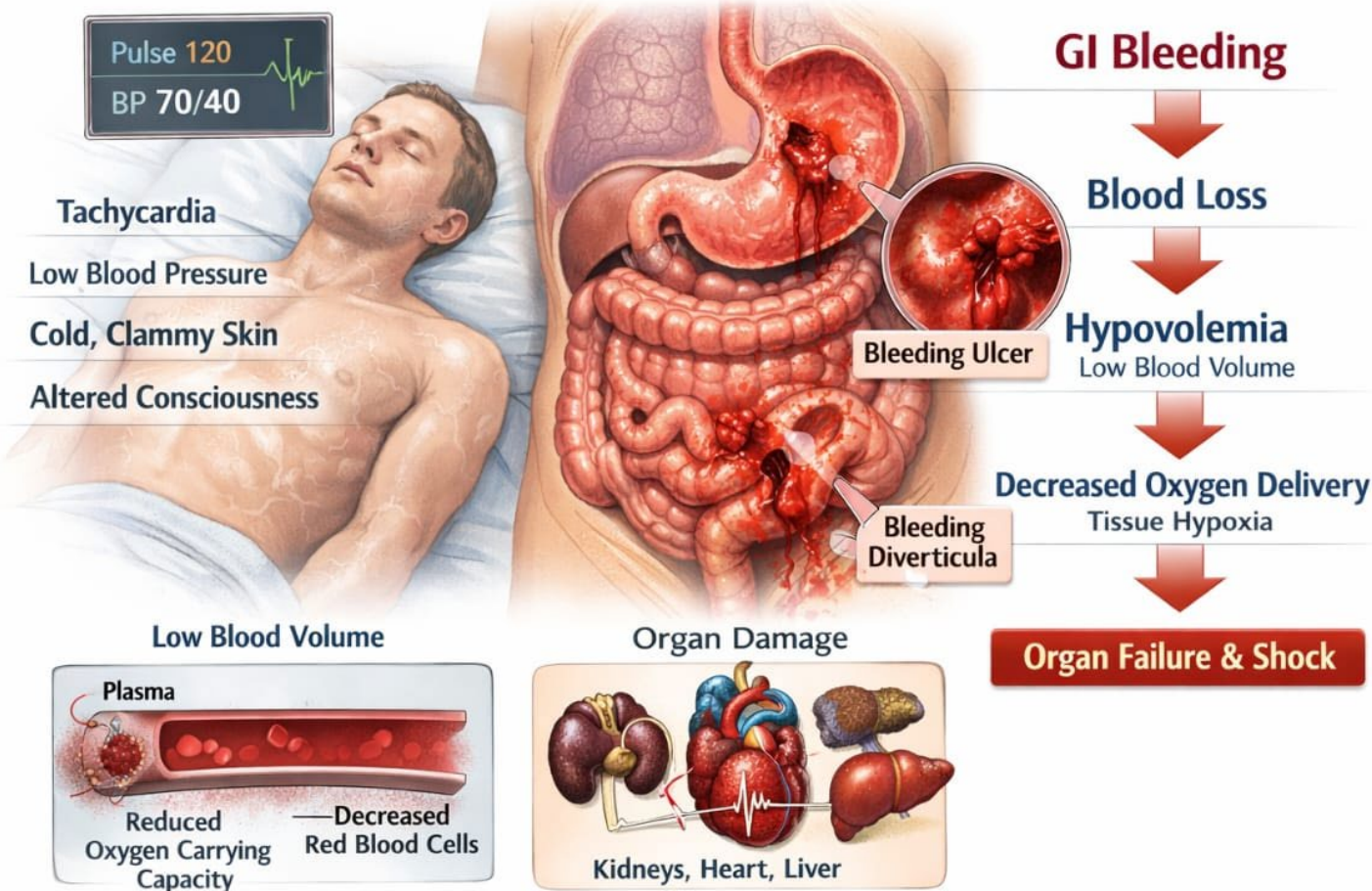
Acute

Clinic (Stable)

