

Functional Dyspepsia

Dion Levin

2023

Functional Dyspepsia

Functional Dyspepsia (FD)

Functional Dyspepsia

Bothersome

Epigastric pain



Functional Dyspepsia (FD)

Functional Dyspepsia

Bothersome

Epigastric pain

Epigastric burning



Functional Dyspepsia

Bothersome

Epigastric pain

Epigastric burning



Early satiety

Functional Dyspepsia

Bothersome

Epigastric pain

Epigastric burning



FD

Early satiety

Post prandial fullness

Functional Dyspepsia

Bothersome = severe enough to affect usual activity or finishing a regular sized meal

Epigastric pain

Epigastric burning



Early satiety

Post prandial fullness

Functional Dyspepsia

Bothersome

Epigastric pain

Epigastric burning



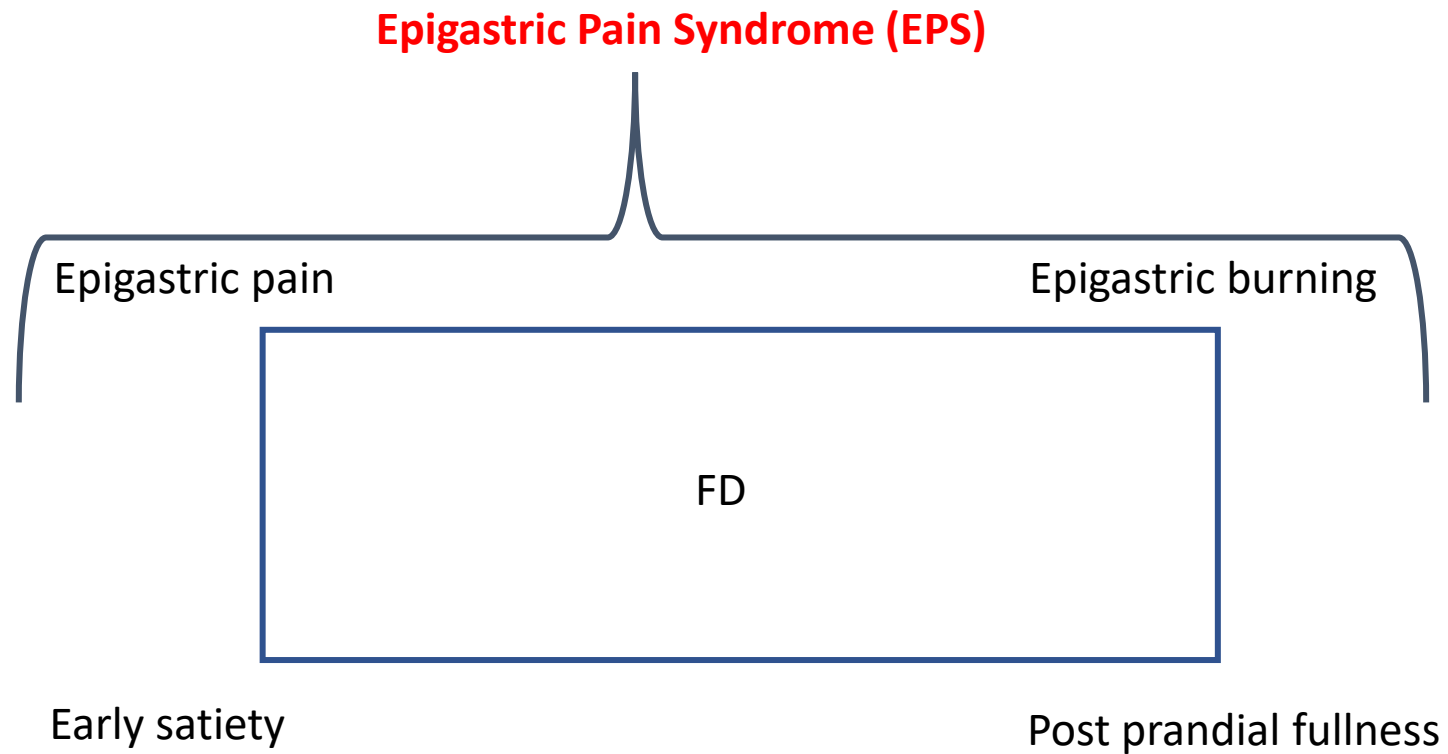
FD

Early satiety

