Practical Management of
Common Chronic Pain Condition in Primary Care

MANAGEMENT OF CHRONIC ABDOMINAL PAIN

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INTRODUCTION

- Common presentation in primary care clinics.
- Many of them keep on coming to the clinics with the same complaint without proper assessment and treatment.
- Even though majority of them do not have serious disorders and can be managed at health clinic, it is very important not to miss the red flags which could be challenging for the paramedics and medical officers.
- This guideline is made to facilitate the primary health care worker in managing as such cases.

DEFINITION

- Chronic abdominal pain is defined as **continuous or intermittent** abdominal discomfort lasting for **3 to 6 months** (1)(2).

- The pain can be originated from any system, such as the genitourinary, gastrointestinal, and gynaecological tracts (1).

CLASSIFICATION

- Chronic abdominal pain is divided into
  - **Organic**
    - have clear anatomical, physiological, or metabolic cause and can also arise from the abdominal wall, nerve or fascia (3).
  - **Functional**.
    - Common but more challenging condition when no clear source of pain, despite thorough investigations (3).

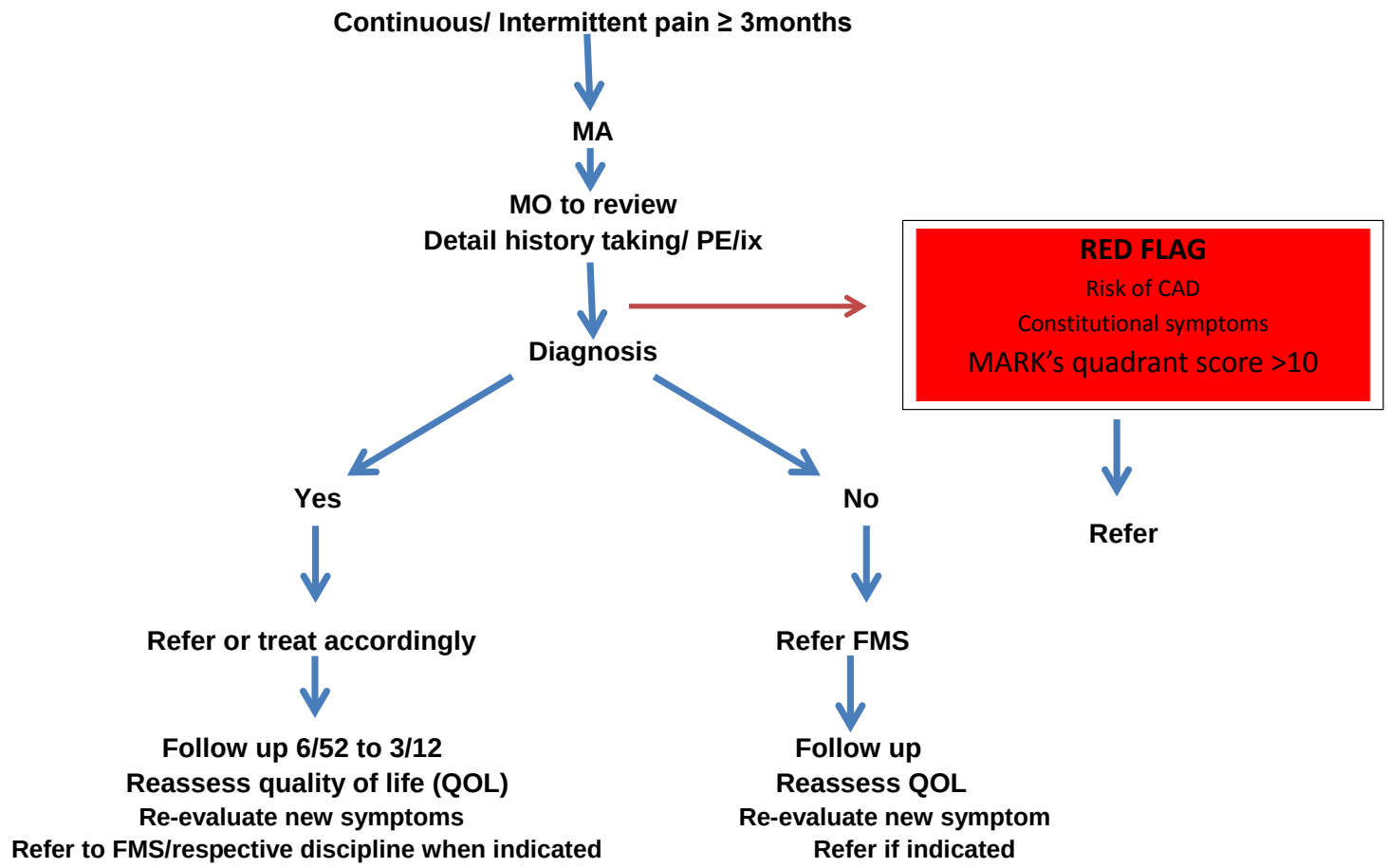
EPIDEMIOLOGY

- The incidence of unspecified abdominal pain is 22.9 per 1000 person-years (3).
- A cross-sectional survey among adult population reported as high as 25% have abdominal pain at one time (3).
- In a systemic review of chronic abdominal pain in children and adolescents, the prevalence rate ranged is 4 to 53% (4).

CHALLENGES

- Diagnosis and management of patients with chronic abdominal pain is often challenging at primary care setting.
- Factors that contribute to this include;
  1. poor sensitivity of the history and physical examination,
  2. A broad differential diagnosis that crosses several specialties, and an often negative diagnostic work (2).

Flow chart management of chronic abdominal pain in primary care



MARK's Quadrant

MARK's Quadrant

Quadrant A: Dyspepsia		**Quadrant B: Recent Upper GI Bleeding (Including melena)**	