Different clinical presentation

Acute

Hemorrhagic Shock from Gastrointestinal Bleeding



Different clinical presentation

Acute

Recurrent Symptoms of GI Bleeding, not massive

Demonstrable signs of GI Bleed

Symptomatic Anemia

Requires blood transfusion for very low Hemoglobin levels

Different clinical presentation

Demonstrable signs of GI Bleed

Anemic

Acute

Pre-Existing Co-morbidity that require blood thinners

Pre-Existing Co-morbidity that may deteriorate from recurrent blood loss with anemia

Different clinical presentation

Anemic

Acute

Pre-Existing Co-morbidity that require blood thinners

Pre-Existing Co-morbidity that may deteriorate from recurrent blood loss with anemia

Different clinical presentation

Probable signs of GI Bleed

Anemic

Unwell

Acute

“Lets make a surgical referral just to be sure it is not a GI Bleed”

Different clinical presentation

Acute

“L



it

Different clinical presentation

Acute

Clinic (Stable)

Different clinical presentation

Clinic (Stable)

Different clinical presentation

Anemic

Clinic (Stable)

Recurrent small amounts of
Lower GI Bleeding

Specific test positive for occult
GI bleeding

Different clinical presentation

Clinic (Stable)

SCREENING FOR MALIGNANCY

Different clinical presentation

Upper GI Bleeding

Different clinical presentation

Upper GI Bleeding

Lower GI Bleeding

Different clinical presentation (Acute Setting)

Upper GI Bleeding

Hematemesis

Lower GI Bleeding



Different clinical presentation (Acute Setting)

Upper GI Bleeding

Lower GI Bleeding

Hematemesis



Self Limiting

Different clinical presentation (Acute Setting)

Upper GI Bleeding

Lower GI Bleeding

Hematemesis



Self Limiting

Bloody Stools

Different clinical presentation (Acute Setting)

Upper GI Bleeding

Lower GI Bleeding

Hematemesis



Self Limiting

Bloody Stools

Hemorrhagic Shock

Different clinical presentation (Acute Setting)

Bloody Stools

Hemorrhagic Shock

ALWAYS RULE OUT UPPER GI BLEEDING FIRST

Different clinical presentation (Acute Setting)

Bloody Stools



Different clinical presentation (Acute Setting)

Melena (Black Tarry Stool)

Minimum 50mls – 200mls of bleeding

Blood has spent considerable time in GI Tract

Distinct Smell

Blood in GI Tract is a natural cathartic (Laxative)

Usually indicates Upper GI Bleeding (especially concurrent with Hematemesis)

May be a symptom of bleeding from the small intestines or right colon

Different clinical presentation (Acute Setting)

Melena (Black Tarry Stool)

Fresh Melena? Stale Melena?

Different clinical presentation (Acute Setting)

Melena (Black Tarry Stool)

~~Fresh vomit or melena?~~

Different clinical presentation (Acute Setting)

Melena (Black Tarry Stool)

Fresh Melena? Stale Melena?



Different clinical presentation (Acute Setting)

Hematochezia

Maroon colored blood per rectum WITHOUT STOOLS



Different clinical presentation (Acute Setting)

Hematochezia

Maroon colored blood per rectum WITHOUT STOOLS

May be a sign of massive Upper GI Bleeding

Especially in the presence of haemorrhagic shock

May be confused with bloodied stools with mucous/diarrhoea

Different clinical presentation (Acute Setting)

Per Rectal Bleeding

Usual ward referral with stool impaction

May also present with recurrent bleed and severe anaemia

Different clinical presentation (Acute Setting)

Relevant History

Duration, onset and ?Recurrence

Symptoms (as described)

Stool consistency (?any stool passage with blood, ?mucous like,
?Preceding diarrhoea)

Risk factors of Upper GI Bleed (i.e. Liver Disease, NSAID Abuse, Alcohol Abuse)

Possibility of Malignancy (Severe weight loss and vomiting, alterations of constipation and mucous
like/loose stools)

Possibility of Coagulopathy (Drug History, Traditional Medication)

Past History (co-morbidities, history of endoscopy, past surgery), Mobility

Different clinical presentation (Acute Setting)