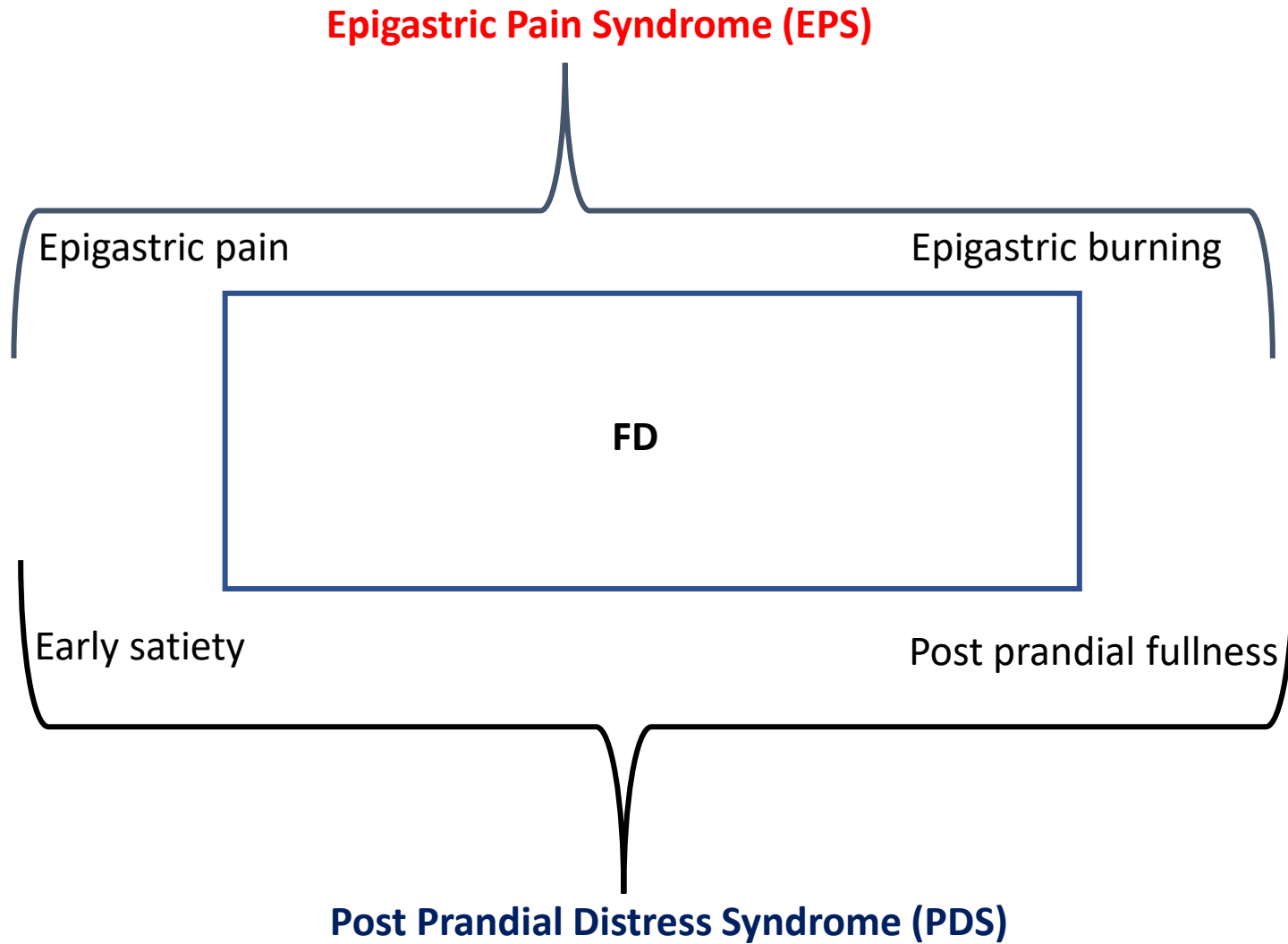
Post prandial fullness

No evidence of structural, organic or metabolic disease

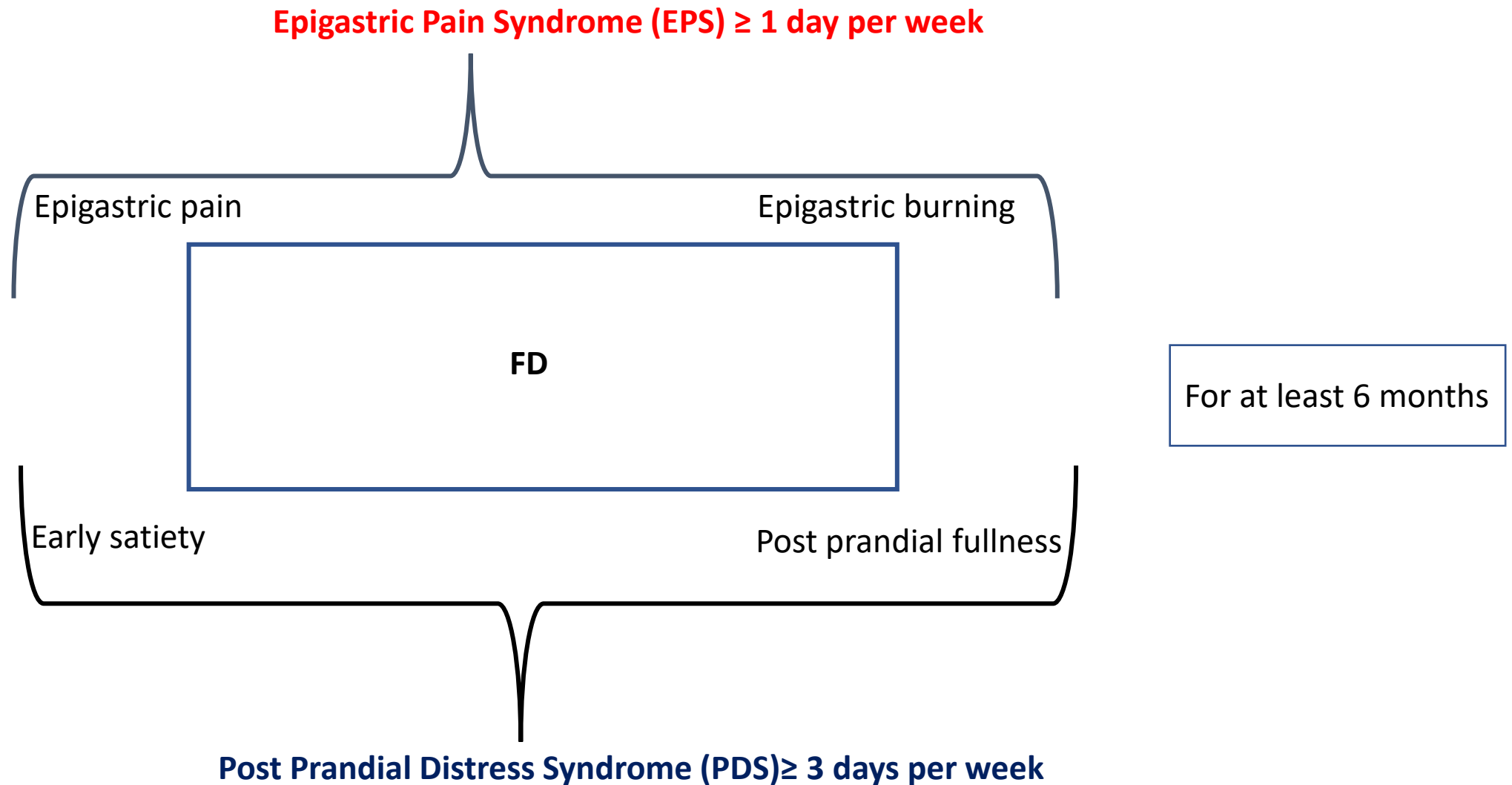
Functional Dyspepsia



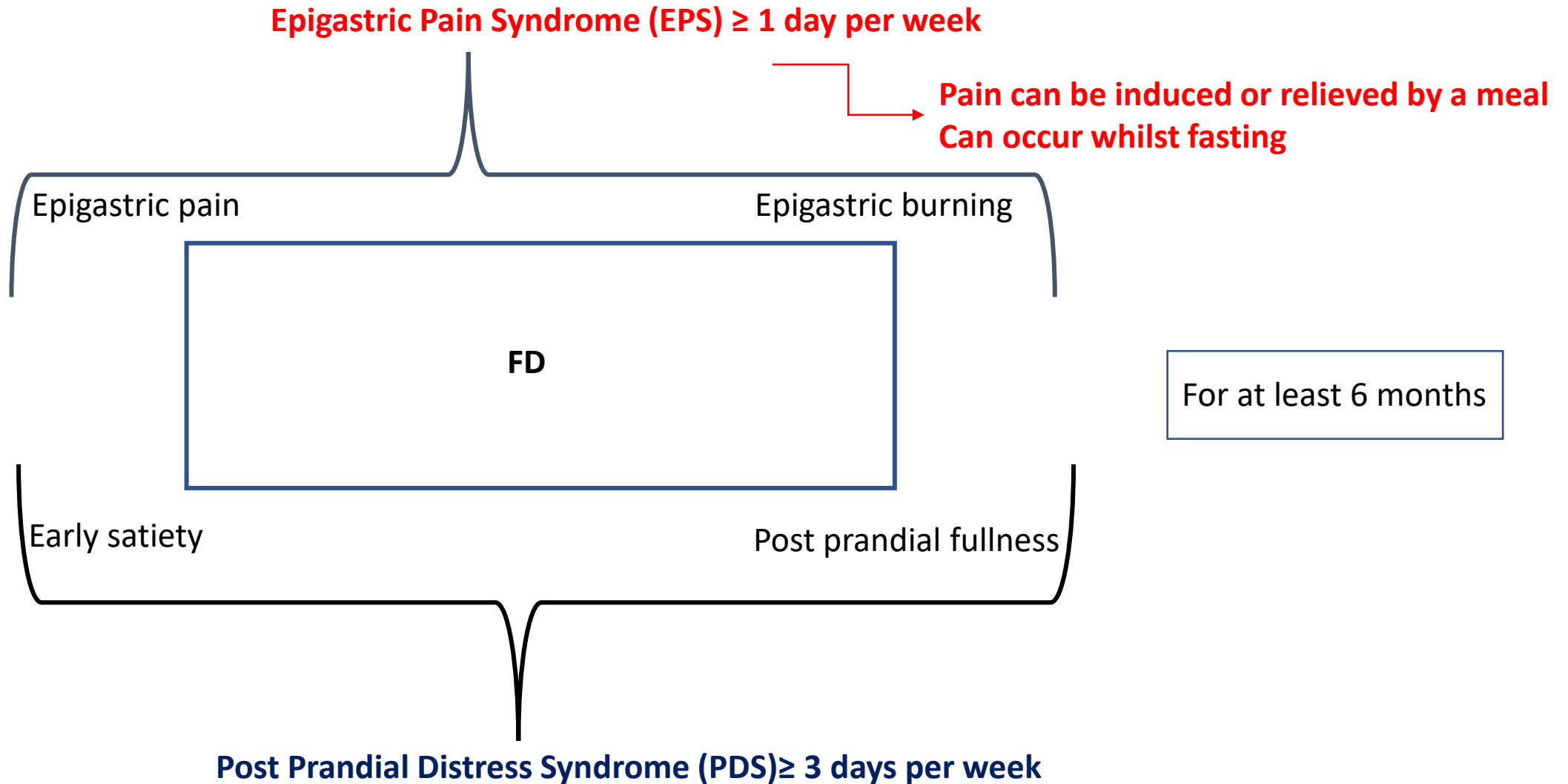
Functional Dyspepsia



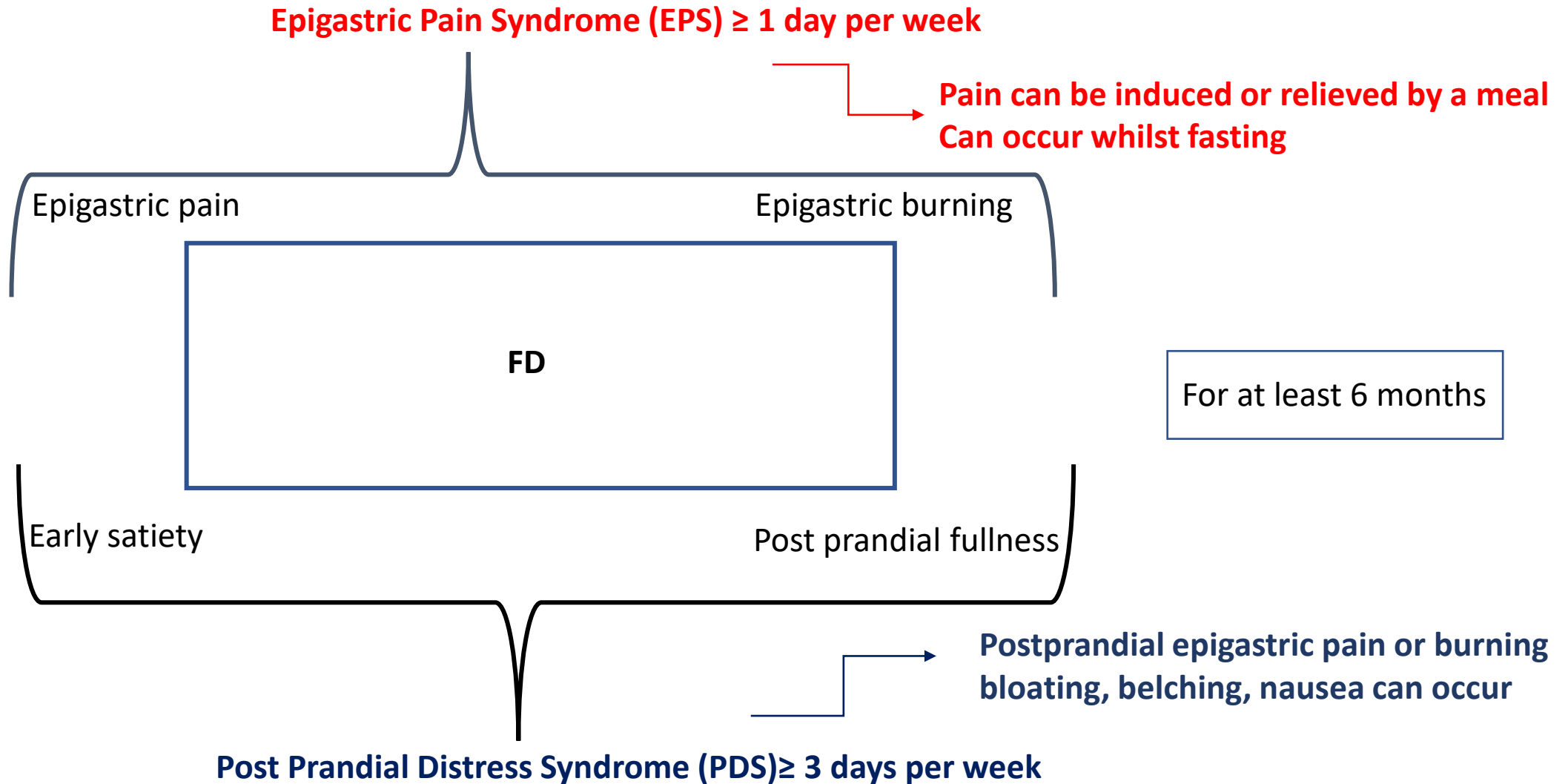
Functional Dyspepsia



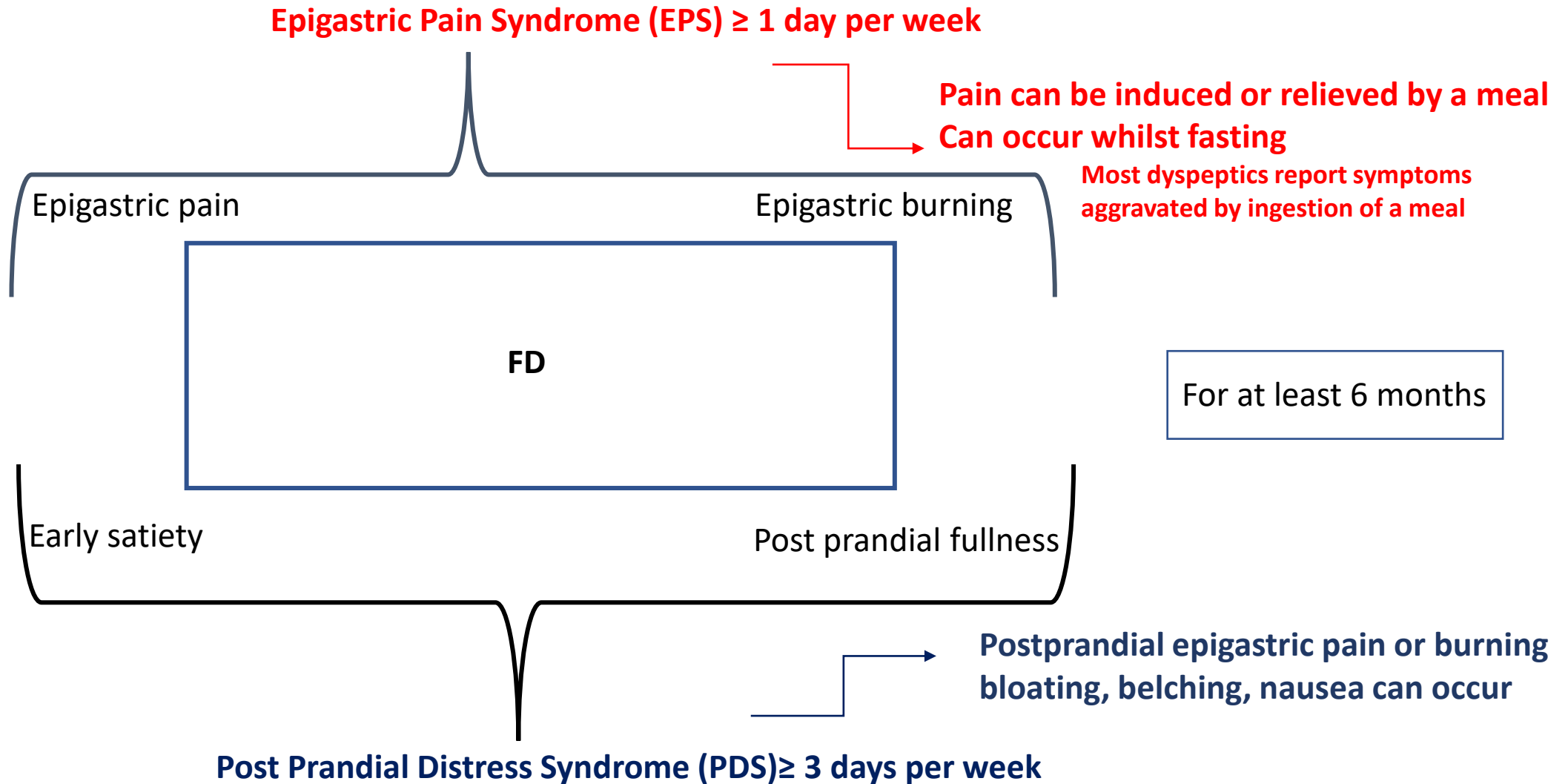
Functional Dyspepsia



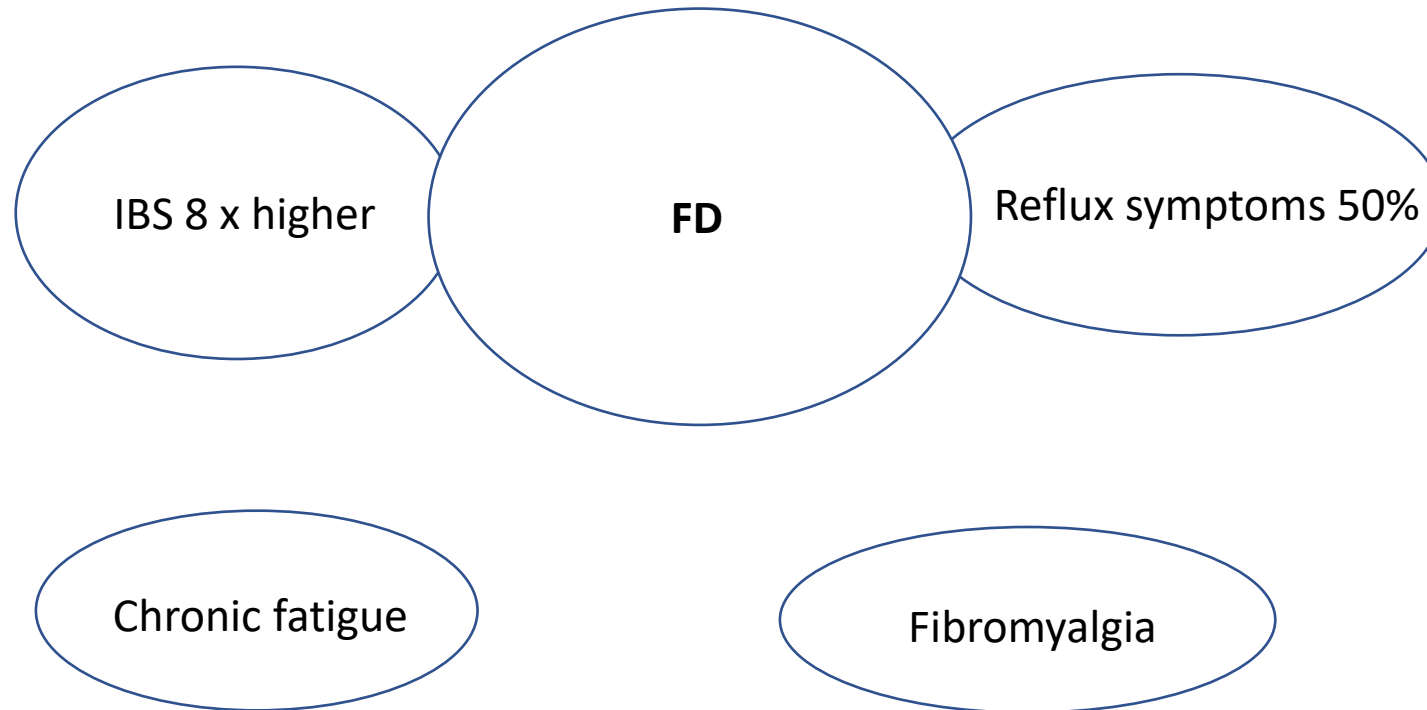
Functional Dyspepsia



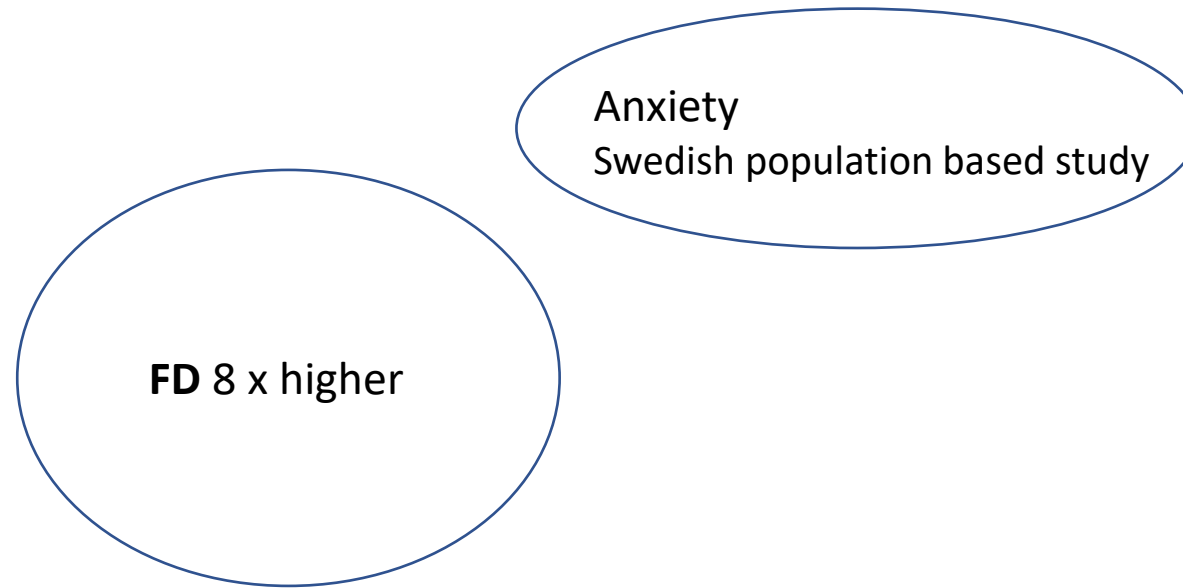
Functional Dyspepsia



Functional Dyspepsia



Functional Dyspepsia

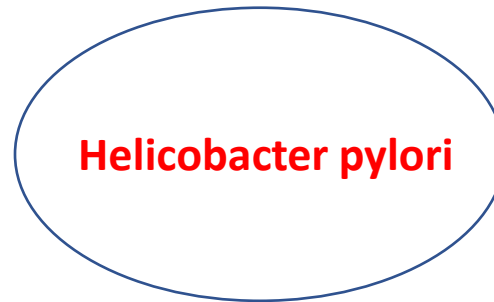
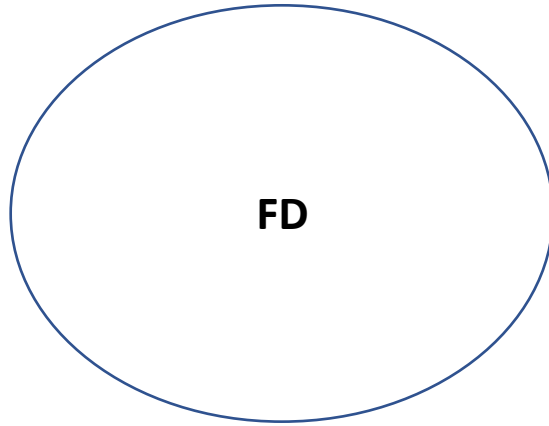


Functional Dyspepsia

Post Acute GI-infection
19 study meta-analyses

FD 3 x higher
(6 months after GI-i)

Functional Dyspepsia



