

# Diagnostic Imaging Pathways - Abdominal Pain (Chronic)

## Population Covered By The Guidance

This pathway provides guidance on imaging in adult patients with non-acute abdominal pain; how patients' symptoms may be categorized into specific types, what are the 'red-flags'. The pathway links to others dealing with those specific types.

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**Date of next review: 2017/2018**






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## Quick User Guide

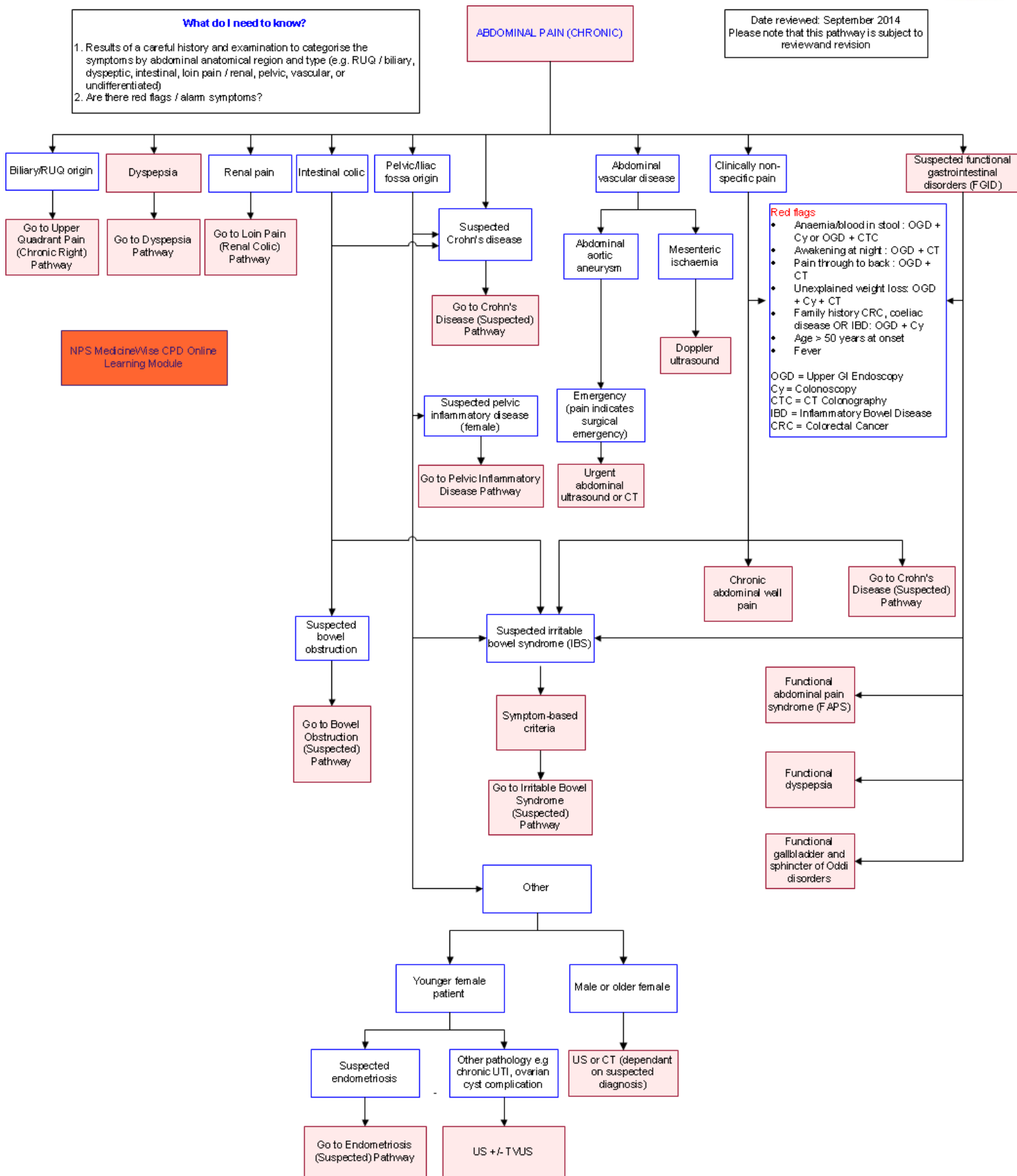
Move the mouse cursor over the **PINK** text boxes inside the flow chart to bring up a pop up box with salient points.

Clicking on the **PINK** text box will bring up the full text.

The relative radiation level (RRL) of each imaging investigation is displayed in the pop up box.

SYMBOL	RRL	EFFECTIVE DOSE RANGE
	None	0
	Minimal	< 1 millisieverts
	Low	1-5 mSv
	Medium	5-10 mSv
	High	>10 mSv

## Pathway Diagram



Coming Soon

## Teaching Points

- The investigation of chronic abdominal pain can be challenging due to the vast nature of potential contributing causes
- The presence of red flag symptoms should warrant further investigation
- Consider Functional Gastrointestinal Disorders (FGIDs) where symptoms are not explained by structural, biochemical or tissue abnormality
- Chronic abdominal wall pain is an under recognised entity that is emerging as a cause of chronic abdominal pain and should be considered where pain is well localised to a specific area of the abdomen
- The use of imaging should be incorporated judiciously as often patients with chronic abdominal pain have had previous imaging studies

## Dyspepsia

- Dyspepsia is a symptom complex of epigastric pain or discomfort thought to originate in the upper gastrointestinal tract, and it may include any of the following symptoms: heartburn, acid regurgitation, excessive burping / belching, increased abdominal bloating, nausea, feeling of abnormal or slow digestion, or early satiety
- Causes include
  - Peptic ulcer disease
  - Gastro-oesophageal reflux disease
  - Biliary tract and pancreatic disease
  - Functional or non-ulcer dyspepsia
- The prevalence of *H.pylori* infection in a developed country is variable. Risk factors known to be associated with a higher risk of infection include age, male gender, lower socio-economic status and smoking [3](#)