Relevant Examination

SIGNS OF HEMORRHAGIC SHOCK

Signs of Malignancy (Cachexia, Palpable Mass, Virchow's Node)

DIGITAL RECTAL EXAMINATION

Different clinical presentation (Acute Setting)

Upper GI Bleed

Non-Variceal

Variceal

Different clinical presentation (Acute Setting)

Upper GI Bleed

Non-Variceal

Variceal

Peptic Ulcer Disease

Workout underlying cause

Duodenal Erosions and Penetrating Peptic Ulcers

Mallory Weis Tear

Haemorrhagic Gastritis and erosions

Different clinical presentation (Acute Setting)

Lower GI Bleed

Bleeding Diverticular Disease

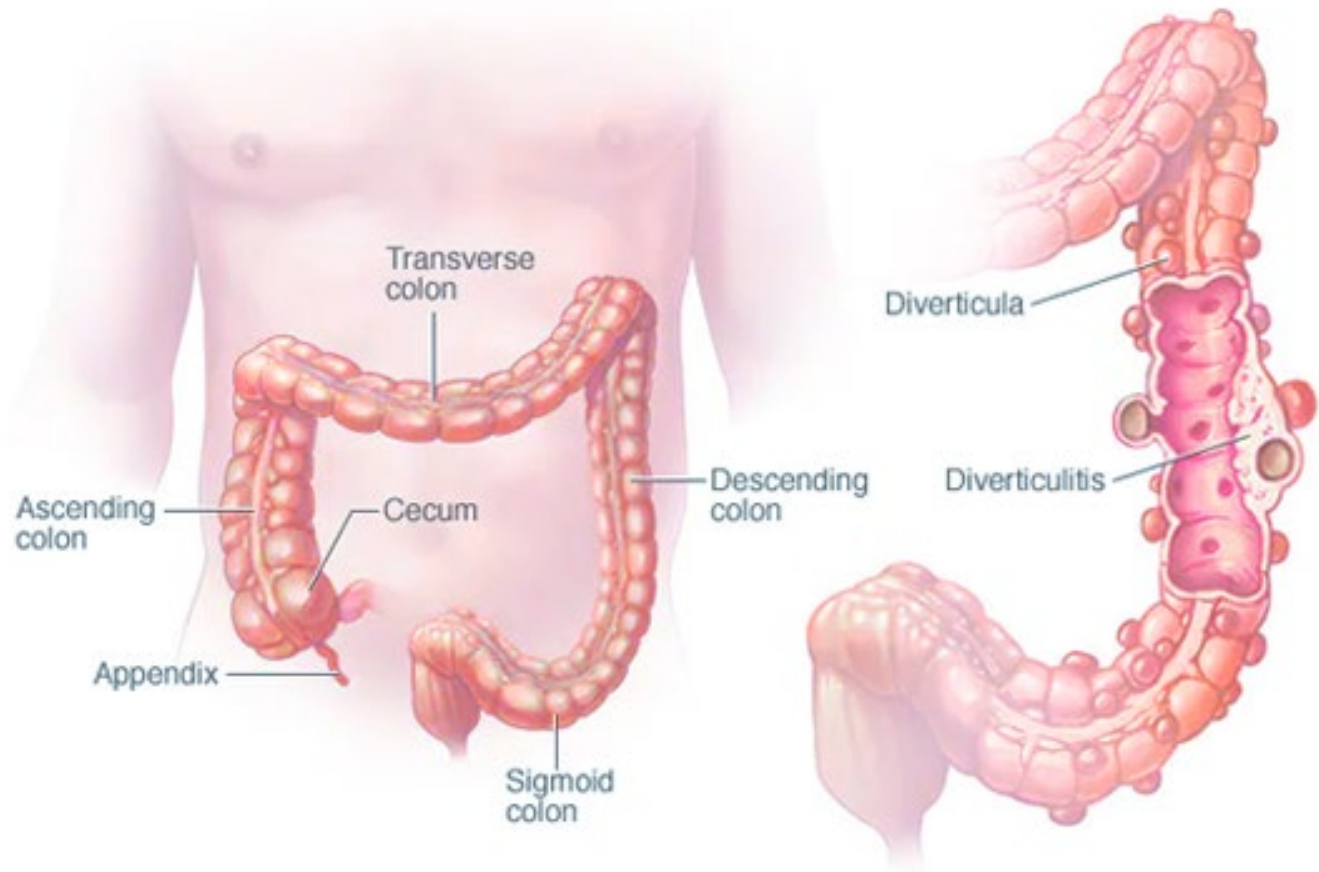