Functional Dyspepsia



FD



Helicobacter pylori

NNT to cure symptoms: 14

NNT symptom improvement: 9

29 RCT 6800 GUT 2022

Functional Dyspepsia



**Impaired gastric accommodation
Impaired gastric emptying
"Antral overload"**

Functional Dyspepsia

Visceral Hypersensitivity (mechanical (distension) or chemical (impaired duodenal acid clearance))



**Impaired gastric accommodation
Impaired gastric emptying
"Antral overload"**

Functional Dyspepsia

Visceral Hypersensitivity (mechanical (distension) or chemical (impaired duodenal acid clearance))

Epigastric pain

Epigastric burning



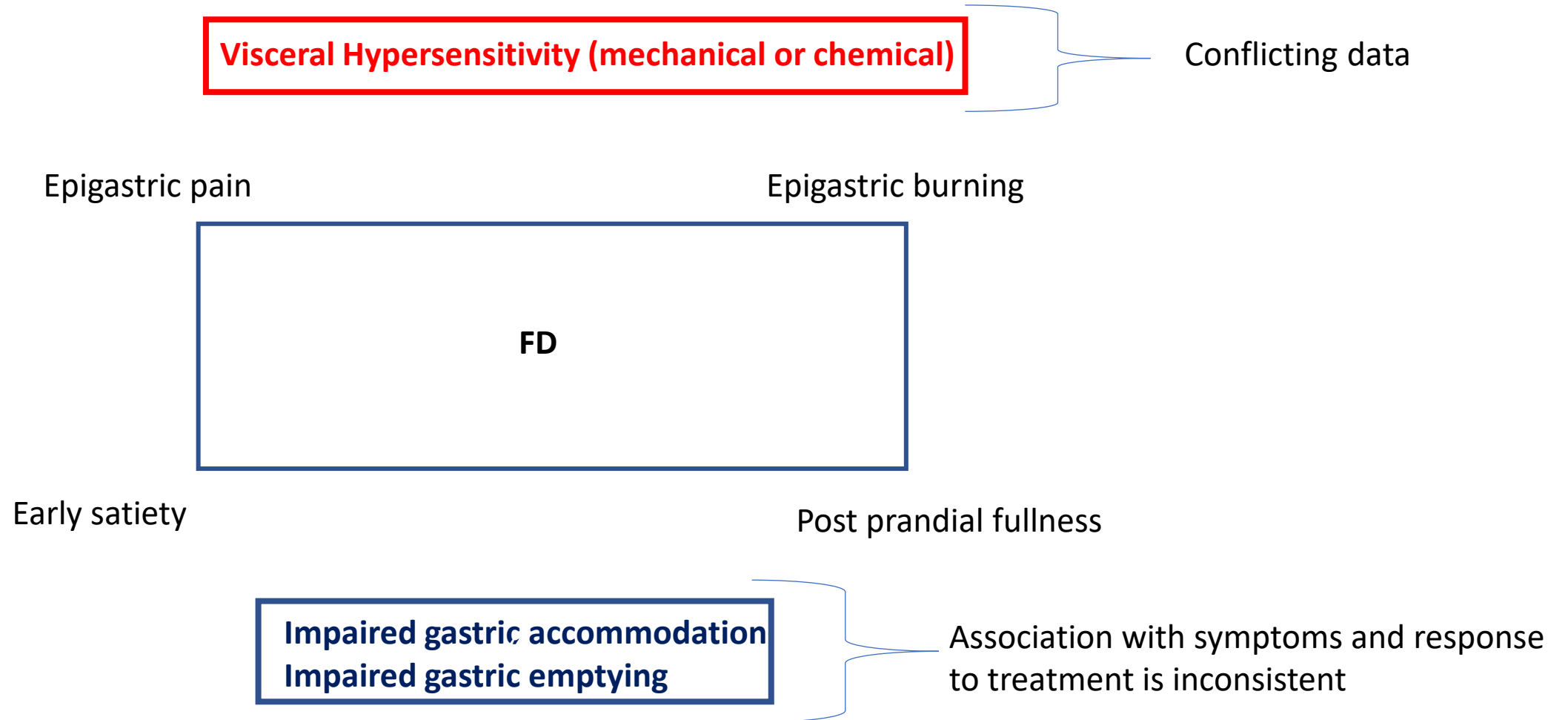
Early satiety

Post prandial fullness

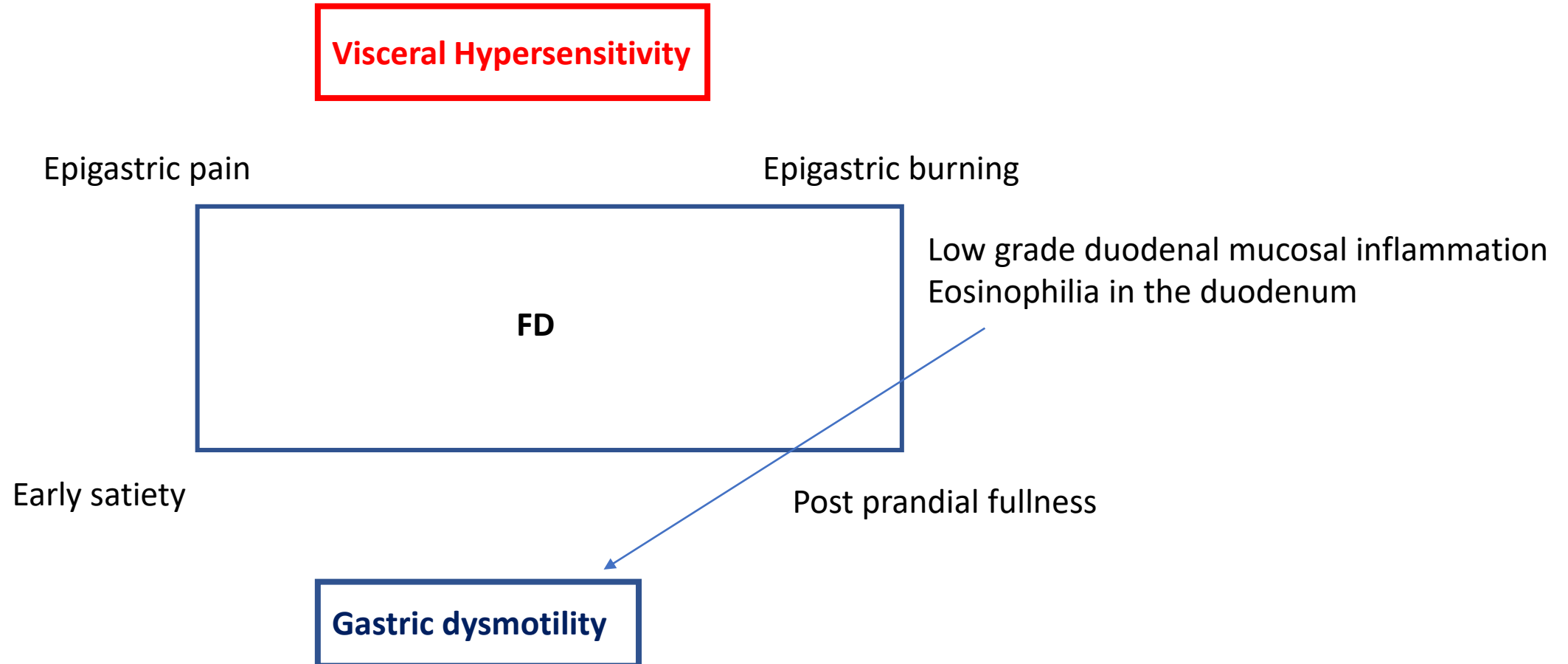
**Impaired gastric accommodation
Impaired gastric emptying**

