Dyspepsia & Epigastric Pain

A Clinical Blueprint for Primary Care Assessment, H. pylori Eradication, and Referral Pathways.

Based on current Australian Guidelines (GESA / NHMRC) | Updated May 2026

The National Burden

30–40%

Annual adult prevalence

>20 Million

Annual PBS PPI prescriptions

$1.5–$2 Billion

Annual healthcare cost

Note: Functional dyspepsia accounts for 15-20% of cases; Peptic ulcer disease 5-10%.

The ATSI Disparity Alert

60–80%

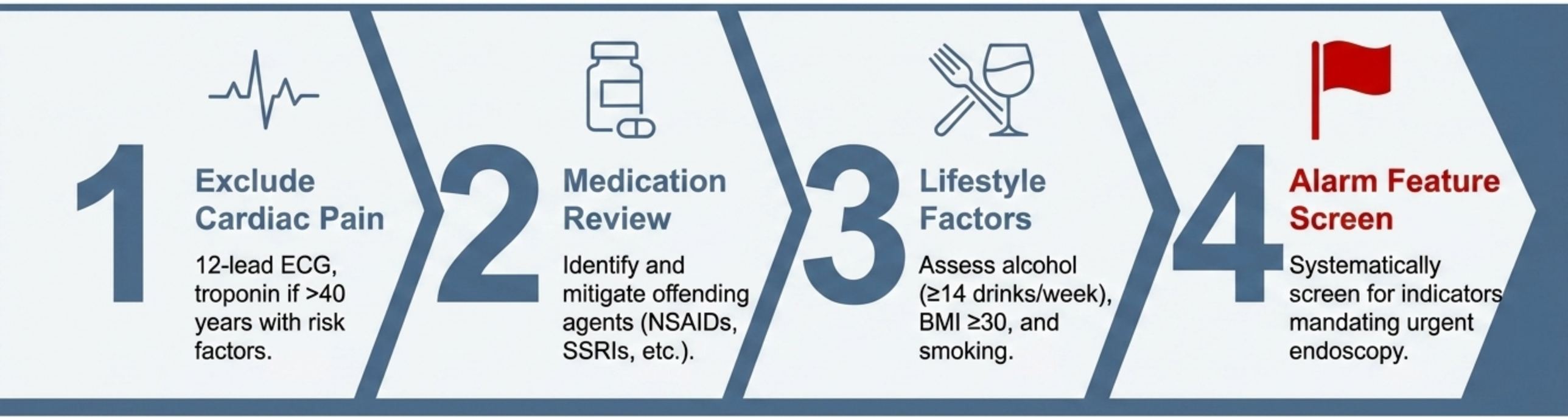
***H. pylori* seroprevalence** in remote communities (vs. 15-20% general population).

1.5–2×

Higher incidence and mortality from gastric cancer.

Clinical Directive: Lower the threshold for investigation and referral; diagnosis often occurs at younger ages with more advanced disease.

The Initial Clinical Encounter



The Critical Safety Step: Exclude Acute Coronary Syndrome

Epigastric or upper abdominal discomfort may represent an inferior myocardial infarction. Do not attribute symptoms to dyspepsia until **cardiac causes are reasonably excluded.**

- [ ] Patient >40 years with cardiovascular risk factors?
- [ ] Pain is pleuritic, exertional, or radiating to jaw/arm?
- [ ] Presence of diabetes, hypertension, dyslipidaemia, or smoking history?

ACTION: Perform a 12-lead ECG and consider troponin measurement immediately if any boxes are checked.

Medication Review: Offending Agents Map

NSAIDs (ibuprofen, naproxen) Mechanism: COX-1 inhibition & direct mucosal injury.	Cease/switch to paracetamol, OR use lowest dose + co-prescribe PPI.
Low-Dose Aspirin (100-300mg) Mechanism: Impairs ulcer healing.	Continue if cardiovascular indication, but ADD PPI for gastroprotection.
Corticosteroids Mechanism: Synergistic mucosal damage with NSAIDs.	Avoid combination; add PPI if concurrent NSAID use is mandatory.
Bisphosphonates Mechanism: Direct oesophageal/gastric irritation.	Ensure strictly correct administration technique (upright, with water).
SSRIs / SNRIs Mechanism: Serotonin-mediated platelet effects increase bleeding risk.	Consider PPI if patient is on concurrent antiplatelet/anticoagulant.