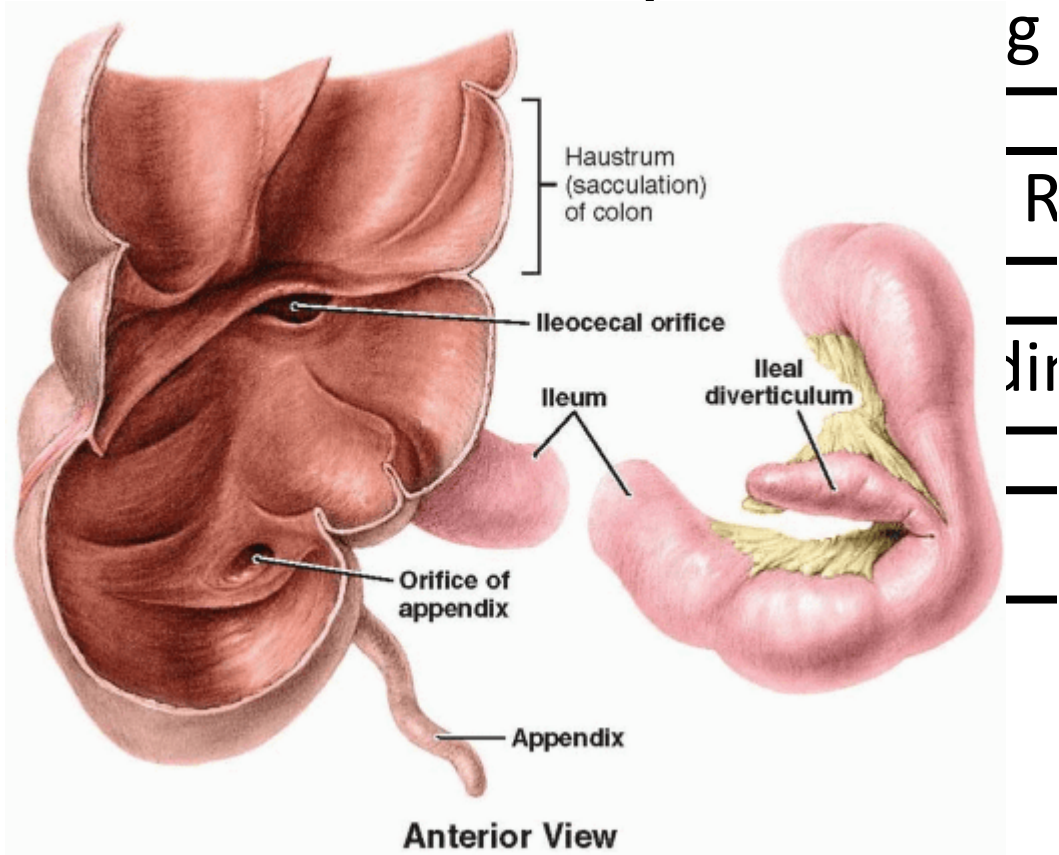
Rectal Ulcers

Bleeding Polyp/ Tumour

Dysentery

Different clinical presentation (Acute Setting)

Lower GI Bleed



Different clinical presentation (Clinic Setting)

Lower GI Bleed

Occurring before defecation

Coating Stools

Occurring After Stools

Painful vs painless per rectal bleeding

Red Flag Signs – Smaller Caliber stools, Mucous Like stools

Constitutional symptoms and family history of malignancy

Signs and Symptoms of Anemia and Heart Failure

PERINEAL INSPECTION, PROCTOSCOPY AND DIGITAL RECTAL EXAMINATION

Different clinical presentation (Clinic Setting)

