

- 個案一

- 梁先生 M/45, 護士
- 飯後胸口痛, 口苦, 間中胃灼熱
- 心電圖, 肺 X 光, 超聲波, 胸, 腹部 CT 正常
- 胃鏡: 嚴重胃炎, HP 陰性

- 個案二

- 陳先生 M/70
- 吸煙
- 長期胃酸過多, 間中服抗酸藥
- 吞嚥困難, 食物噎在胸口

# 胃酸倒流(GERD)



Dr To Hing Ting

杜興婷醫生

- 發病率及併發症催升
- 亞洲區 發病率 2.5% to 7.1%
  - J Gastroenterol Hepatol. 2008 Dec;23(12):1785-93.  
**Gastroesophageal reflux disease: an Asian perspective.**



# 甚麼是胃酸倒流？

- 胃部的食物及胃酸倒流入食道
- 一個在飯後特別容易出現的生理現象  
( physiological reflux )

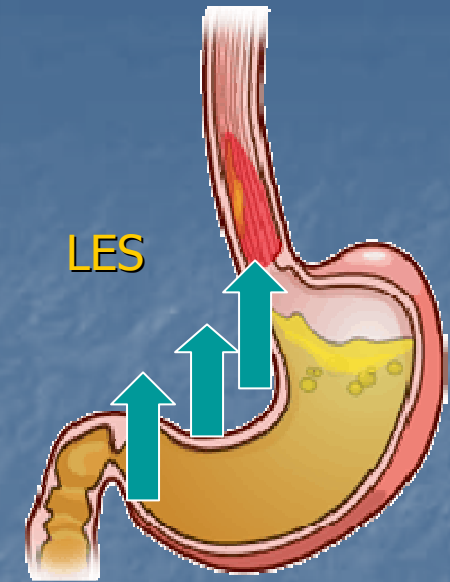
# 甚麼時候胃酸倒流是一種病？

當胃酸倒流導致：

- 影響生活質素的病徵
- 併發症

# 成因

- 下食道括約肌(LES)
  - 藥物 eg. Adalat
  - 食物 eg. 烟, 酒, 咖啡, 高脂肪, 朱古力
  - 食道裂孔疝氣 ( hiatus hernia )
- 食道疾病
- 胃部問題
  - 胃排空減緩 delayed gastric emptying
  - 胃部出口, 例如幽門阻塞 Outlet obstruction
  - 胃部持續膨脹, 對下食道括約肌造成壓力





# 食道裂孔疝氣 ( hiatus hernia )

Increased abdominal pressure 腹部壓力大

Heavy lifting

Frequent cough , sneezing, smoking  
pregnancy and delivery

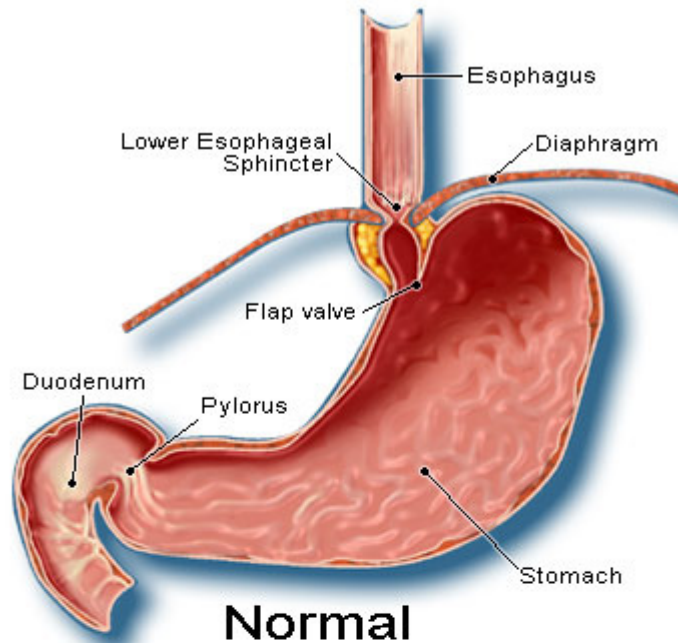
Violent vomiting

Straining with constipation

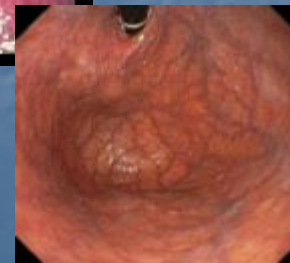
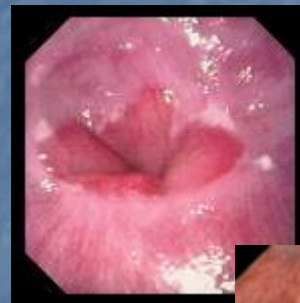
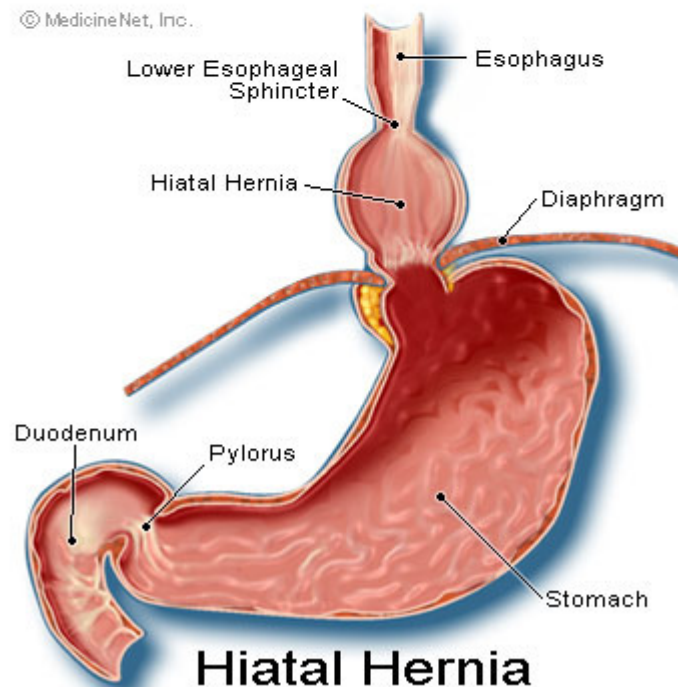
Obesity