Association with symptoms and response to treatment is inconsistent

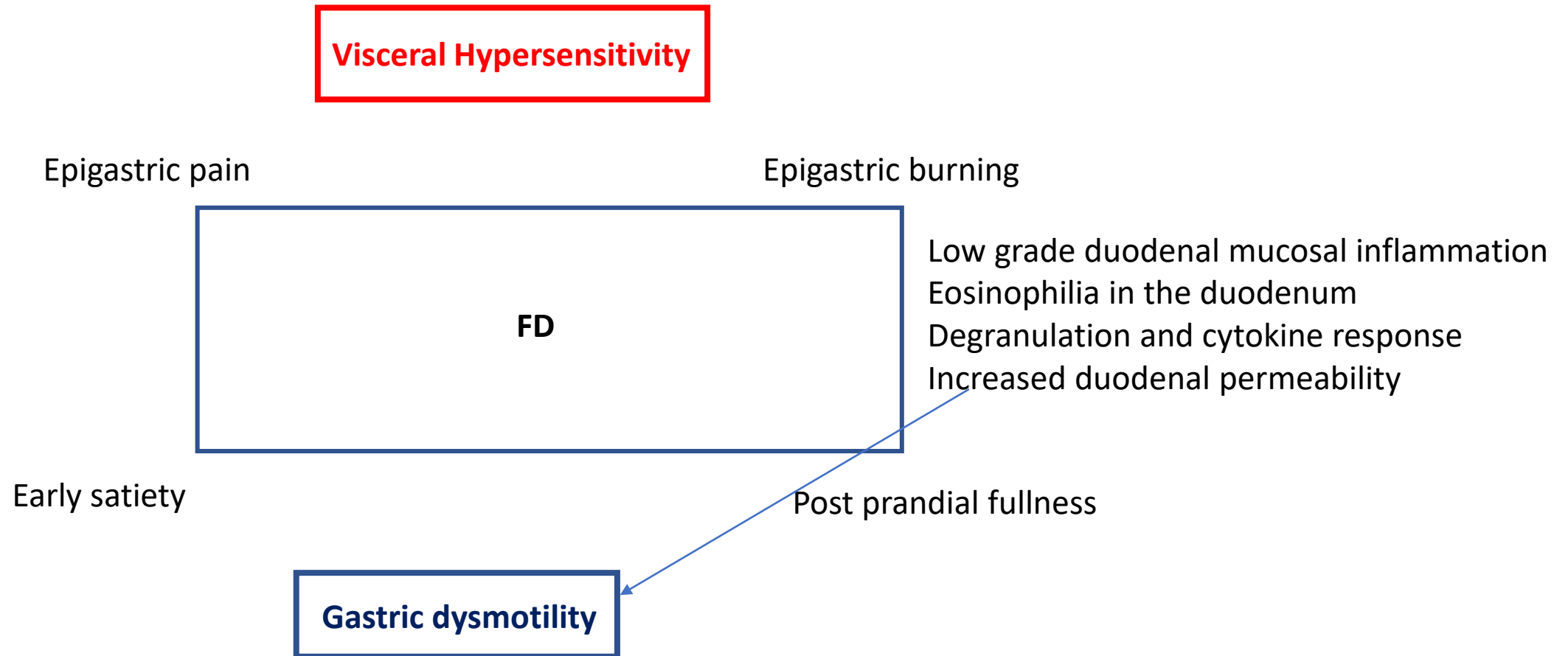
Functional Dyspepsia



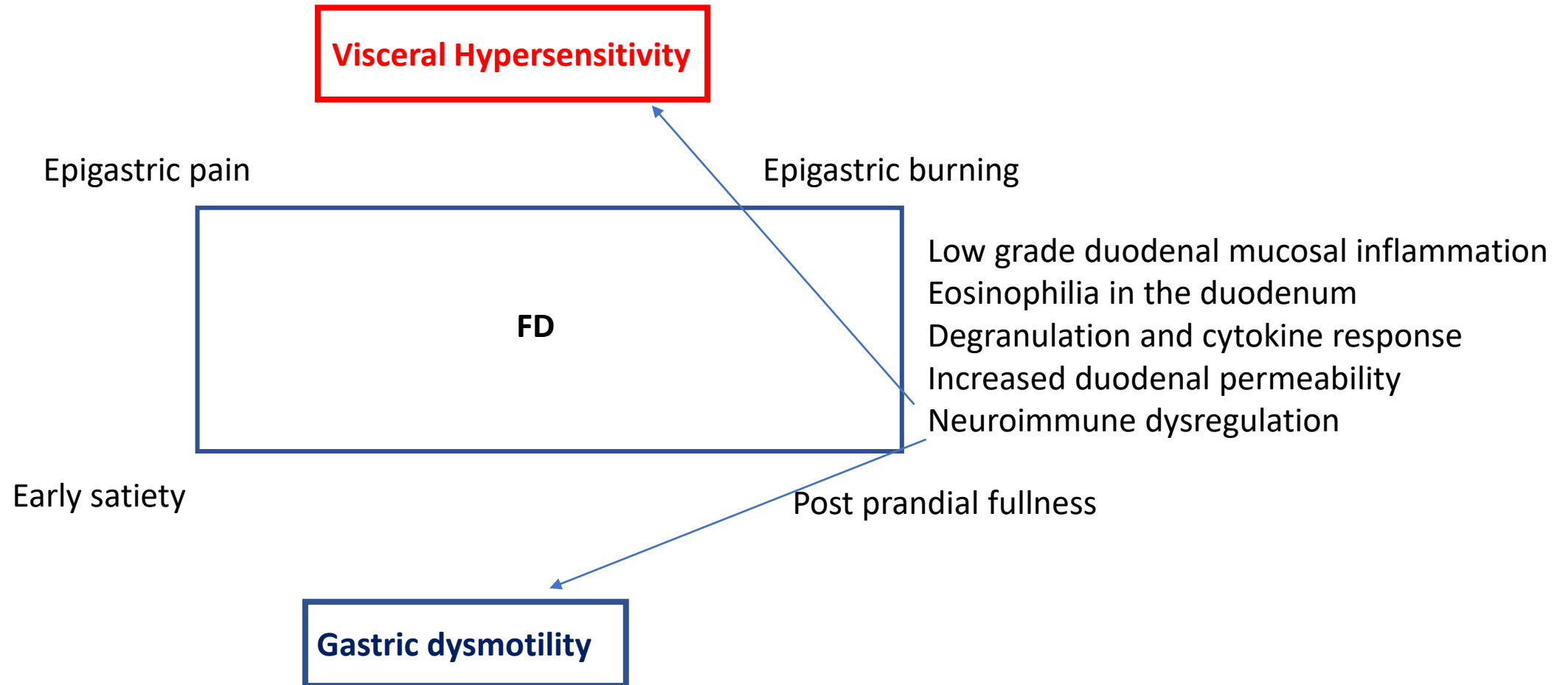
Functional Dyspepsia



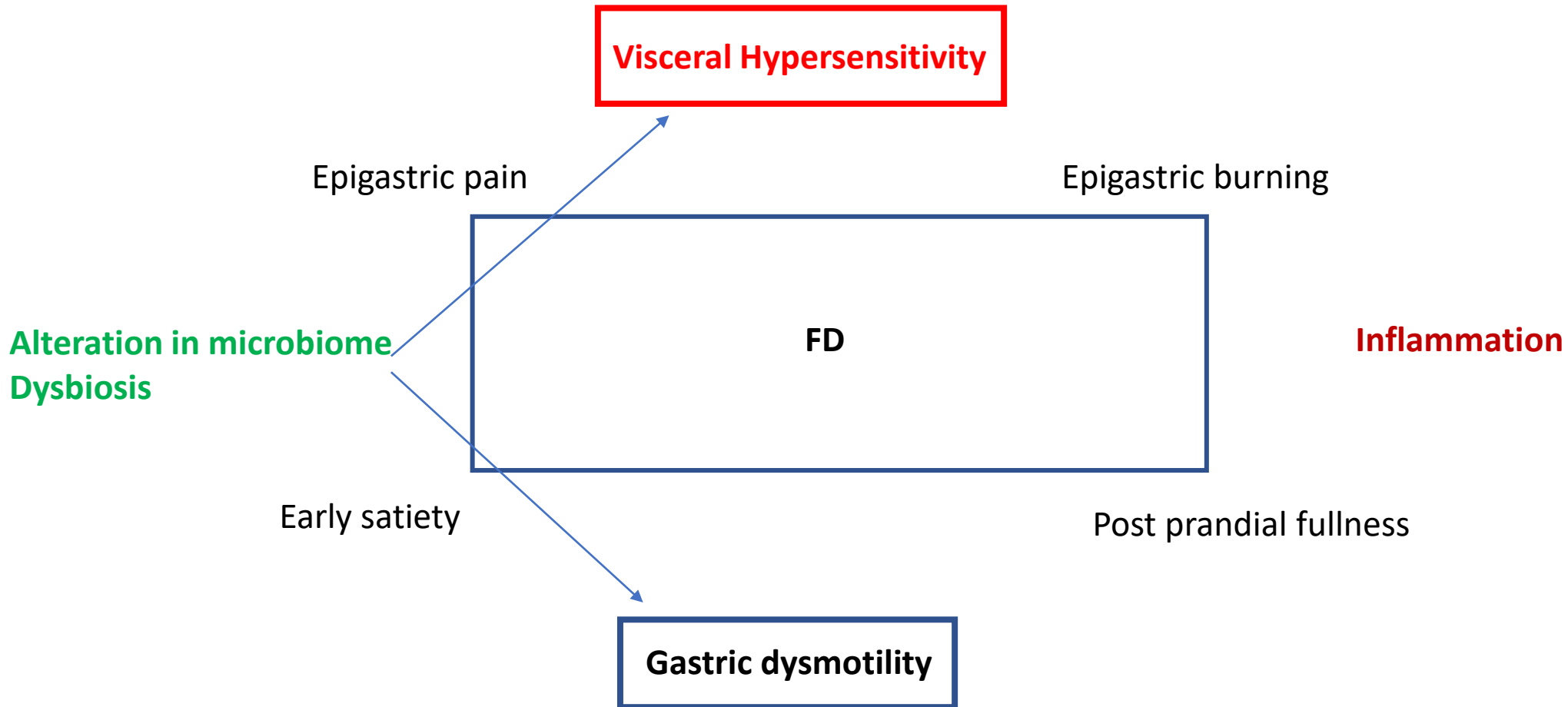
Functional Dyspepsia



Functional Dyspepsia



Functional Dyspepsia



Functional Dyspepsia

Visceral Hypersensitivity

Epigastric pain

Epigastric burning

Alteration in microbiome

GUT-BRAIN Axis

Inflammation

Early satiety

Post prandial fullness

Gastric dysmotility

Functional Dyspepsia

Stress

Visceral Hypersensitivity

Epigastric pain

Epigastric burning

Alteration in microbiome

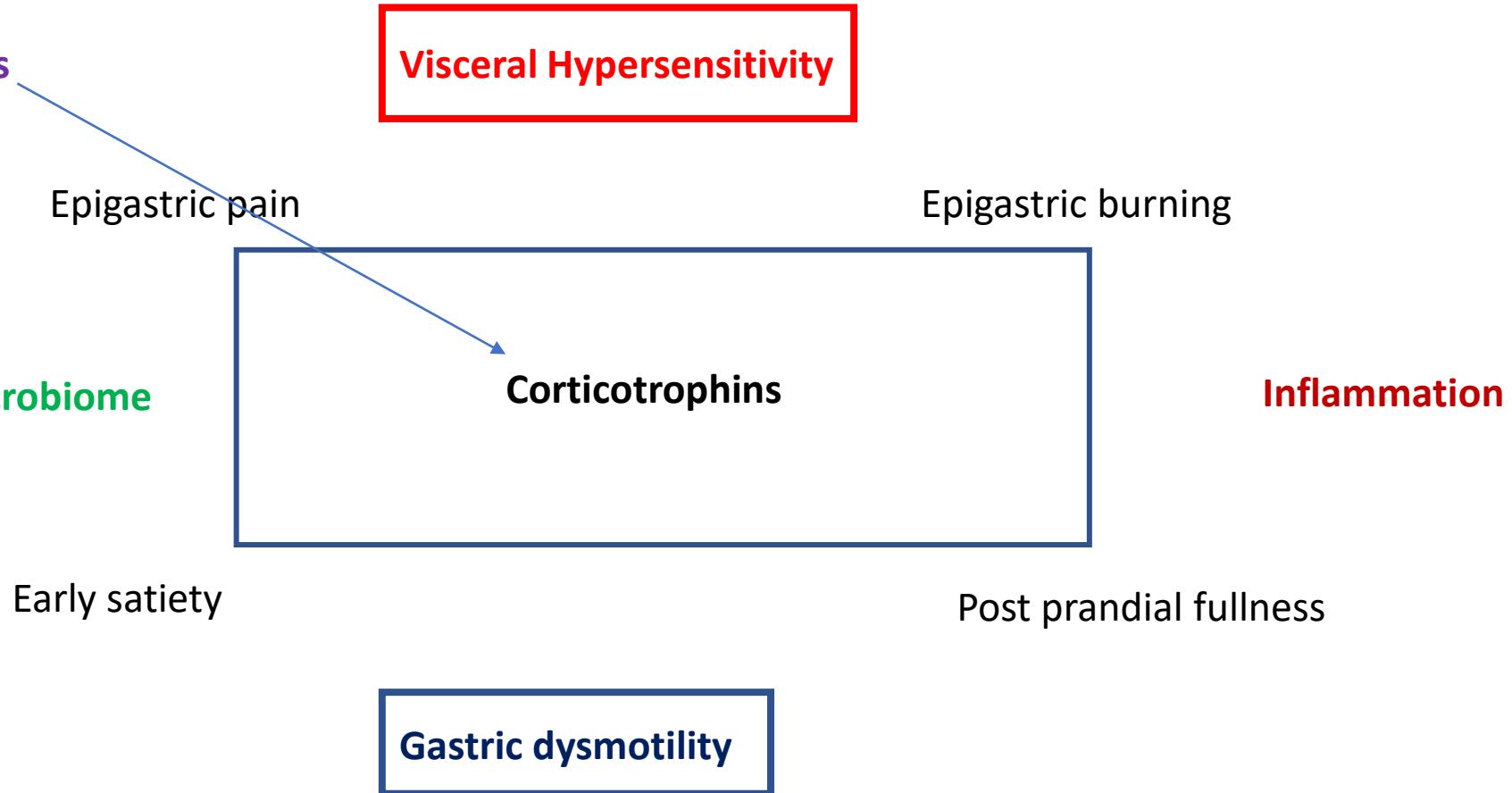
Corticotrophins

Inflammation

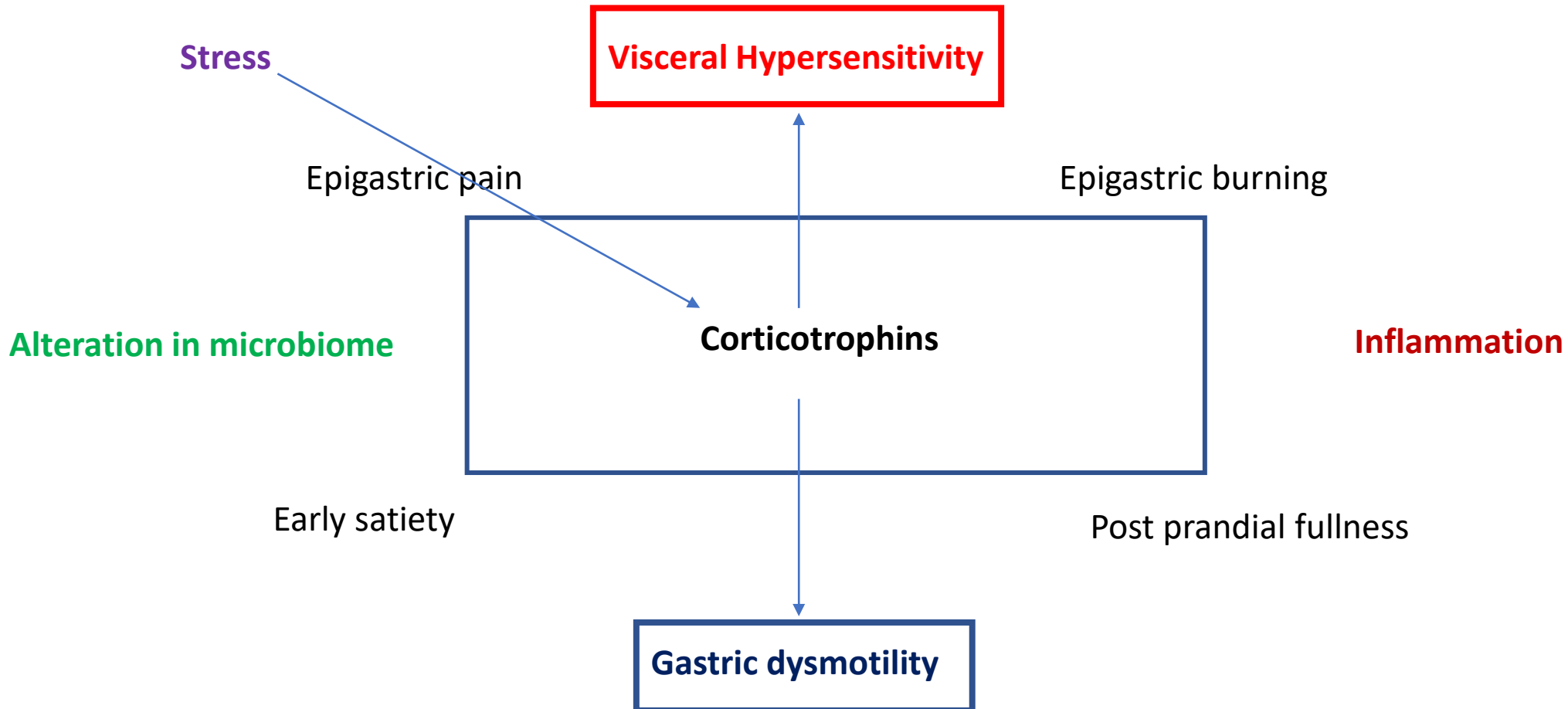
Early satiety

Post prandial fullness

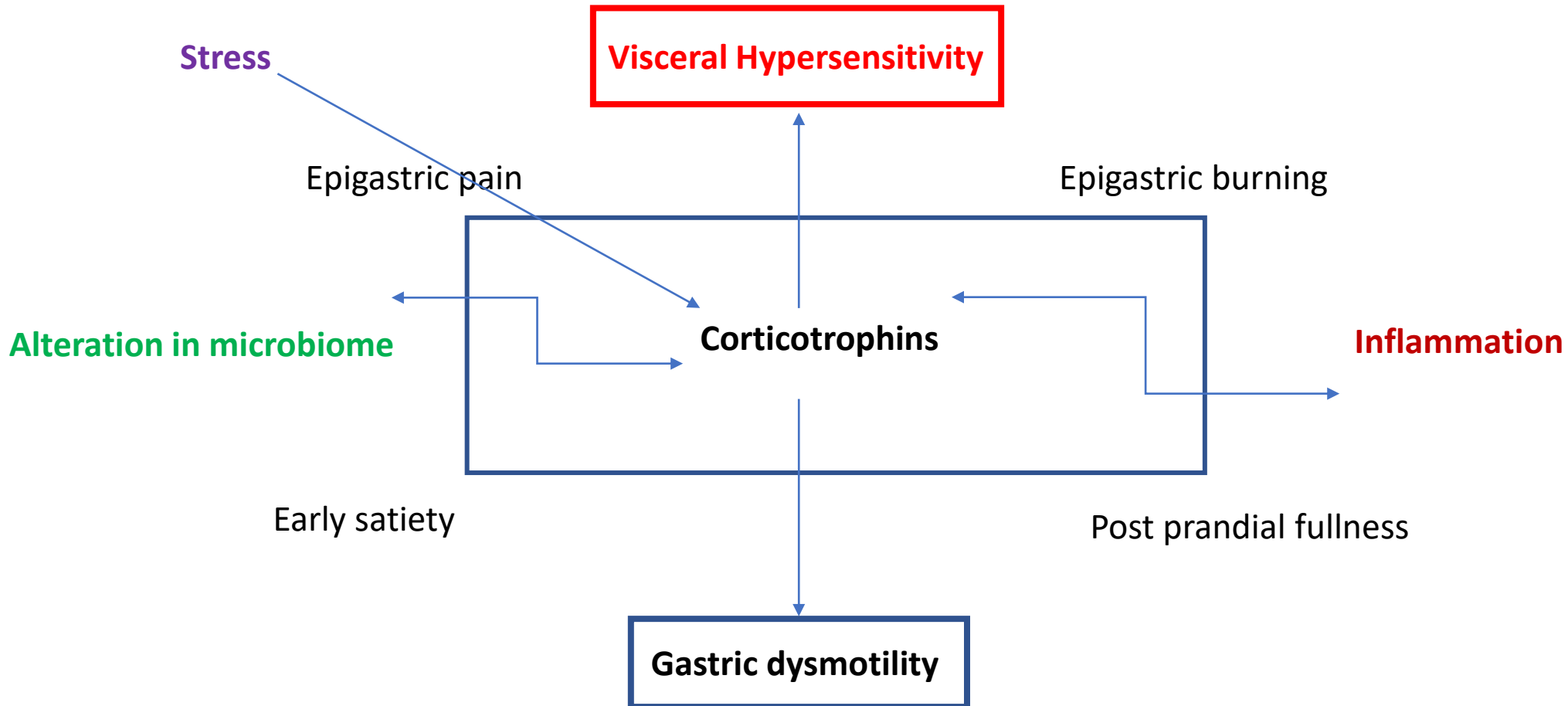
Gastric dysmotility



Functional Dyspepsia



Functional Dyspepsia



Treatment options

Treatment

Stress

Visceral Hypersensitivity

Acid suppression

Epigastric pain

Epigastric burning

Alteration in microbiome



Inflammation

Early satiety

Post prandial fullness

Gastric dysmotility



Treatment

Stress

Visceral Hypersensitivity

No evidence to support antacid, sucralfate or bismuth

Epigastric pain

Epigastric burning

Alteration in microbiome



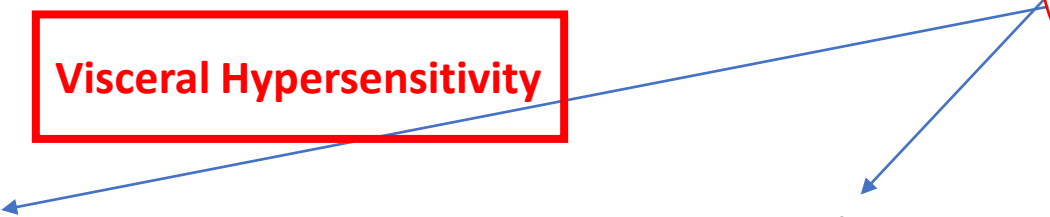
FD

Inflammation

Early satiety

Post prandial fullness

Gastric dysmotility



Treatment

Stress

Visceral Hypersensitivity

PPI

Epigastric pain

Epigastric burning

Alteration in microbiome



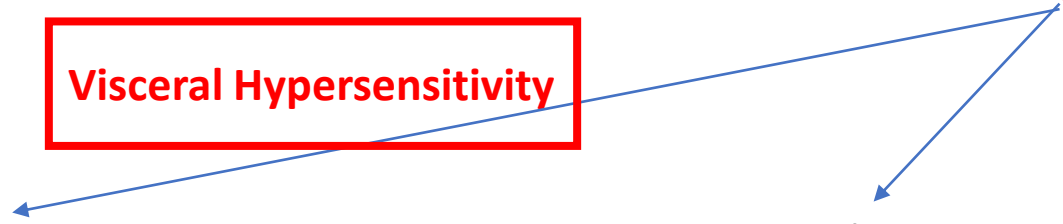
FD

Inflammation

Early satiety

Post prandial fullness

Gastric dysmotility



Treatment

Stress

Visceral Hypersensitivity

PPI
NNTB:11
25 RCT 8500 patients
Cochrane 2017

Epigastric pain

Epigastric burning

Alteration in microbiome

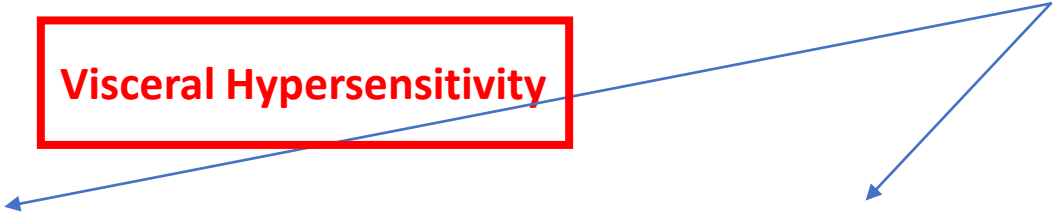