Lower GI Bleed

Painful

Anal Fissure

Ulceration, Fistulation and Inflammation

Anal Warts/Cancer

Painless

Colorectal Cancer

Bleeding Rectal Polyp

Bleeding Rectal Ulcer

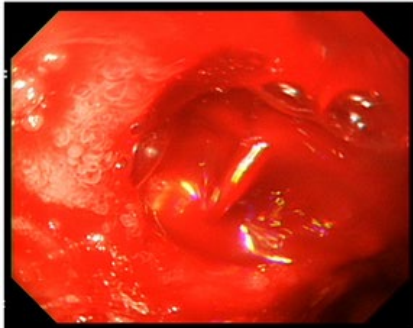
Inflammatory bowel disease

Obscure GI Bleeding

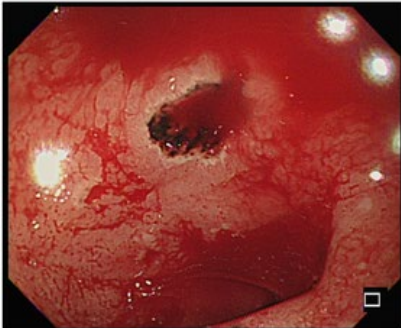
Management of Acute Upper GI Bleed Requiring Hemostasis

Upper GI Bleed - OGDS

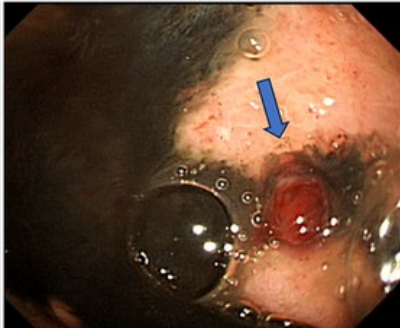
Non-Variceal



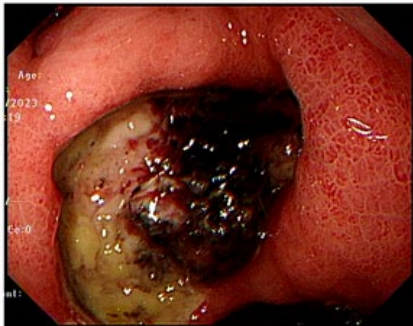
Forrest IA



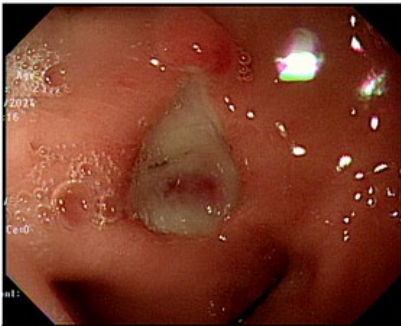
Forrest IB



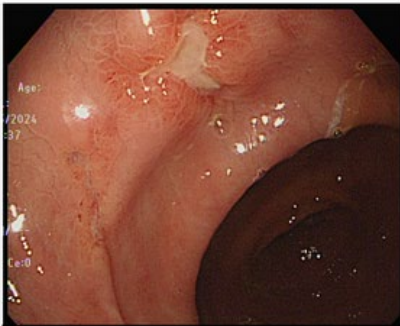
Forrest IIA



Forrest IIB

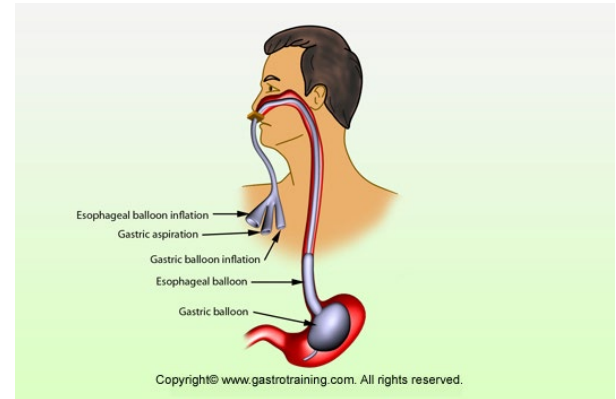
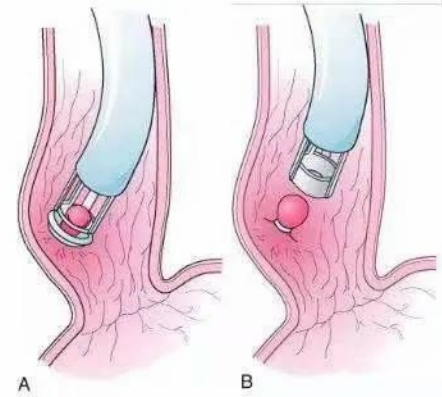


