**Problem Assisted Learning (PAL)**

**Abdominal Pain**

This PAL is based on the following objectives:

1. **Constipation**
	* List the causes of constipation.
	* Determine when further investigation is required in the management of constipation.
	* Describe the lifestyle changes required for the treatment and prevention of constipation.

1. **Dyspepsia/Heartburn/Indigestion**
	* Describe the signs and symptoms of a patient suffering from dyspepsia.
	* Establish a differential diagnosis for dyspepsia.
	* Prepare a plan of investigation for dyspepsia.
	* Establish a plan for *Helicobacter pylori* eradication.
	* Describe the complications of dyspeptic disease.
	* Discuss the various treatments available to control dyspepsia.
2. **Gastrointestinal Bleeding**
	* Establish the differential diagnosis for rectal bleeding.
	* Describe screening indications for colon cancer.
	* List the indications for anoscopy and/or lower endoscopy.

**Case #1:**

A 21-year-old female patient presents to your office with abdominal pain located at the lower portion of abdomen.

1. What else would you like to know about her pain? Why is family history important to ask?
2. What physical examination would you do?
3. What is your differential diagnosis for abdominal pain?
4. Is there a role for Imaging at this point? Any other tests?
5. What would you recommend to manage her pain?

 **Case #2:**

A 52-year-old male with dyspepsia comes to your office.

* What is your clinical approach?

**Case #3:**

A 36-year-old female has a history of irritable bowel syndrome. She has new presentation of weight loss and rectal bleeding.

* What is your clinical approach?

**Case #4:**

A 72-year-old man has a chief complaint of constipation.

* What do you do with him?

**Things to cover using those cases:**

**Red Flags:**

1. New onset of pain, change in the nature of a chronic pain, pain associated to altered bowel function and pain awakening a patient at night.
2. Weight loss, bleeding from rectum or melena in stool, associated anaemia; associated palpable lymph nodes are also significant.
3. A personal or family history of bowel pathology can affect the assessment in terms of the risk of a patient presenting with a worrisome abdominal pathology such as a malignancy or an inflammatory bowel disorder.

**History:** location, a quadrant approach to abdominal pain; radiation; intensity; precipitators; aggravators; relievers; associated symptoms; sexual history; menstrual history; medication use, NSAID and ASA; ethanol use; smoking; stressors and travel history.

**Physical Exam:** vital signs including general appearance and postural vitals; abdominal examination, link differential diagnosis to quadrants within examination; rectal and pelvic examination; costo-vertebral angle examination and fecal occult blood test.

**Differential Diagnosis: please challenge the students using the four quadrant approach as to the most likely diagnosis.**

**Investigation:**

1. Assess **urgency** of abdominal pain with clinical history and examination. If urgent, make arrangements for definitive investigation and treatment within an emergency setting.
2. If abdominal pain is **non-urgent**:
	1. Investigate the following urine dipstick, urine pregnancy test, an x-ray flat plate, chest x-ray, abdominal ultrasound and upper GI series with follow through depending on the location of maximal pain and tenderness.
	2. Explore differential diagnosis using quadrant approach to abdominal pain. Treatment options will depend on the nature of the suspected pathology.

**Treatments:**

* *Non pharmacological*: dependent on the urgency of the presentation and the nature of the presenting pathology.
* *Pharmacological*: dependent on the urgency of the presentation and the nature of the presenting pathology.