	Score		Score
Intermittent, more than 1 year	1	Occurred more than 1 year ago	1
Intermittent, less than 1 year	3	Occurred less than 1 year	5
Persistent for 2 weeks	5		
Quadrant C: Modified Alarm Symptoms	Score	**Quadrant D:Age**	Score
Anaemia	3		
Epigastric mass/fullness	3	Less than 40 years	2
Persistent vomiting (>2 weeks)	3	40-49 years	3
Significant loss of weight	3	≥ 50 years	5
Dysphagia	5		
Eating satiety/Eating less over a period of time	3		
		Total score	

A score of 10 and above is high risk for gastric cancer and warrant an upper endoscope

COMMON CAUSES

- The causes of chronic abdominal pain are many
- Common differential diagnoses of chronic abdominal pain for adult (≥18 year old) that can be managed at primary care are as below:

1. Chronic abdominal wall pain
2. Functional dyspepsia
3. GERD
4. Peptic ulcer disease (PUD)
5. Irritable bowel syndrome (IBS)
6. Chronic cholelithiasis
7. Nephrolithiasis
8. Interstitial Cystitis (IC)/Painful bladder syndrome (PBS)
9. Primary dysmenorrhea
10. Pelvic inflammatory disease (PID)

- Any other diagnosis being made must be referred to the respective discipline or to discuss with Family Medicine Specialist.

Functional Dyspepsia

- Prevalence:
  - 10-30% (7)
- Clinical Features
  - ROME III criteria : ≥ 1 out of 4 symptoms, Duration: at least 12 weeks with no evidence of structural disease
  - Nausea, bloating and belching may present (7)
- PE/Ix :
  - Normal
- Management
  - Diet advice & avoid NSAID
  - Antacids (7)
  - H2Receptors antagonist/ PPI (Epigastric pain syndromes) (7)
  - Prokinetics for 4 weeks (Post-prandial distress syndrome) (7)
  - Refer surgical or gastro if (7)
    - No response to treatment for 4 weeks
    - Alarm symptoms

GERD

- Prevalence
  - SEA and West Asia: 6.3-18.3% (8)
- Clinical Features
  - Typical sx: Heart burn, regurgitation, dysphagia (9), (10)
  - Atypical sx: dyspepsia, epigastric pain, nausea, bloating and belching may be indicative to GERD (9)
  - Extra oesophageal symptoms: chronic cough, asthma and chronic laryngitis
- PE/Ix
  - Normal
  - Investigations – not needed (11)