Forrest IIC



Forrest III

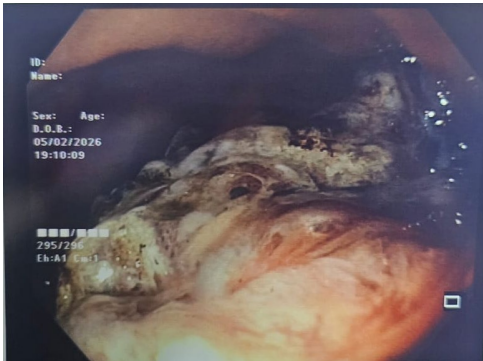
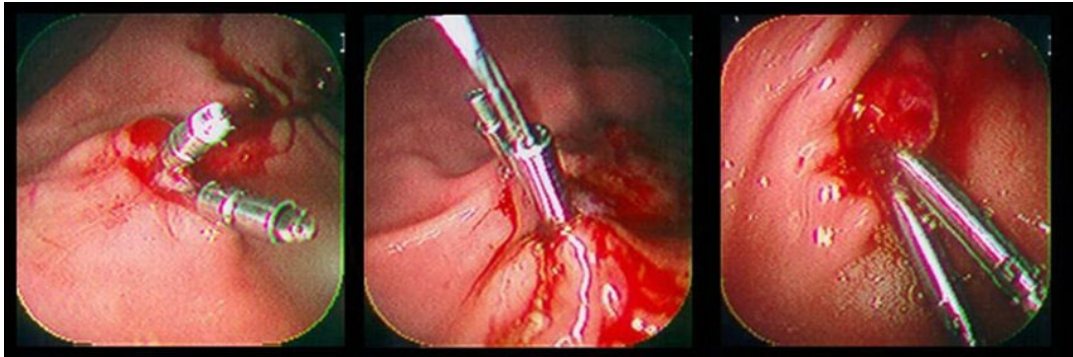
Variceal



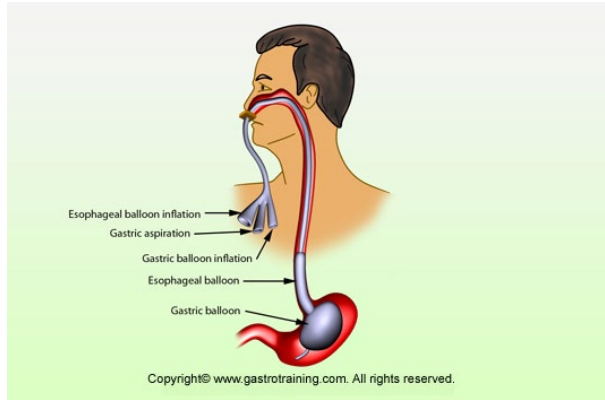
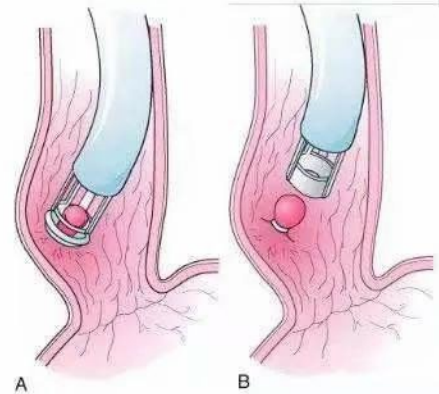
Management of Acute Upper GI Bleed Requiring Hemostasis