Diaphragm weakness

Increased with age



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# 胃酸倒流的典型病徵

- 胃酸倒流
- Heartburn 胸口灼熱
- 通常在進食後1-3個小時後出現
- 躺臥、向前傾及伸展身體會偶爾使情況惡化



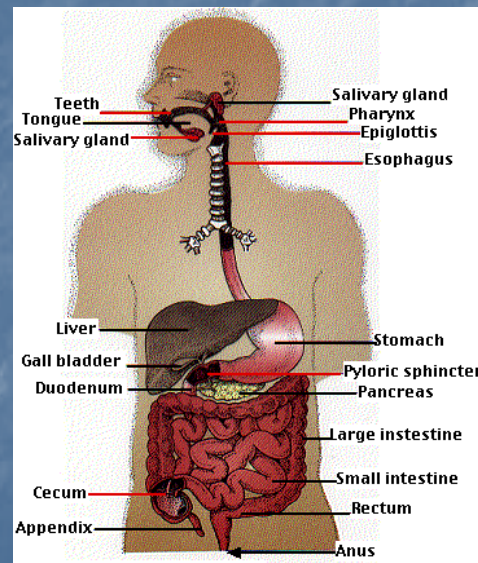
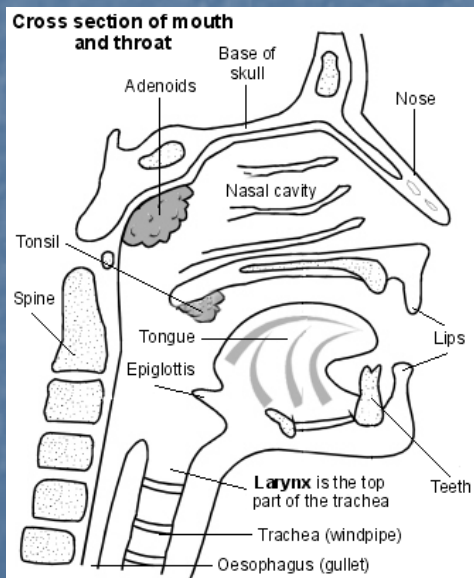
# Atypical symptoms 非典型病徵

吞嚥困難 Dysphagia, Odynophagia

口水分秘過多 Water brash

作悶,嘔吐 Nausea and vomiting

## extra-oesophageal symptoms



胸痛 Chest pain

哮喘 Asthma, Chronic cough

喉炎咽 laryngitis

聲帶病變 Vocal cord ulcers, leukoplakia,

蛀牙 Dental erosion

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- 胃鏡: 嚴重胃炎, HP 陰性

## ■ 問題: 他是否患有胃酸倒流?

- 非典型病徵

- 胃鏡顯示食道正常

# 胃酸倒流的檢查

- 典型病徵
- 質子泵抑制劑(PPI)測試
- 內窺鏡
- 酸鹼度(pH)考察
- 食道阻抗



# Therapeutic trial with PPI

## 質子泵抑制劑(PPI)測試

symptoms

PPI test

*high dose PPI  
BD dose  
2 weeks*



stop PPI

symptoms resolved

- 個案二

- 陳先生 M/70

- 吸烟

- 長期胃酸過多, 間中服抗酸藥

- 吞嚥困難, 食物憋在胸口

- 問題：假如你是他的主診醫生, 你會否作PPI測試？

# 內窺鏡 ( Endoscopy )

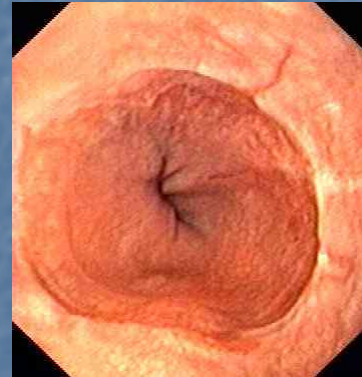
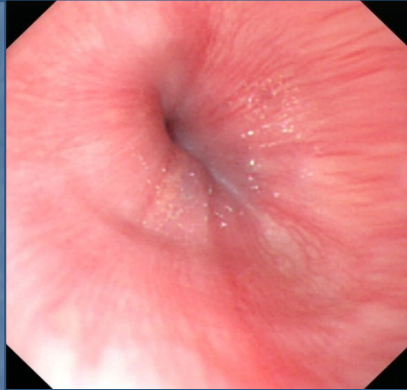
- 目的:
  - oesophagitis 食道炎
  - 剔除 其他可能性
    - 非典型病徵
    - 警示症狀, 例如 出血, 消瘦, 吞嚥困難
  - 併發症
  - 幽門螺桿菌