## Functional Gastrointestinal Disorders (FGID)

- The Rome criteria is a publication developed to classify functional gastrointestinal disorders (FGIDs) which are disorders of the digestive system where the symptoms are not explained by structural or tissue abnormality [2](#)
- The Rome III Diagnostic Criteria for functional gastrointestinal disorders [Access the criteria](#)

## Chronic Abdominal Wall Pain

- Chronic abdominal wall pain (CAWP) refers to pain that originates from the abdominal wall
- It is often misdiagnosed as having the abdominal cavity as a source
- Frequency varies but one study found that in patients referred with abdominal pain, chronic abdominal wall pain comprised 7.8 percent of a cohort of 1708 patients [4](#)
- The most important and one of the most common forms of CAWP is anterior cutaneous nerve entrapment syndrome (ACNES)
- CAWP is characterised by localisation of pain to a highly specific area of the abdomen

- Identifying this condition early can help avoid unnecessary biochemical and imaging tests as it responds well conservative management and injection of local anaesthetic agent. Correctly administered anaesthetic injections have been reported to provide pain relief in this condition ranging from 70–90 percent [5](#)
- Further reading on this topic [Access further reading](#)

## Gynaecological Ultrasound

- Ultrasonography is a non invasive tool that can produce images that can detect a wide array of gynaecological pathology that contribute to chronic abdominal / pelvic pain [6](#)
- Whilst ultrasound is well established in the investigation of pelvic pathology its assessment in chronic pelvic pain has not been widely studied. One study investigating transvaginal ultrasound (TVUS) in patients with chronic pelvic pain found the positive predictive value of an abnormal scan as 94 percent and negative predictive value of a normal scan 60 percent [7](#)
- The ability of TVUS in diagnosing ovarian endometrioma ranges from sensitivities of 45 to 90 percent and specificities of 96 to 100 percent [6](#)
- Where endometriosis is suspected as a cause of chronic pelvic / abdominal pain TVUS has limitations in the detection of peritoneal endometriosis [8](#)
- Studies have detailed the efficacy of transrectal ultrasound in diagnosis of deep pelvic endometriosis with sensitivities ranging from 97 to 100 percent [9,10](#)
- Saline infusion sonohysterography (SIS) improves that diagnostic accuracy of TVUS
- Information for consumers [Ultrasound](#) , [Transvaginal Ultrasound](#)

## Computed Tomography (CT)

- CT maybe useful where there is a non specific clinical picture, it is able to detect intra-abdominal inflammatory processes that are contributing to chronic abdominal pain [11](#)
- Information for consumers on CT [InsideRadiology](#)

## References

Date of literature search: April 2014

The search methodology is available on request. [Email](#)

References are graded from Level I to V according to the Oxford Centre for Evidence Based Medicine, Levels of Evidence. [Download the document](#)

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- 2.** Drossman DA. **The functional gastrointestinal disorders and the Rome III process.** Gastroenterology. 2006 A;130(5):1377-90. (Review article). [View the reference](#)
- 3.** Murray LJ, McCrum EE, Evans AE, Bamford KB. **Epidemiology of helicobacter pylori infection among 4742 randomly selected subjects from Northern Ireland.** Int J Epidemiol. 1997;26(4):880-7. (Level II evidence). [View the reference](#)
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  6. Okaro E, Valentin L. **The role of ultrasound in the management of women with acute and chronic pelvic pain.** Best Pract Res Clin Obstet Gynaecol. 2004;18(1):105-23. (Review article). [View the reference](#)
  7. Ozaksit G, Caglar T, Zorlu CG, Cobanoglu O, Cicek N, Batioglu S, et al. **Chronic pelvic pain in adolescent women. Diagnostic laparoscopy and ultrasonography.** J Reprod Med. 1995;40(7):500-2. (Level III evidence). [View the reference](#)
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  11. Smith EA, Dillman JR, Elsayes KM, Menias CO, Bude RO. **Cross-sectional imaging of acute and chronic gallbladder inflammatory disease.** AJR Am J Roentgenol. 2009;192(1):188-96. (Review article). [View the reference](#)

## Information for Consumers

Information from this website	Information from the Royal Australian and New Zealand College of Radiologists' website
<p><a href="#">Radiation Risks of X-rays and Scans</a></p> <p><a href="#">Computed Tomography (CT)</a></p> <p><a href="#">Ultrasound</a></p>	<p><a href="#">Computed Tomography (CT)</a></p> <p><a href="#">Contrast Medium (Gadolinium versus Iodine)</a></p> <p><a href="#">Gadolinium Contrast Medium</a></p> <p><a href="#">Iodine-Containing Contrast Medium</a></p> <p><a href="#">Radiation Risk of Medical Imaging During Pregnancy</a></p> <p><a href="#">Radiation Risk of Medical Imaging for Adults and Children</a></p> <p><a href="#">Ultrasound</a></p>

## [Transvaginal Ultrasound](#)

### **NPS MedicineWise CPD Online Learning Module**

Access the NPS MedicineWise online learning module that has been developed to support GPs, registrars and medical students to make best use of diagnostic imaging in investigating chronic abdominal pain.

[Learning Module](#)

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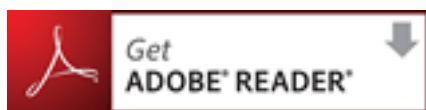
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