Inflammation

Early satiety

Post prandial fullness

Gastric dysmotility



Treatment

Stress

Visceral Hypersensitivity

PPI

NNTB:11

25 RCT 8500 patients

Cochrane 2017

EPS vs PDS no difference

Epigastric pain

Epigastric burning

Alteration in microbiome

FD

Inflammation

Early satiety

Post prandial fullness

Gastric dysmotility

Treatment

Stress

Visceral Hypersensitivity

H2RA
Very few trials

Epigastric pain

Epigastric burning

Alteration in microbiome

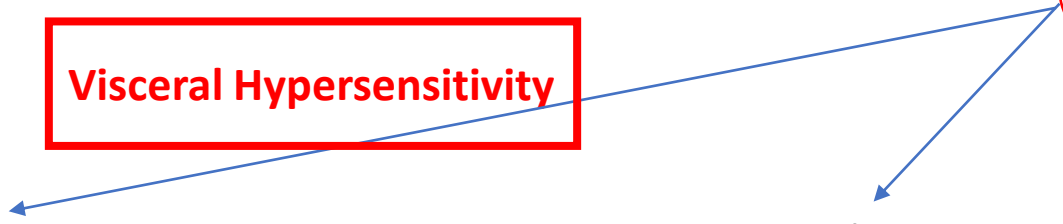


Inflammation

Early satiety

Post prandial fullness

Gastric dysmotility



Treatment

Stress

Visceral Hypersensitivity

Epigastric pain

Epigastric burning

Alteration in microbiome

FD

Inflammation

Early satiety

Post prandial fullness

Improving motility

Gastric dysmotility

Treatment

Stress

Visceral Hypersensitivity

Epigastric pain

Epigastric burning

Alteration in microbiome

FD

Inflammation

Early satiety

Post prandial fullness

Prokinetics

Gastric dysmotility

Treatment

Stress

Visceral Hypersensitivity

Epigastric pain

Epigastric burning

Alteration in microbiome

FD

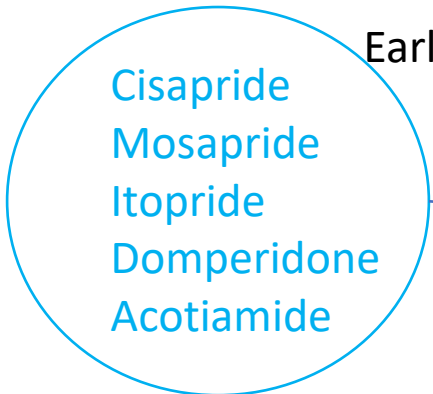
Inflammation

Early satiety

Post prandial fullness

Cisapride
Mosapride
Itopride
Domperidone
Acotiamide

Gastric dysmotility



Treatment

Stress

Visceral Hypersensitivity

Epigastric pain

Epigastric burning

Alteration in microbiome

FD

Inflammation

NNTB: 4-20

But poor quality evidence
I2>90%
29 Studies 10000 patients

Early satiety

Post prandial fullness

Gastric dysmotility

Treatment

Stress

Visceral Hypersensitivity

Epigastric pain

Epigastric burning

Alteration in microbiome

FD

Inflammation

Early satiety

Post prandial fullness

Due to low, or very low, quality of evidence, we are unable to say whether prokinetics are effective for the treatment of functional dyspepsia