# 倒流性食道炎

Los Angeles classification

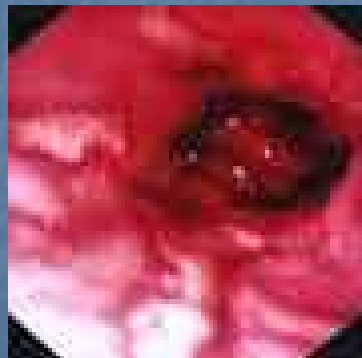
內窺鏡  
胃酸反流陰性



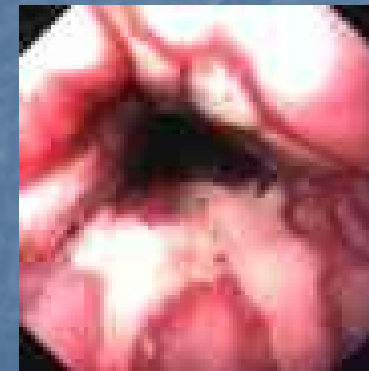
Grade A



Grade B



Grade C

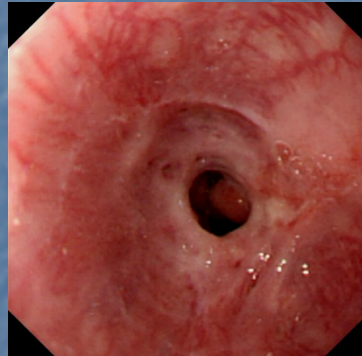


Grade D

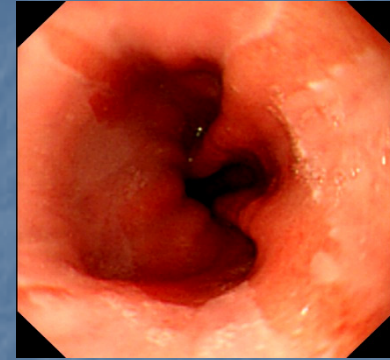
# 胃酸倒流的併發症



食道潰瘍



消化道收窄



Barrett 食道



食道出血



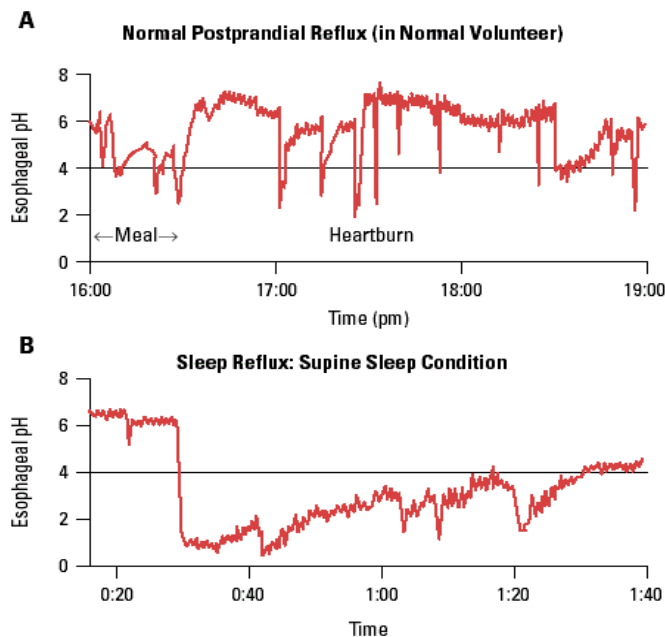
腺癌

# Ambulatory pH monitoring

## 酸鹼度(pH)考察

Figure 1.

A. Normal daytime reflux in a healthy volunteer. Reflux episodes are primarily postprandial, numerous, and of short duration. B. At night, acid dwells longer in the esophagus. Even a single episode of nocturnal reflux results in significant esophageal acid exposure, and cumulative exposures may lead to esophageal and extra-esophageal manifestations and complications.



In normal persons,  
Acid reflux < 2% of daytime ( upright )  
and < 0.3 % night time ( supine )

% time < pH 4 ( < 5% )  
No. of episodes pH < 4 more than 5 min  
Relationship with position, eating  
and symptoms