Alarm Features Dashboard

Unintentional Weight Loss

Clinical Significance: >5% in 6 months → Malignancy

Progressive Dysphagia

Clinical Significance: Oesophageal/cardia malignancy or stricture

Persistent Vomiting

Clinical Significance: Gastric outlet obstruction/gastroparesis

GI Bleeding

Clinical Significance: melaena, haematemesis, FOBT+ → Active ulcer, varices

Unexplained Iron-Deficiency Anaemia

Clinical Significance: Occult blood loss

Palpable Abdominal Mass

Clinical Significance: Advanced malignancy/GIST

Age ≥60 with New-Onset Dyspepsia

Clinical Significance: High malignancy risk

ANY ONE FEATURE = DIRECT URGENT ENDOSCOPY (WITHIN 2 WEEKS).

Do not offer empiric PPI or noninvasive *H. pylori* testing.

Triage Matrix: Severity Assessment

Low Risk (Uncomplicated)	Moderate Risk (Persistent/Recurrent)	High Risk (Urgent)
Profile Age <60, no alarm features, mild/intermittent symptoms, normal Hb, no NSAIDs.	**Profile** Age <60, no alarm features BUT symptoms >4 weeks, requires daily PPI, prior H. pylori treatment, or ongoing NSAID use.	**Profile** Any alarm feature OR OR Age ≥60 with new onset. Haemodynamic instability.
Care Setting General Practice.	**Care Setting** General Practice + Early Gastroenterology consideration.	**Care Setting** Urgent Gastroenterology Referral.
Action *H. pylori* Test-and-Treat OR Empiric PPI Trial.	**Action** Investigate and optimize pharmacotherapy.	**Action** Direct to Endoscopy.

PRE-TEST RULE: Stop PPIs ≥2 weeks and Antibiotics ≥4 weeks prior to UBT/SAT to avoid false negatives.

Test Name	Stats	Clinical Role & Pre-test Requirements
^{13}C Urea Breath Test (UBT)	Sens 95–97%, Spec 95–98%	Gold standard noninvasive test. MBS Item 12342. Requires fasting ≥4 hours.
Stool Antigen Test (SAT - Monoclonal EIA)	Sens 94–97%, Spec 95–97%	Preferred in paediatric patients and remote areas. Less affected by concurrent PPI use than UBT.
H. pylori IgG Serology	Sens 85–95%, Spec 70–85%	**DO NOT USE FOR TEST-OF-CURE** Cannot distinguish active from past infection. Use only if UBT/SAT unavailable.

First-Line *H. pylori* Eradication: 14-Day Standard Triple Therapy

Omeprazole 20mg	Amoxicillin 1g	Clarithromycin 500mg
Adult dose: 20mg PO BD before meals	**Adult dose:** 1g PO BD	**Adult dose:** 500mg PO BD
Renal: No adjustment	**Renal:** eGFR 10-30 max 500mg TDS; <10 500mg BD	**Renal:** eGFR <30 reduce to 250mg BD
		Hepatic: Caution
PBS: General Benefit	**PBS:** General Benefit	**PBS:** General Benefit

⚠ **Alert:** Urban Australian clarithromycin resistance is 10–20%.

MANDATORY ACTION: Confirm eradication (Test of Cure) via UBT/SAT at ≥4 weeks post-treatment and ≥2 weeks off PPI.

Second-Line *H. pylori* Eradication: 14-Day Bismuth Quadruple Therapy

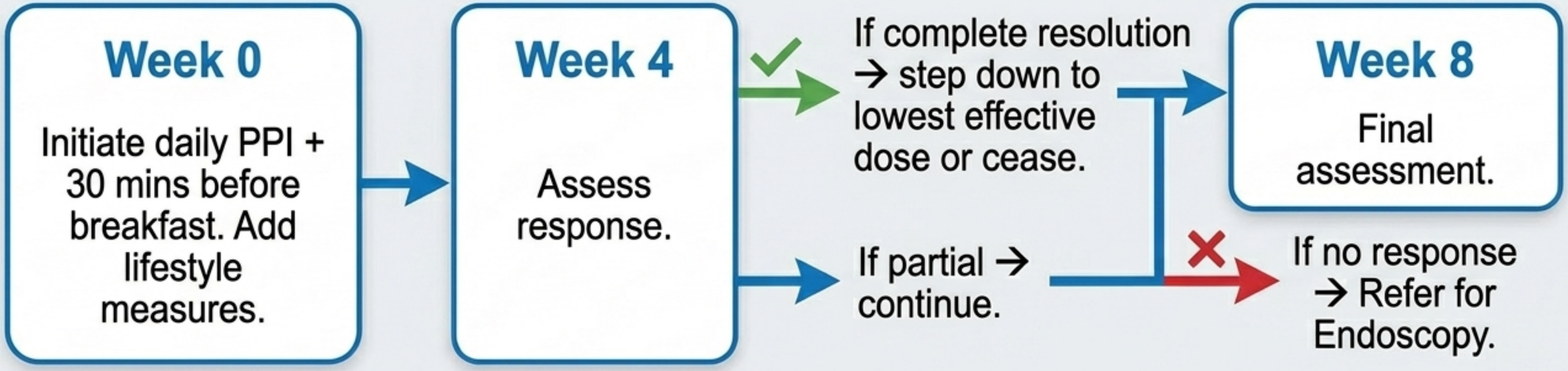
Bismuth Subsalicylate/Subcitrate	Metronidazole 400mg	Tetracycline 500mg
Adult dose: 120mg elemental QID or 240mg BD	**Adult dose:** 400mg PO TDS	**Adult dose:** 500mg PO QID
	Renal: Reduce frequency in severe impairment	**Renal:** Avoid in severe impairment due to accumulation
PBS: Authority Required	**PBS:** General Benefit	**PBS:** General Benefit