GERD

- Management
  - Exlude cardiac cause in patients with chest pain(9)
  - Extra oesophageal sx ; need careful evaluation for non-GERD causes (9)
  - Non-pharmaco therapy
    - Lifestyle modification
    - Avoid drugs (11): anticholinergics, Theophylline, CCB.
    - If taking Tetracycline, Slow Release Potassium, Iron sulphates, Corticosteroids, NSAIDS-avoid taking dry, use ample fluids
  - Pharmacotherapy
    - PPI for 8 weeks
  - Refer for endoscopy if
    - Failed treatment with PPI after 2 months
    - Presence of red flag (alarm symptoms or MARK's quadrant scoring >10)
    - High risk group
    - History of Barret's oesophagus
    - Dysphagia

Peptic Ulcer Disease (PUD)

- Prevalence
  - 1-year prevalence based on physician diagnosis was 0.12–1.50% (13)
- Clinical Features
  - History of smoking, NSAIDS, Aspirin, H.pylori infection (14)
  - Epigastric pain; gnawing or burning sensation especially after meal (14)
  - Fullness, bloatedness, nausea, vomit a few hours after meal, dyspepsia, heartburn, chest discomfort, hematemesis, melena or symptoms of anaemia (14)

Peptic Ulcer Disease (PUD)

- PE/Ix
  - Epigastric tenderness, melena
  - FBC for anaemia
- Management
  - Stop NSAIDS (15), Aspirin
  - **Prevention:**
    - If NSAIDS is needed, choose COX-2 selective inhibitor at the lowest efficacy dose plus daily PPI(16)
    - If Aspirin is needed as secondary CVD prevention, consider long term PPI therapy (16)
    - If Aspirin was given for primary prevention, antiplatelet should not be resumed
  - Quit smoking
  - Offer full dose PPI eg. Omeprazole 20mg OD or H2RA therapy for 8 weeks (15)
  - Refer SOPD/ Gastro for OGDS
  - Red flag: Anemia, Early satiety, Unexplained weight loss, dysphagia/ odynophagia, recurrent vomiting, Family history GI cancer

4. Irritable Bowel Syndrome (IBS)

- Prevalence: 7-10% in the world (17)
- Clinical Features
  - Diagnosis-ROME III Criteria: Recurrent abdominal pain or discomfort at least 3 days per month in the last 3 months associated with ≥ 2 of the following (18):
    - Improvement with defecations
    - Onset associated with a change in frequency of stool
    - Onset associated with a change in form(appearance) of stool
  - Should be accompanied by at least 2 of the following 4 symptoms:(19)
    - Altered stool passage(straining, urgency, incomplete evacuation)
    - Abdominal bloating, distension, tension or hardness
    - Symptom made worse by eating
    - Passage of mucus
  - Age onset 20-30y (19)

Irritable Bowel Syndrome

- PE/Ix
  - Overall healthy or maybe tense or anxious
  - May have sigmoid tenderness or palpable sigmoid cord (20)
  - No Investigations for age <50year old with typical IBS sign and symptoms (19)
- Management
  - Lifestyle advice : Increase physical activity & Dietary advice (19)
  - Pharmacotherapy (19):
    - Consider antispasmodic agent; to take as required
    - Laxative for constipation, not lactulose
    - Loperamide for diarrhea
    - Antidepressant if all above not help
  - Refer surgical or gastro if having alarm features such as:
    - LOW
    - Anemia
    - Family H/O GI organic disease eg IBD, Colon Cancer

Nephrolithiasis

- Clinical Features
  - History of recurrent renal colic pain-severe pain from flank and radiate inferiorly and anteriorly
  - History of urinary tract calculi
  - UTI
  - Haematuria
  - Urinary symptoms – stones lodged at ureterovesical junction(frequency, dysuria), stones lodged at intramural ureter(suprapubic pain, frequency, urgency, dysuria, stranguria, pain tip of penis)
  - Asymptomatic in small, non-obstructing stone or staghorn calculi
  - Family history of renal calculi (25)