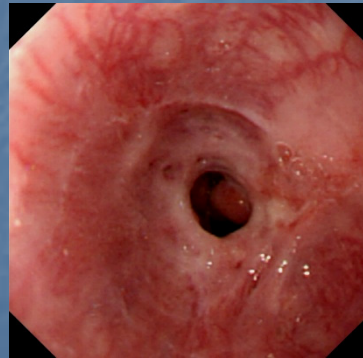


## COMBINED MULTICHANNEL INTRALUMINAL IMPEDANCE AND PH

# 食道阻抗

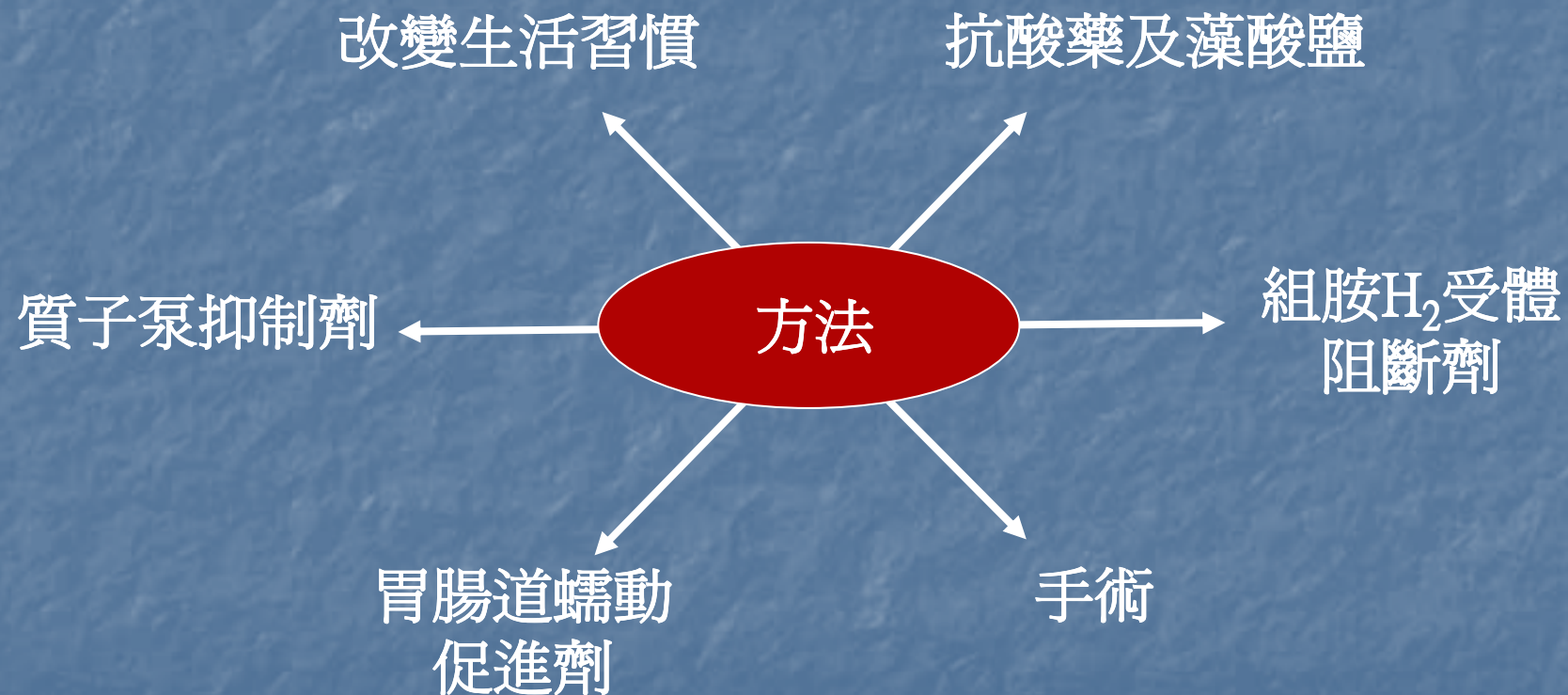
- 可分析倒流的成份
  - Detect:
    - **composition** as containing gas, liquid, or both
    - **proximal extent** of GER
    - **content: acid, non acid reflux**