Note: If first and second-line fail, consider culture-guided therapy via referral to reference laboratories.

Empiric PPI Trial

Target Patient: Age <60, no alarm features, *H. pylori* negative.

Pantoprazole 40mg daily	Omeprazole 20mg daily	Esomeprazole 20mg daily



Clinical Warning: Avoid long-term (>1 year) unreviewed use due to risk of *C. diff*, hypomagnesaemia, B12 deficiency, and fractures.

Escalation: Endoscopy (OGD) Referral Timeframes

Clinical Indication	Urgency & Timeframe
Any alarm feature	**URGENT** → Within 2 weeks
New-onset dyspepsia age ≥60	**URGENT** → Within 2–4 weeks
Symptoms persist/relapse post *H. pylori* eradication + adequate PPI trial	**SEMI-URGENT** → Within 4–6 weeks
Failure to respond to 8-week empiric PPI trial	**SEMI-URGENT** → Within 4–8 weeks
Recurrent dyspepsia requiring repeated PPIs (>2/year)	**ROUTINE** → Within 8–12 weeks

Diagnostic Definition: If endoscopy is completely normal, the diagnosis defaults to Functional Dyspepsia (Rome IV criteria).

The Functional Patient

Accounts for 60-70% of normal endoscopies.

Rome IV criteria:


Bothersome postprandial fullness


Early satiation


Epigastric pain/burning


With **NO** structural disease

Second-Line Pharmacotherapy

Amitriptyline (Low-dose TCA)


10mg nocte, titrate to 25-50mg over 4-6 weeks. Duration 8-12 weeks min.

Domperidone 10mg (Prokinetic)


10mg TDS before meals. Duration 4-8 weeks.


ALERT: Associated with QT prolongation/arrhythmias. Avoid if QTc >470 ms, age >60, or cardiac disease. ECG monitoring recommended.

Special Populations: Pathway Deviations

Pregnancy

- DO NOT test/treat *H. pylori* (regimens are teratogenic).
- Use lifestyle + famotidine 20mg BD or PPI (Category B3).

Paediatrics

- Functional dyspepsia most common >8 yrs.
- Use weight-based dosing.
- Never use serology.

Elderly ≥65

- Direct-to-endoscopy for new-onset ≥60.
- High risk of silent GI bleeding (check FBE/Iron).
- Taper PPIs to avoid rebound acid.

Renal Impairment

- Pantoprazole preferred.
- Adjust Amoxicillin.
- Tetracycline contraindicated if eGFR <30.
- Monitor magnesium on long-term PPI.

Hepatic Impairment

- Reduce PPI dose by 50% in Child-Pugh C (risk of SBP).
- Caution with Clarithromycin.
- Avoid Metronidazole in severe disease.

Immunocompromised

- Consider CMV, HSV, and candidiasis.
- Clarithromycin heavily interacts with calcineurin inhibitors and antiretrovirals.

ATSI Clinical Adaptations

Altered Diagnostic Thresholds

Due to 1.5-2x higher gastric cancer incidence, lower the endoscopy referral threshold to ≥50 or ≥55 years for new-onset dyspepsia.

Remote Testing Logistics

UBT is often unavailable.