Gastric dysmotility

Treatment

Psychotropic drugs

Stress

Visceral Hypersensitivity

Epigastric pain

Epigastric burning

Alteration in microbiome

FD

Inflammation

Early satiety

Post prandial fullness

Gastric dysmotility

Treatment

TCA

5HT-receptor agonist

SSRI

Stress

Visceral Hypersensitivity

Epigastric pain

Epigastric burning

Alteration in microbiome

FD

Inflammation

Early satiety

Post prandial fullness

Gastric dysmotility

Treatment

TCA
5HT₂ receptor agonist
SSRI
Stress

Visceral Hypersensitivity

Epigastric pain

Epigastric burning

Alteration in microbiome

FD

Inflammation

Early satiety

Post prandial fullness

Gastric dysmotility

Treatment

TCA NNT 4-18

13 RCT 1200 patients

GUT 2017

Stress

Visceral Hypersensitivity

Epigastric pain

Epigastric burning

Alteration in microbiome

FD

Inflammation

Early satiety

Post prandial fullness

Gastric dysmotility

Treatment

Stress

Visceral Hypersensitivity

Epigastric pain

Epigastric burning

Antibiotics

Alteration in microbiome

FD

Inflammation

Early satiety

Post prandial fullness

Gastric dysmotility

Functional Dyspepsia

Stress

Visceral Hypersensitivity

Epigastric pain

Epigastric burning

Rifaximin
RCT 86 patients

Alteration in microbiome

FD

Inflammation

Early satiety

Post prandial fullness

Gastric dysmotility

Functional Dyspepsia

Stress

Visceral Hypersensitivity

Epigastric pain

Epigastric burning

Anti-inflammatory

Alteration in microbiome

FD

Inflammation

Early satiety

Post prandial fullness

Gastric dysmotility

Functional Dyspepsia

Stress

Visceral Hypersensitivity

Epigastric pain

Epigastric burning

PPI
Budesonide
Monoclonal antibody

Alteration in microbiome

FD

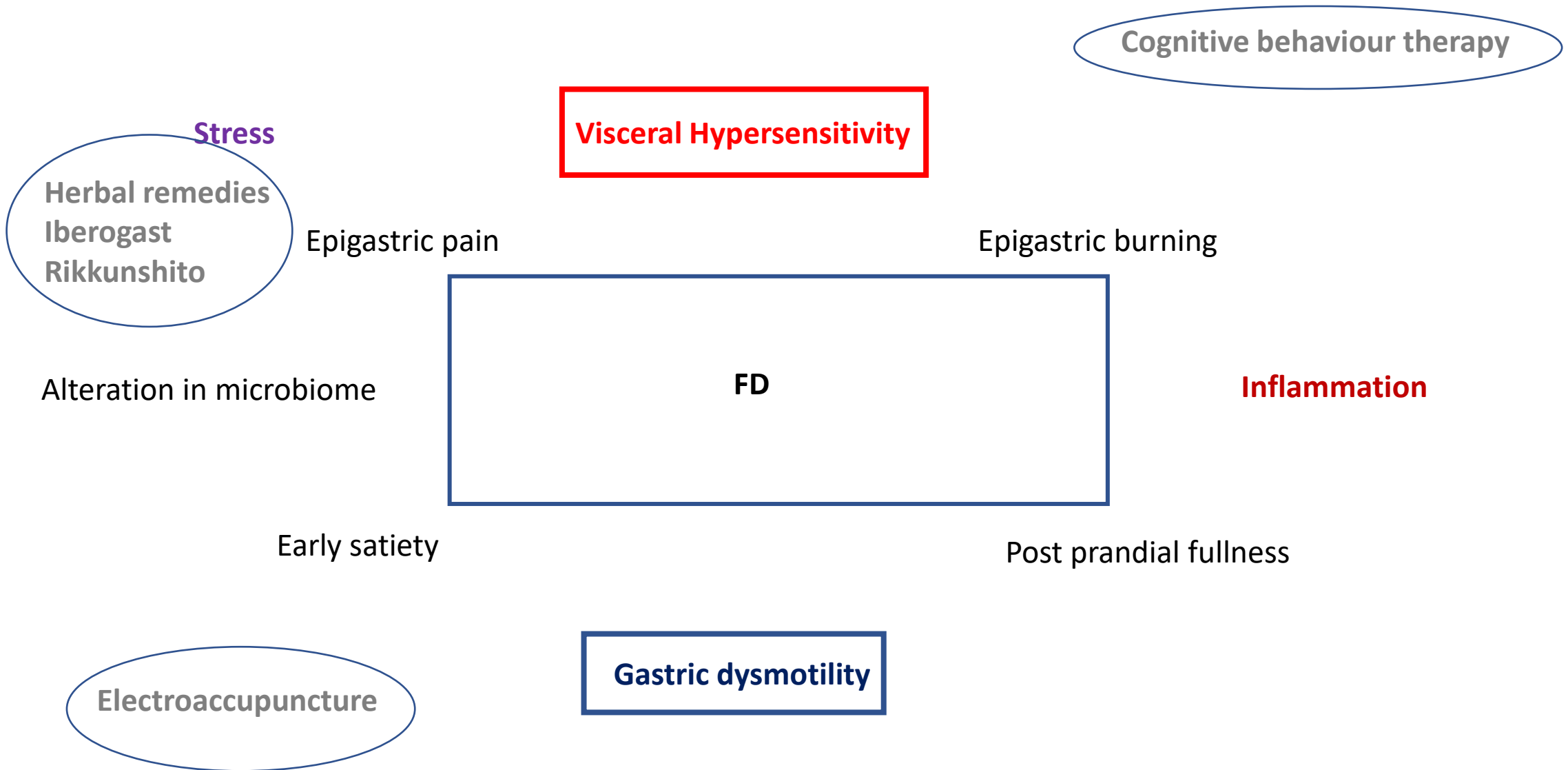
Inflammation

Early satiety

Post prandial fullness

Gastric dysmotility

Functional Dyspepsia



Functional Dyspepsia

Stress

Visceral Hypersensitivity

Epigastric pain

Epigastric burning

Diet: Gluten free/FODMAP (less fermentables)