- 梁先生：
  - PPI 測試
  - 症狀明顯進步
- 陳先生：
  - 內視鏡檢查
  - 幽門螺桿菌



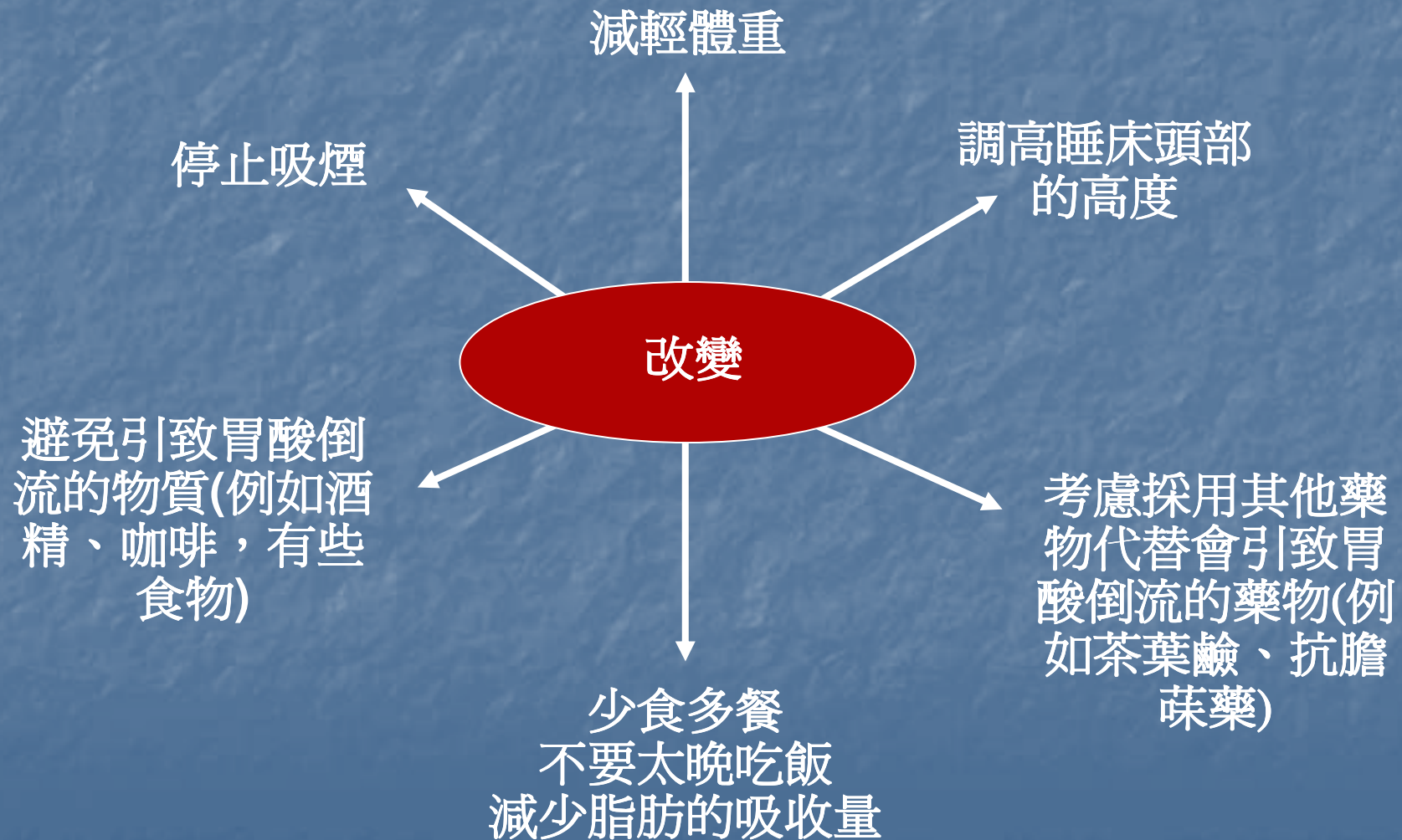
消化道收窄

# 胃酸倒流的治療選擇





# 改變生活習慣以控制胃酸倒流



# Acid suppression 抑制胃酸

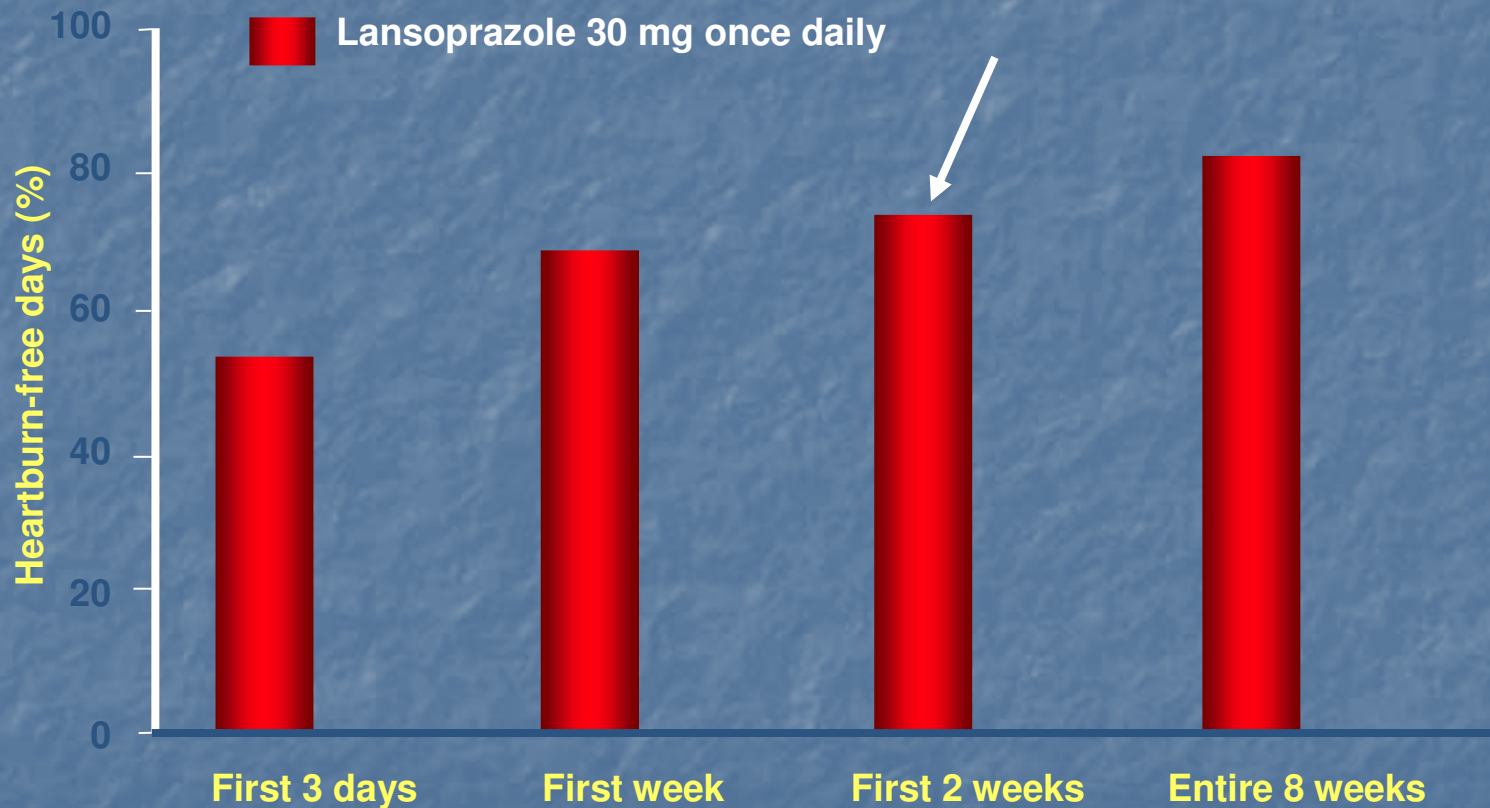
	H2 RA 組胺H2受體阻斷劑	PPI 質子泵抑制劑
Acid suppression	nocturnal 晚上	postprandial 飯後
Control symptoms in 8 weeks	50%	80%
Keep intragastric pH>4	for 6-8 hours daily	For 10-14 hours daily
heal oesophagitis in 12 weeks	60% in 12 weeks	90%
safety	安全	安全
Tolerance	develops over weeks to months	