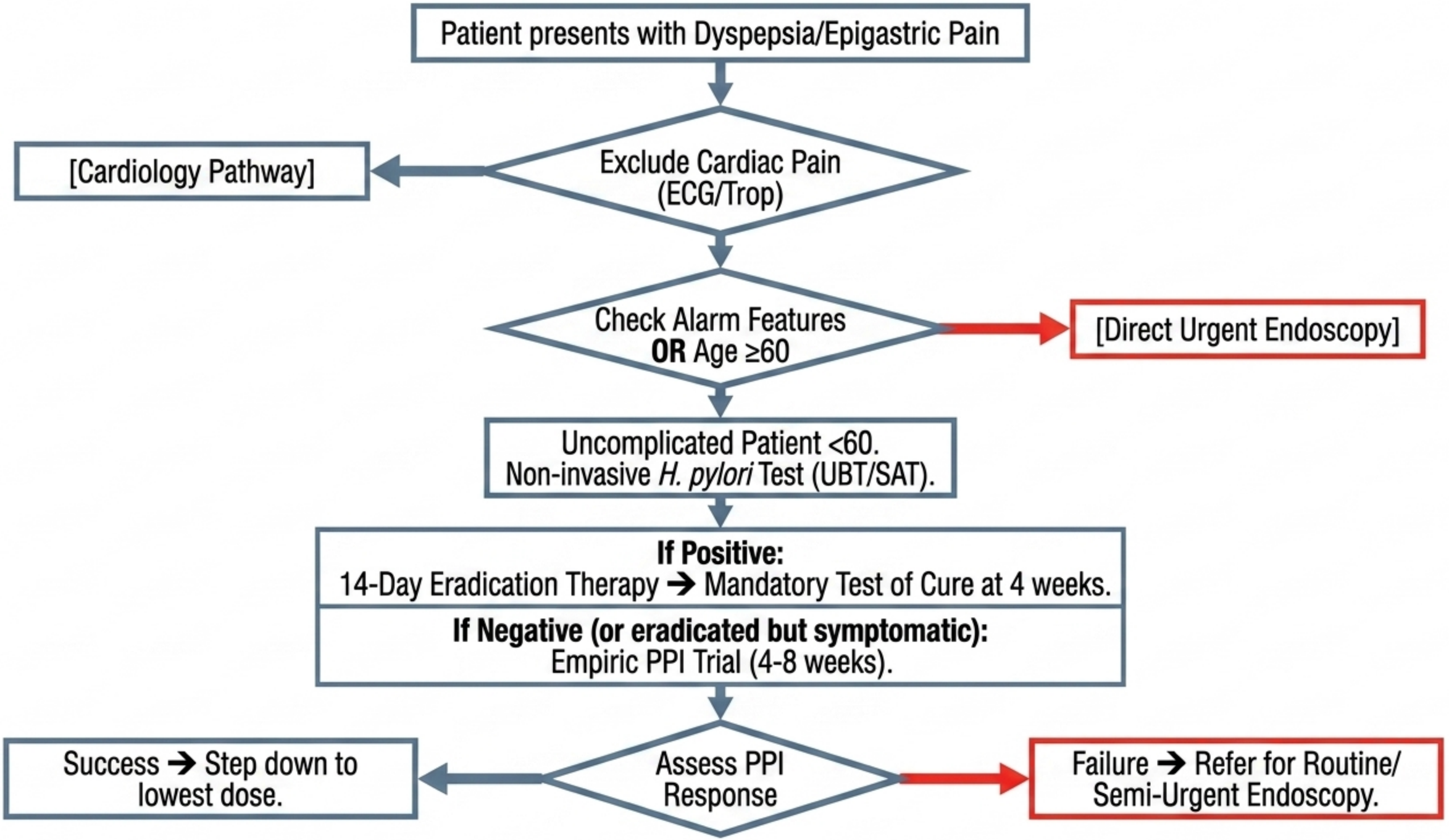
Stool Antigen Test (SAT) is the preferred practical choice (cold transport viable).

If serology is used, mandatory follow-up UBT/SAT is required when accessible.

Overcoming Treatment Barriers

14-day multidrug regimens face adherence challenges. Utilize blister packs (Webster-paks), RAAHS medication management programs, and Closing the PBS co-payment reduction.

Expect high reinfection rates (10-20%/year).


Patient presents with Dyspepsia/Epigastric Pain
Exclude Cardiac Pain (ECG/Trop)
[Cardiology Pathway]
Check Alarm Features OR Age ≥60
[Direct Urgent Endoscopy]
Uncomplicated Patient <60. Non-invasive H. pylori Test (UBT/SAT).
If Positive:
14-Day Eradication Therapy → Mandatory Test of Cure at 4 weeks.
If Negative (or eradicated but symptomatic):
Empiric PPI Trial (4-8 weeks).
Assess PPI Response
Success → Step down to lowest dose.
Failure → Refer for Routine/ Semi-Urgent Endoscopy.

1. Never attribute epigastric pain to dyspepsia without first considering cardiovascular risk.

2. A single alarm feature mandates direct endoscopy; do not delay with empiric trials.

3. Serology cannot prove *H. pylori* eradication; mandatory test-of-cure requires UBT or SAT.

4. PPIs should be prescribed as a defined 4-to-8-week trial, not an indefinite default.

References:
GESA Clinical Update: Dyspepsia and *H. pylori* (2023).
NHMRC Clinical Practice Guideline for Dyspepsia (2020).
Maastricht VI/Florence Consensus Report (2022).