Upper GI Bleed - OGDS

Non-Variceal



Variceal



Management of Acute Upper GI Bleed Requiring Hemostasis

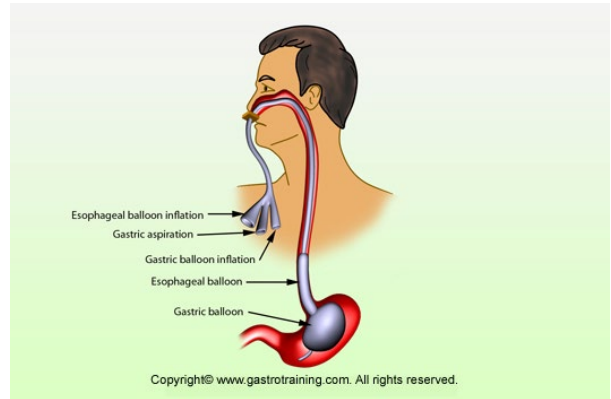
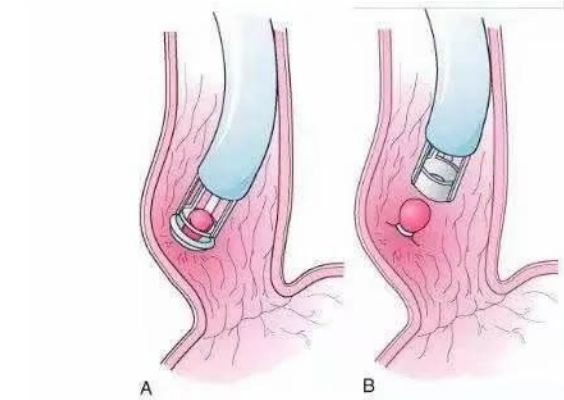
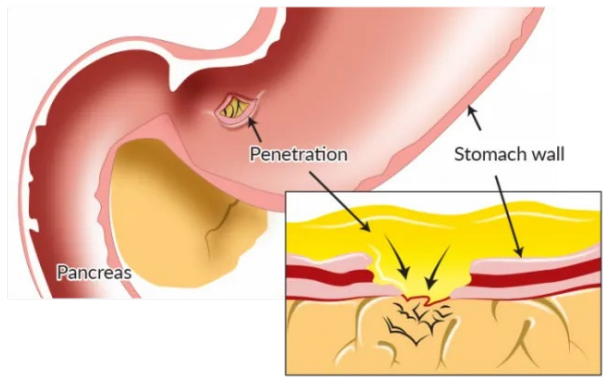
Upper GI Bleed - OGDS

Non-Variceal

Surgical Underrunning

Gastrectomy

Variceal



Management of Acute Upper GI Bleed Requiring Hemostasis

Upper GI Bleed - OGDS

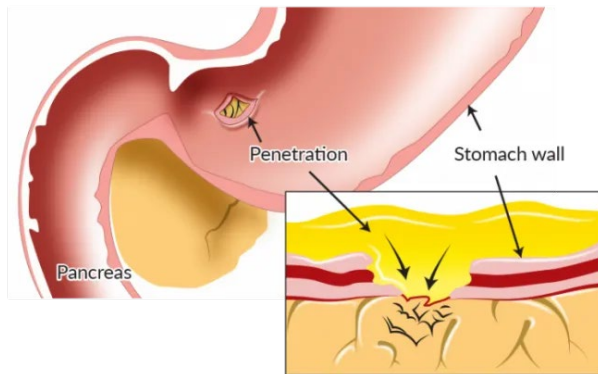
Non-Variceal

Surgical Underrunning

Gastrectomy

Variceal

Portal-Systemic Shunt



Management of Acute Upper GI Bleed Requiring Hemostasis

Lower GI Bleed

Usually Self Limiting

Colonoscopy/ CT Angiogram

Angioembolization/ Surgery if persistent

Additional Terminologies

Overt GI Bleeding –
Acute Apparent GI Bleeding

Obscured GI Bleeding –
Signs and Symptoms of GI Bleeding apparent
Source is not found

Occult GI Bleeding –
GI Bleed that is not seen clinically

Thank You

Questions?