## Prokinetics 胃腸道蠕動促進劑

- Metoclopramide
  - 較多副作用
    - S/E: Fatigue, restlessness, tardive dyskinesia
- Domperidone
  - Not cross BBB, less CNS side effects
- Cisapride
  - Withdrawn from market because of serious cardiac arrhythmia and deaths, only for compassionate use



# 質子泵抑制劑緩和胃灼熱的速度



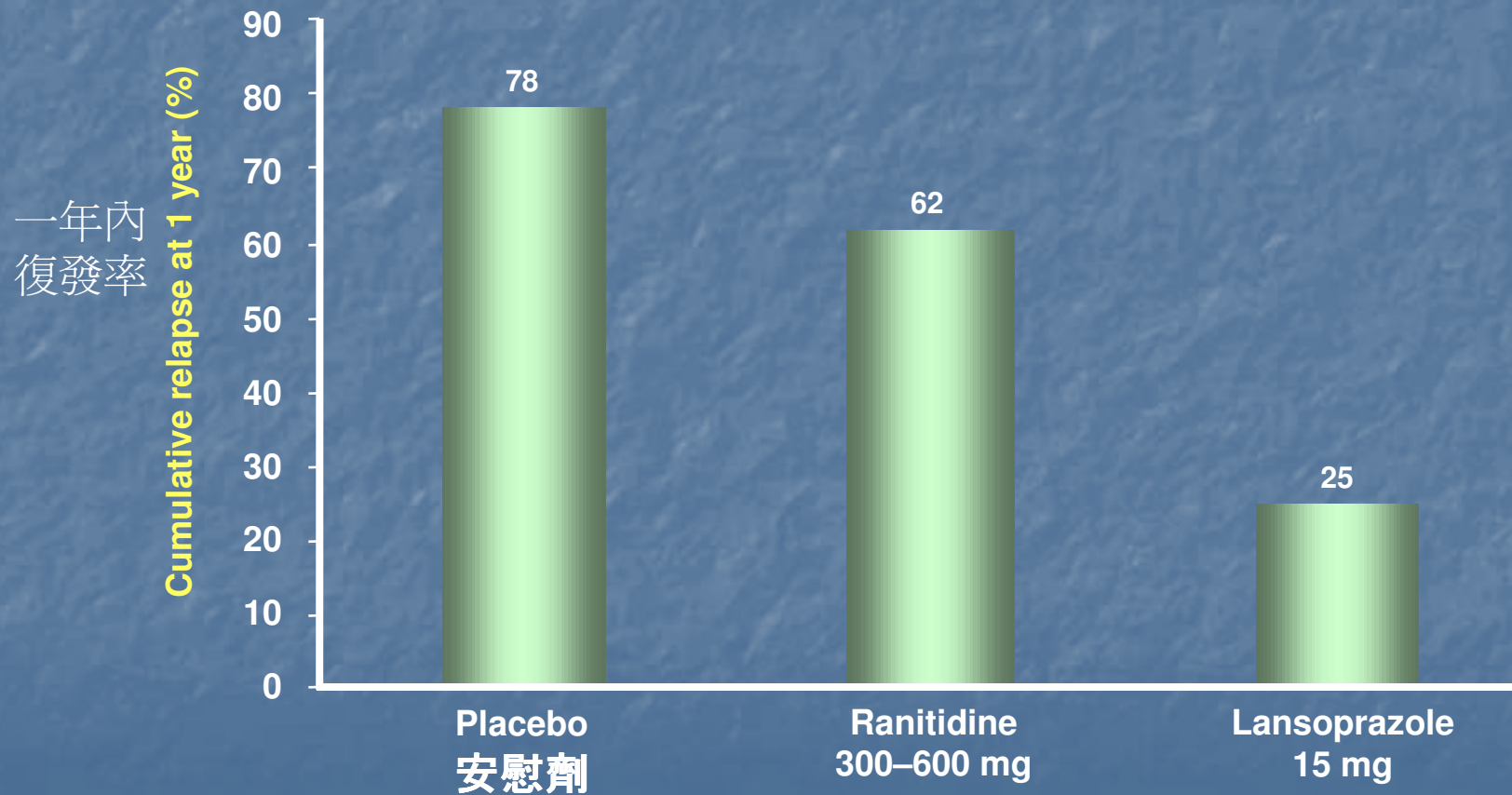
n=3510 patients with erosive GORD diagnosed by endoscopy randomised to study

Richter *et al.*, *Am J Gastroenterol* 2001; **96**: 3089–98.