Alteration in microbiome

FD

Inflammation

Early satiety

Post prandial fullness

Gastric dysmotility

Functional Dyspepsia

Stress

Visceral Hypersensitivity

Epigastric pain

Epigastric burning

Gluten free: reduction in EP, EB, ES, PPF

FD

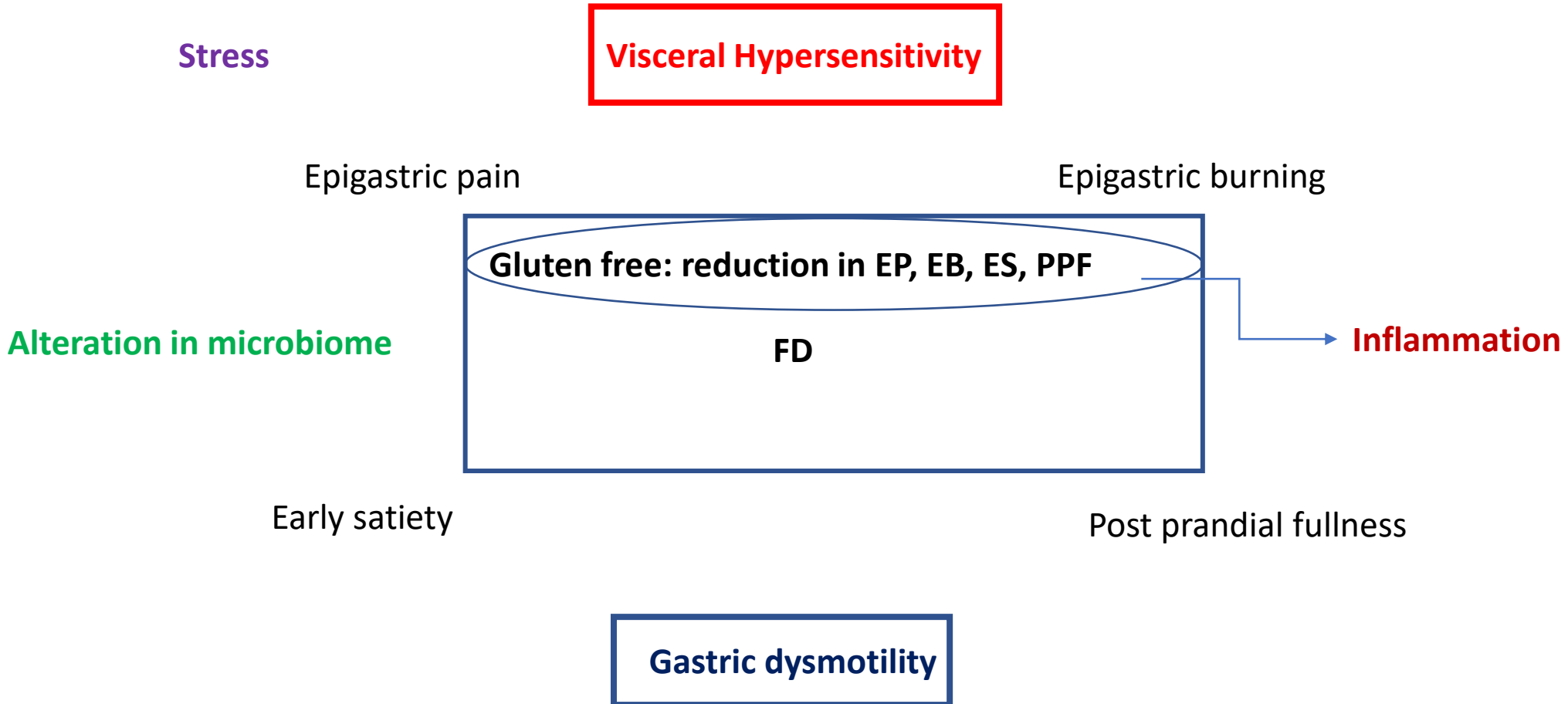
Inflammation

Alteration in microbiome

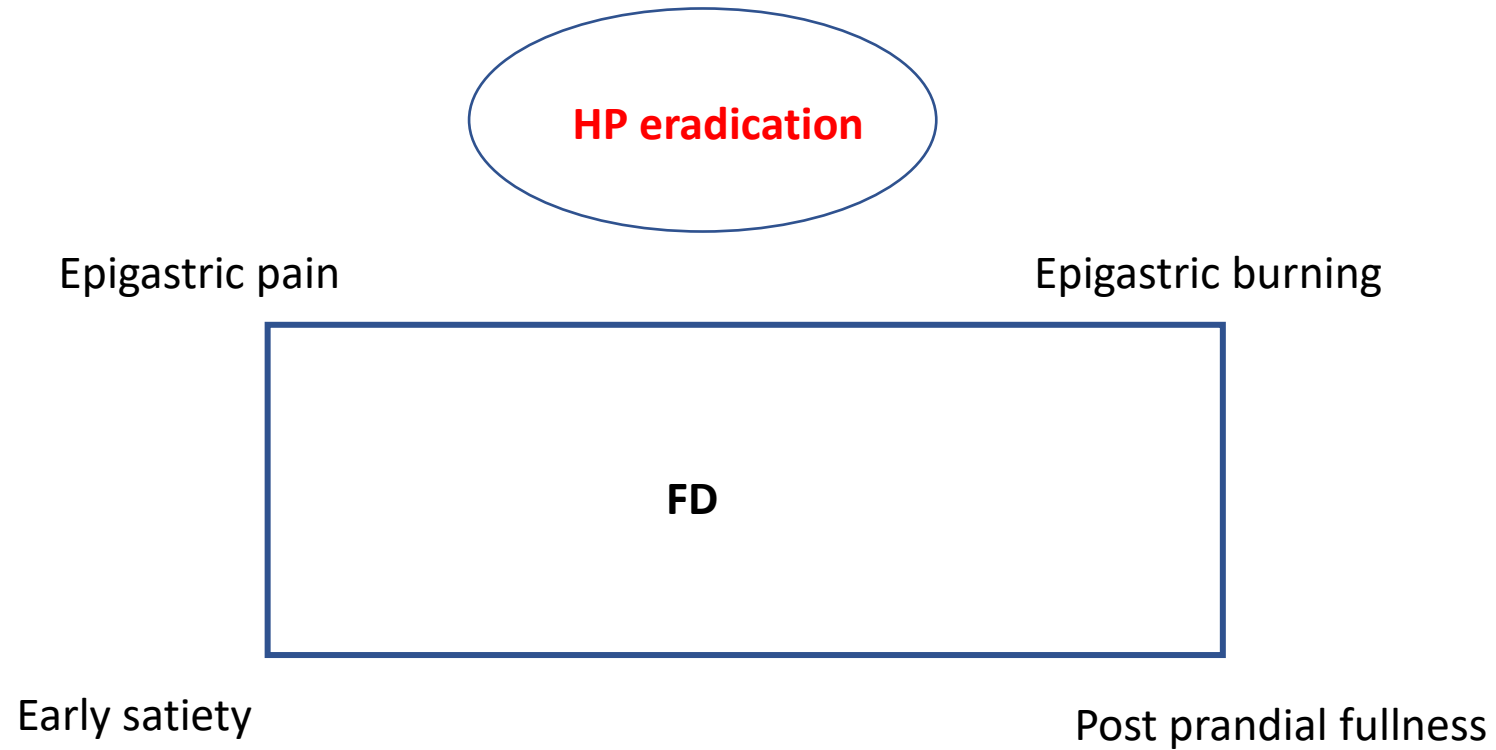
Early satiety

Post prandial fullness

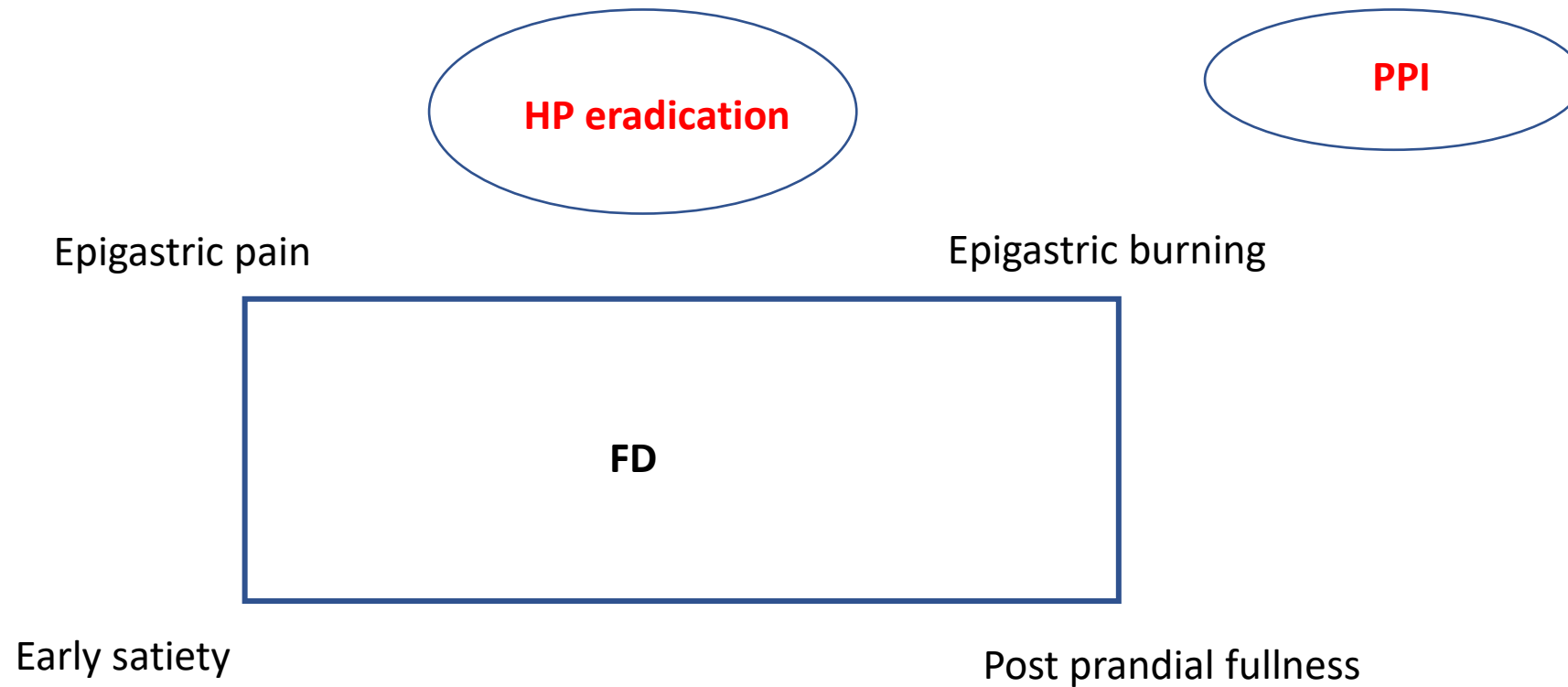
Gastric dysmotility



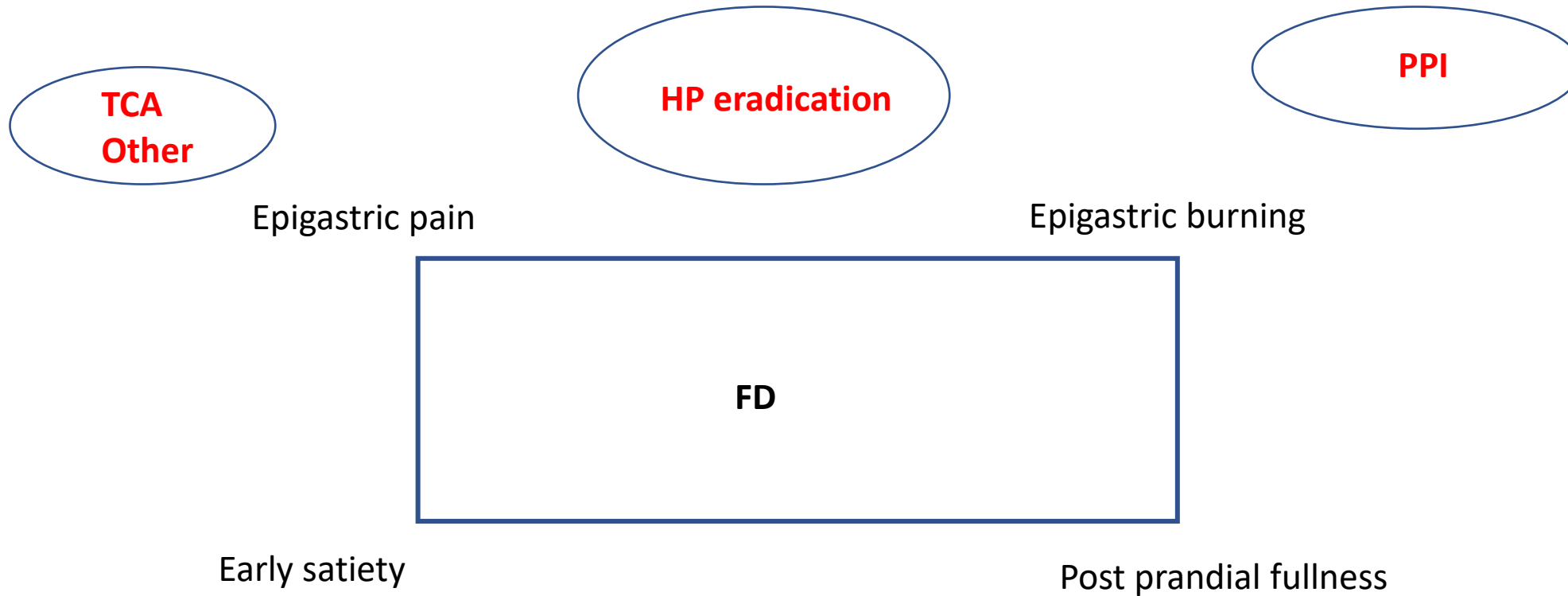