Nephrolithiasis

- PE/Ix
  - Abdomen – unremarkable
  - UFEME, Renal profile, Serum Uric Acid
  - Serum calcium/ phosphate and ± Serum parathyroid –
  - Plain KUB Xray
  - KUB USG
  - CT Urogram (CTU)-indicated if USG and KUB x rays negative for stone despite strong suspicion of urolithiasis/ persistent haematuria
- Management
  - Dietary modifications-increase fluid intake (8 glasses/day), Low salt and protein diet
  - Dietary calcium: 600 – 800mg/day
  - Medications: Alkalizing agent
  - Allopurinol if evidence of uric acid stones
  - Refer urologist if
    - Stones >6 mm (25)
    - Deranged renal profile(urgent referral)
    - USG showed obstructive uropathy (urgent referral)

Interstitial Cystitis (IC)

- Prevalence:
  - In women were 18.1 per 100,000.
  - Both sexes were 10.6 cases per 100,000 (26)
- Clinical Features
  - Suprapubic pain
  - Associated with urinary symptoms more than 6 weeks without any infection or other clear cause
  - Dyspareunia in women
  - For male, pain during orgasm or after sex.
  - Some people with IC have other health issues such as irritable bowel syndrome, fibromyalgia, and other pain syndromes.

Interstitial Cystitis (IC)

- PE/Ix
  - Suprapubic tenderness
  - STI screening & Urinalysis: normal, Urine culture: no growth
  - KUB x ray, USG ± CTU – no evidence of urinary calculi
- Management
  - So far no cure
  - Refer urologist to exclude malignancy
  - Treatment based on symptoms and monitoring pain and quality of life.
  - Lifestyle modification
    - Exercise: Gentle stretching exercise, bladder training, physical therapy
    - Stress management
    - Avoid certain food that trigger the symptoms
    - Quit smoking
  - Outpatient management:
    - NSAIDS – Aspirin, Ibuprofen
    - TCA: Amitriptyline
    - Severe pain – narcotic analgesics eg acetaminophen with codein
  - TENS

Primary Dysmenorhea

- 90% common cause of dysmenorhea
- Clinical features
  - Onset menarche , Duration 48-72 hours
  - Cramping or labor like pain
  - Constant lower abdominal pain, radiating to the back or thigh
- PE/Ix
  - Normal pelvic examination
- Management
  - Reassurance
  - Non-medical therapy : High frequency TENS, Acupuncture
  - Medical therapy
    - NSAID
    - Oral contraceptive
    - Depot medroxyprogesterone/ levonogestrel intrauterine system
  - Refer gynae if indication for surgery or suspected secondary cause

Pelvic Inflammatory Disease (PID)

- Prevalence
  - The number of visits to physicians for PID among women aged 15–44 was 39.8% (29)
- Clinical Features
  - History of high risk sexual behaviour
  - History of instrumentation of uterus insertion
  - Abnormal vaginal or cervical discharge
  - Lower abdominal pain
  - Abnormal vaginal bleeding: IMB, PCB, menorrhagia

Pelvic Inflammatory Disease (PID)

- PE/Ix
  - Febrile (>38 °C), lower abdominal tenderness, Adnexal or Cervical motion tenderness
  - Ix: Tests for Gonorrhoea and Chlamydia, FBC
  - Ultrasound, Diagnostic Laparoscopy
- Management
  - Safe sex
  - Empower knowledge on long term complication
  - Appropriate analgesia
  - Broad spectrum antibiotic to cover N.Gonorrhoea, C. Trachomatis and anaerobic infection
  - Referral if diagnosis uncertainty, severe symptoms, presence of a tubo-ovarian abscesses, inability to tolerate an oral regime and pregnancy.(30) (31)