# Maintenance therapy 維持治療

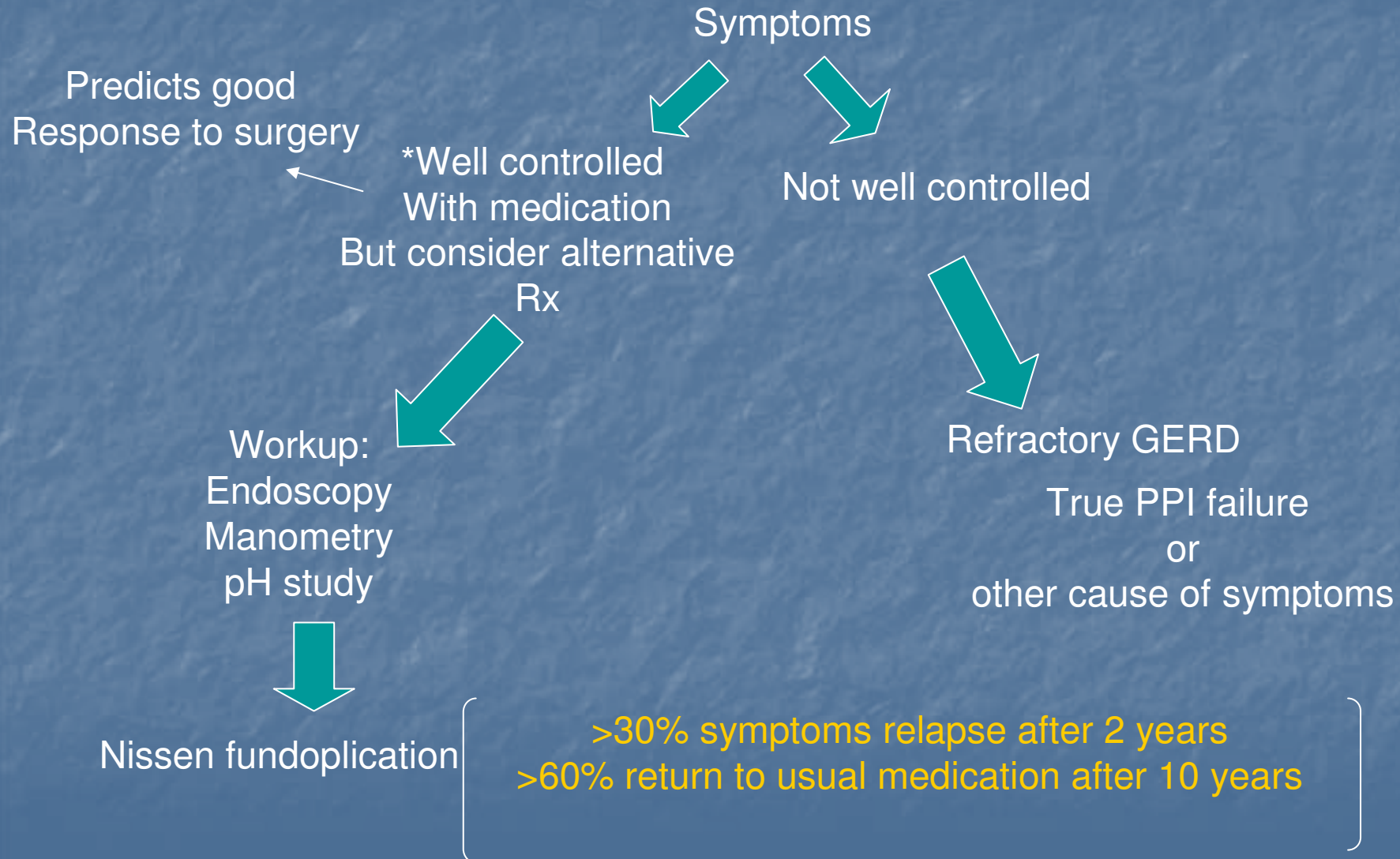
- 再發性 Chronic relapsing disease
- 下降式療法 Step-down approach
  - From multiple dosing PPI to single dosing PPI
  - From PPI to H2RAs
  - Off medication completely, life style modification

# 胃酸倒流的維持治療： 質子泵抑制劑 vs 組胺H<sub>2</sub>受體阻斷劑





# Anti-reflux surgery 手術



# 胃酸倒流治療: 總結

## ■ 診斷:

- 在一般情況下, 典型病徵, 質子泵抑制劑(PPI) 測試已可初部診症
- 非典型病徵和有警示症狀, 則需作內視鏡檢查

## ■ 治療:

- 下降式療法
- 再發性普遍, 多要維持治療

- 梁先生：
  - PPI 維持治療
  - 生活習慣改變
  - 情況進步, 仍偶有發作
- 陳先生：
  - PPI 維持治療
  - 戒烟
  - 接受幽門螺桿菌治療