Functional Dyspepsia



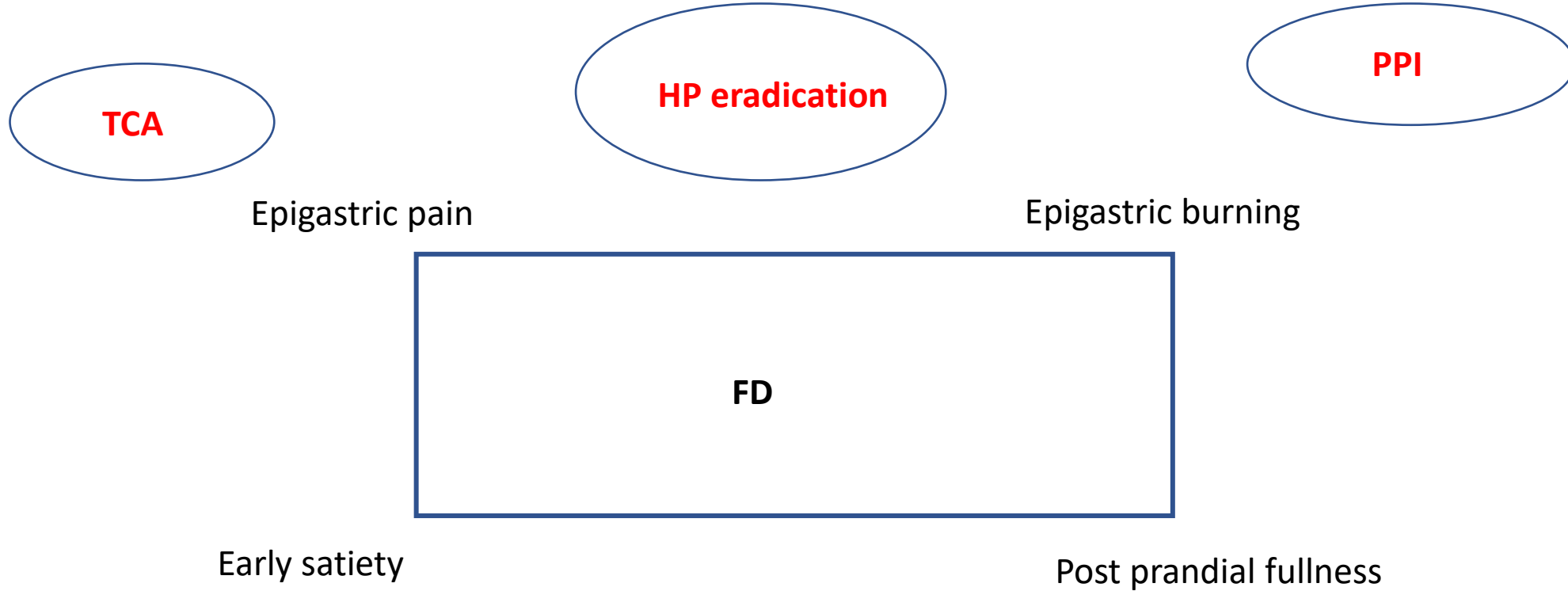
Functional Dyspepsia



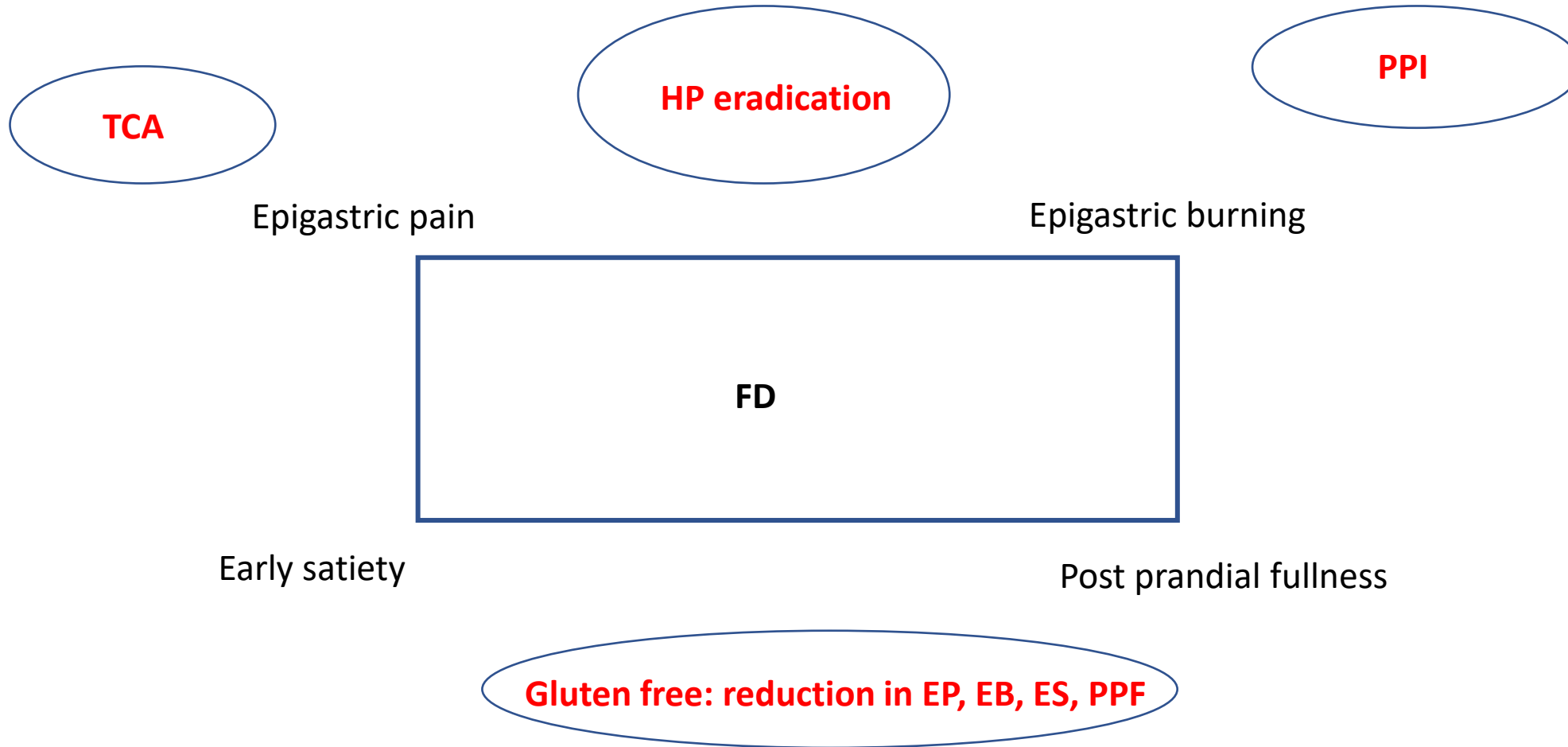
Functional Dyspepsia



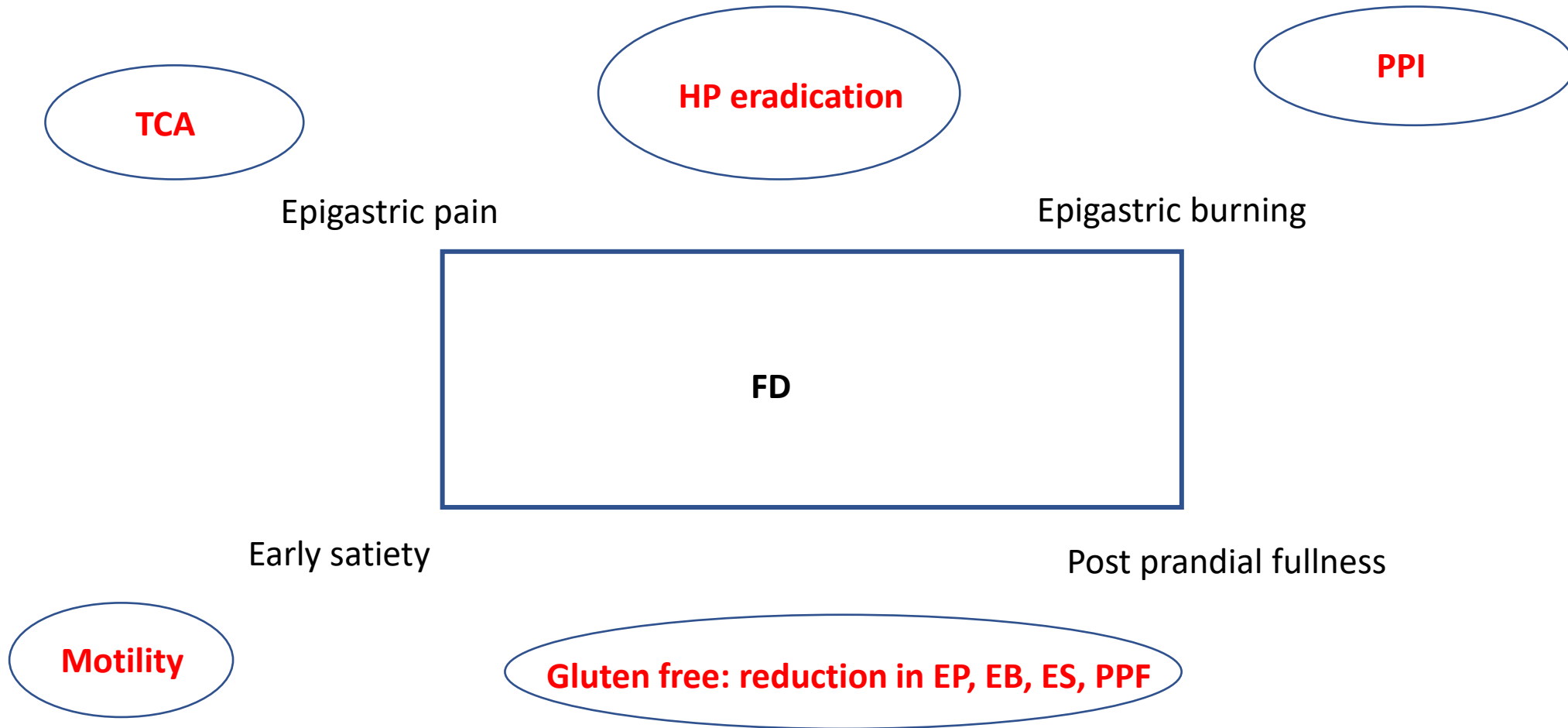
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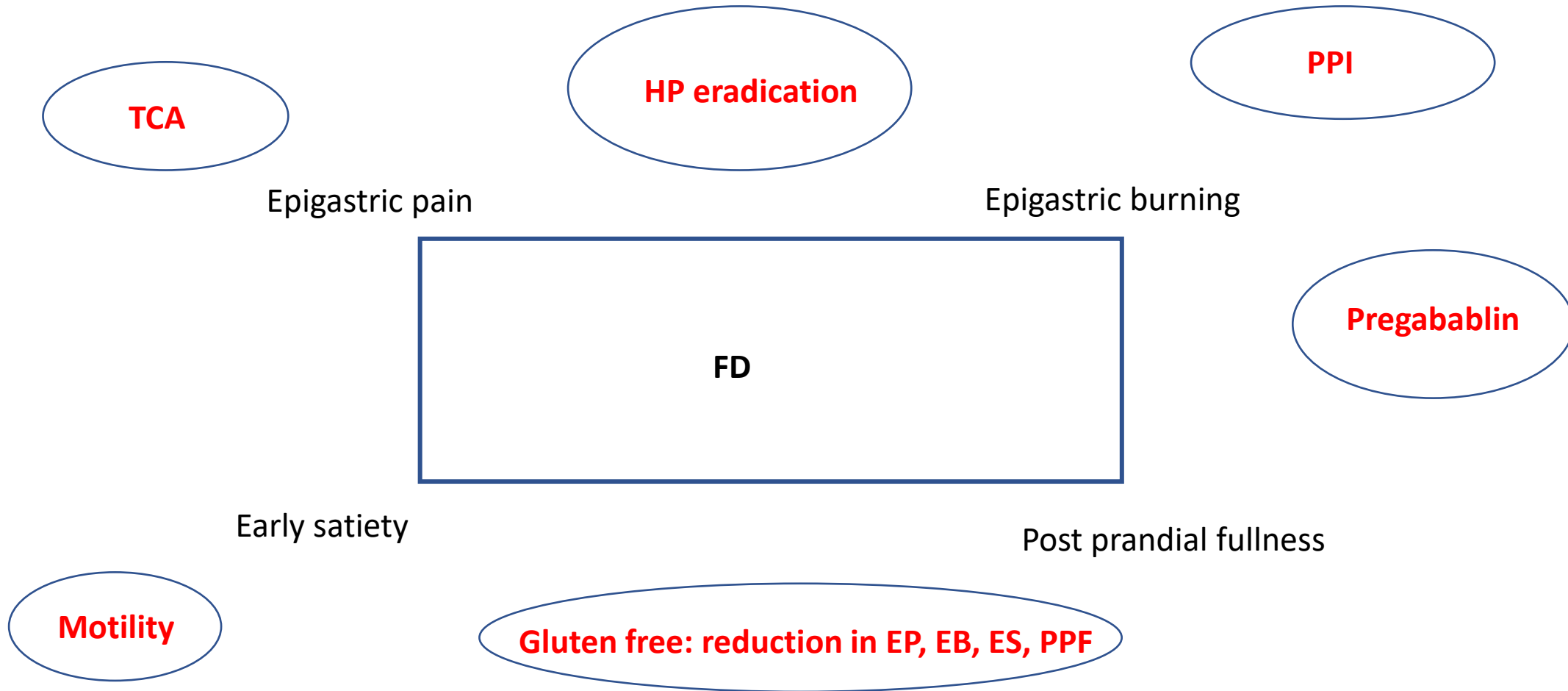
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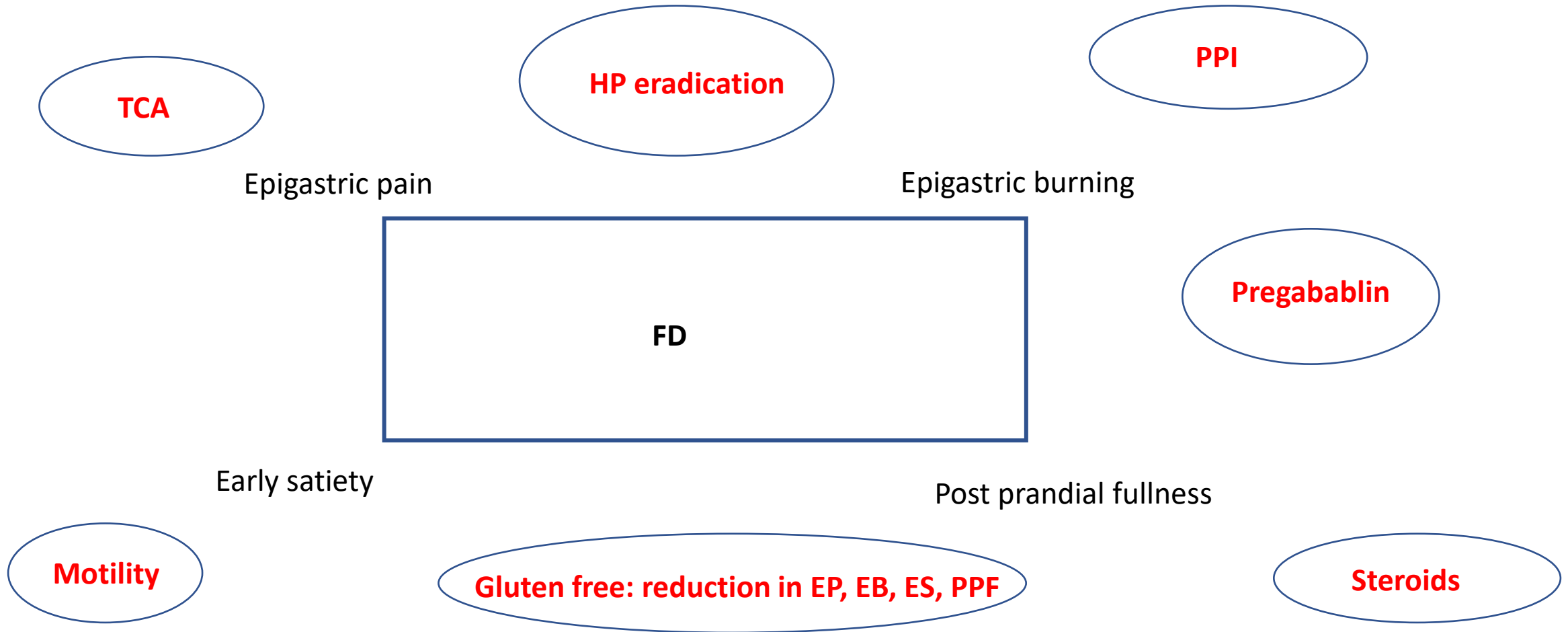
Functional Dyspepsia



Functional Dyspepsia



Functional Dyspepsia



I have never developed indigestion from eating my words