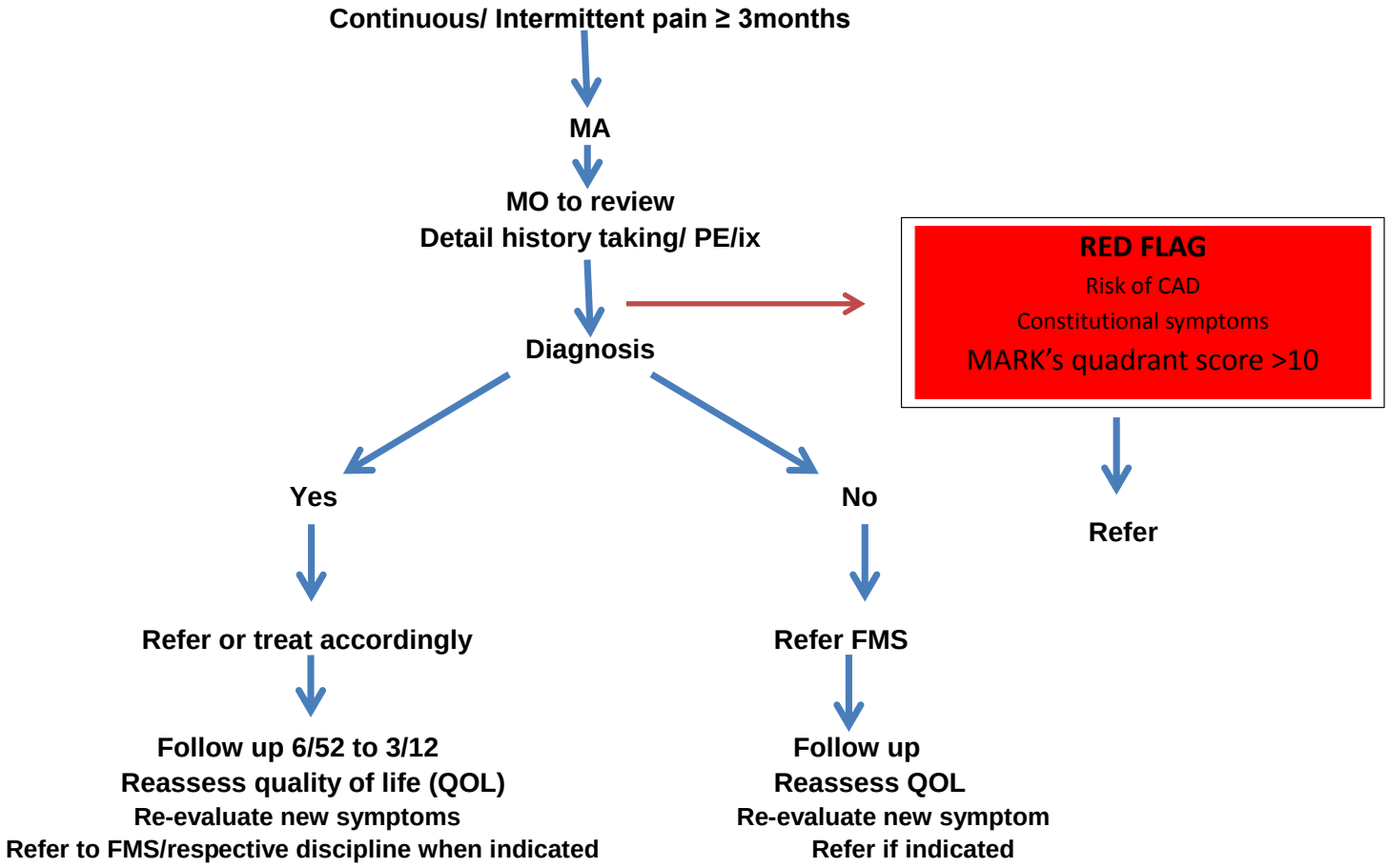
Chronic Abdominal Wall Pain

- Prevalence:
  - 10-90% (5)
- Clinical Features
  - Pain more common @ right side of abdomen
  - Usually sharp to extreme tenderness on upon gentle stroking or pinching.
  - Exacerbated by tight clothing, obesity or post-operative scarring
  - Relief by sitting, lying or relatively frequently by hand-splinting the affected area
  - Aggravated by standing, lifting, stretching, and coughing

Chronic Abdominal Wall Pain

- PE/Ix
  - Positive Carnet's Test
- Management
  - Reassurance
  - Mild pain
    - minimizing activities that aggravate the pain
    - An abdominal binder.
  - For moderate to severe pain:
    - Local nerve blocks or trigger point injections using anaesthetic/ steroid injections.

Flow chart management of chronic abdominal pain in primary care



THANK YOU

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