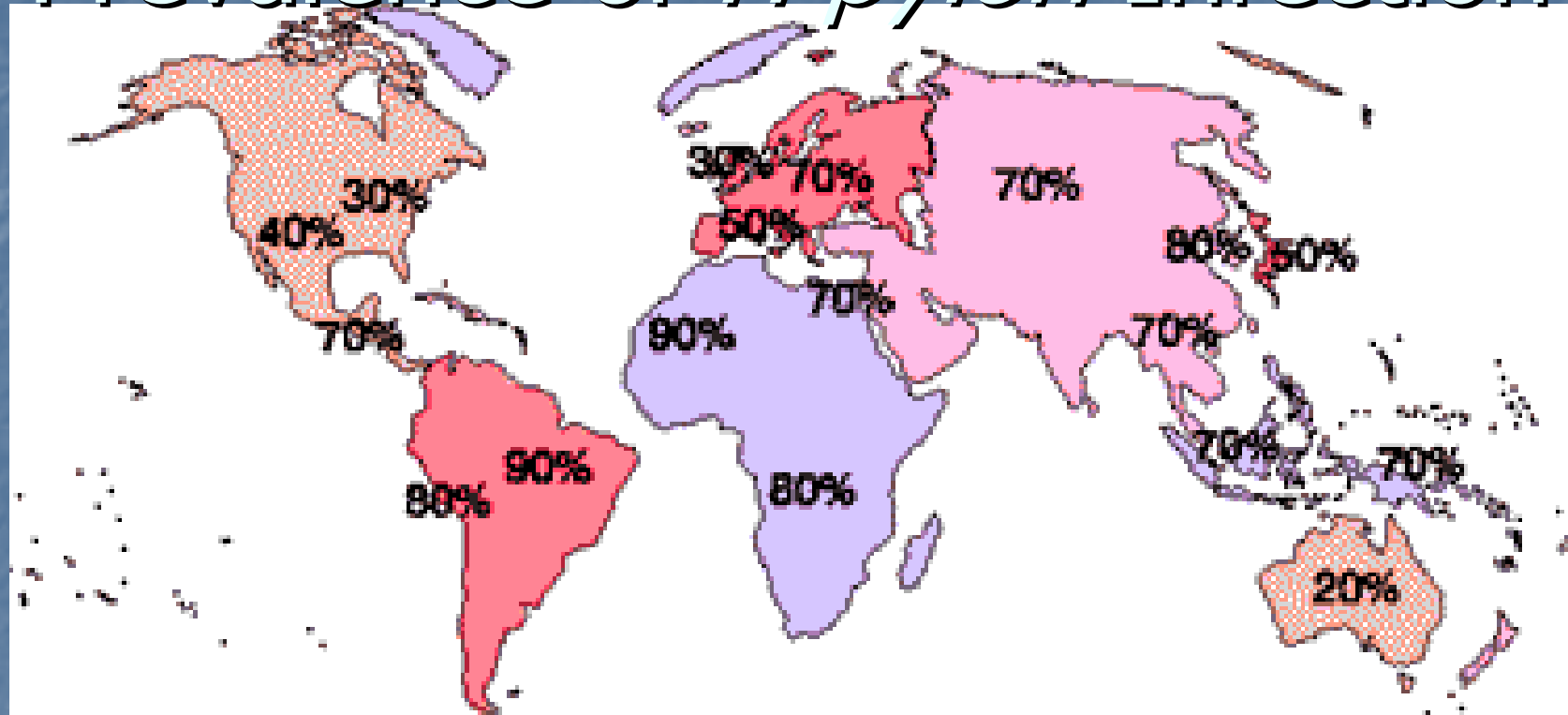


幽門螺桿菌  
(*H. pylori*)

# 幽門螺桿菌 與胃酸倒流的關係

- Negative association between *H pylori* and GERD in Asian patients
- In most patients, eradication of *H pylori* does not lead to development or aggravate symptoms of GERD

# Prevalence of *H pylori* Infection



The Helicobacter  
foundation

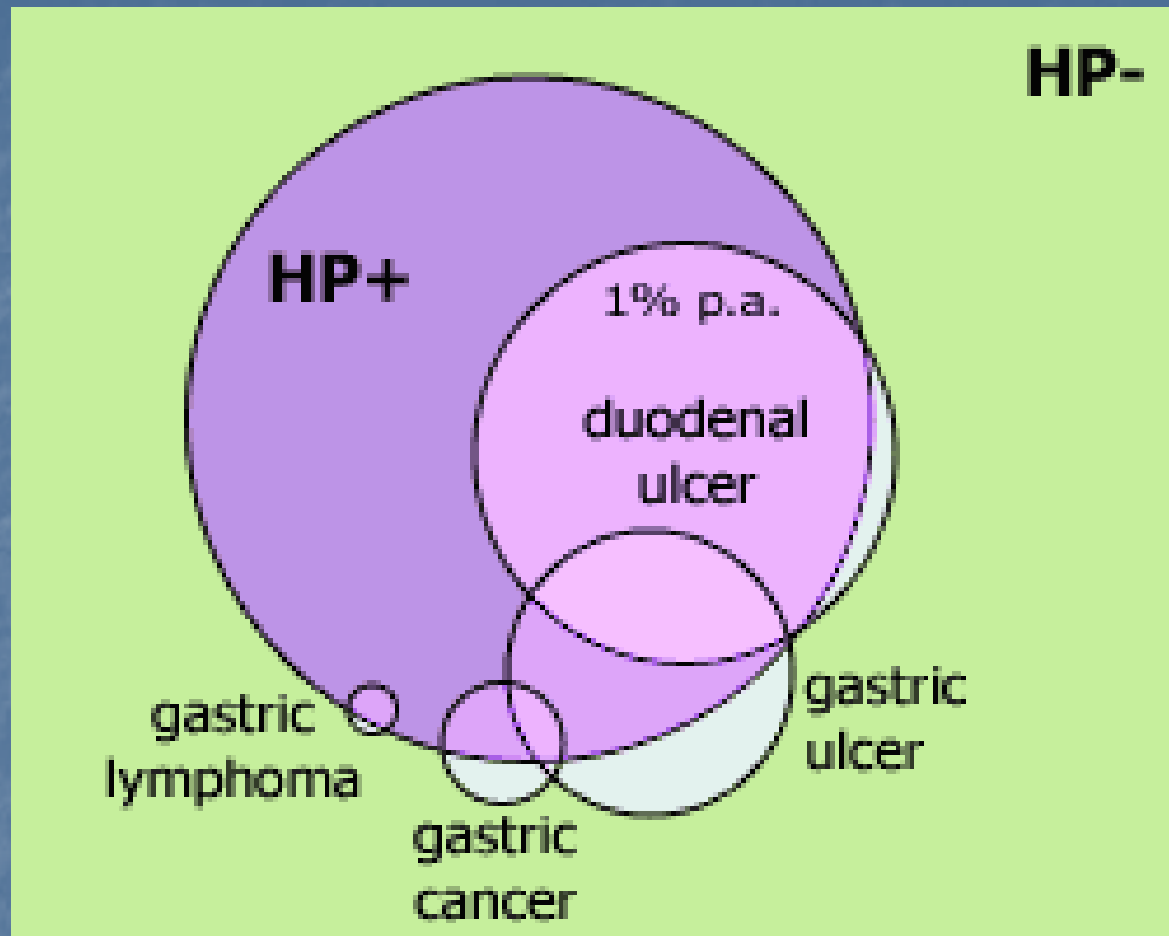


2005



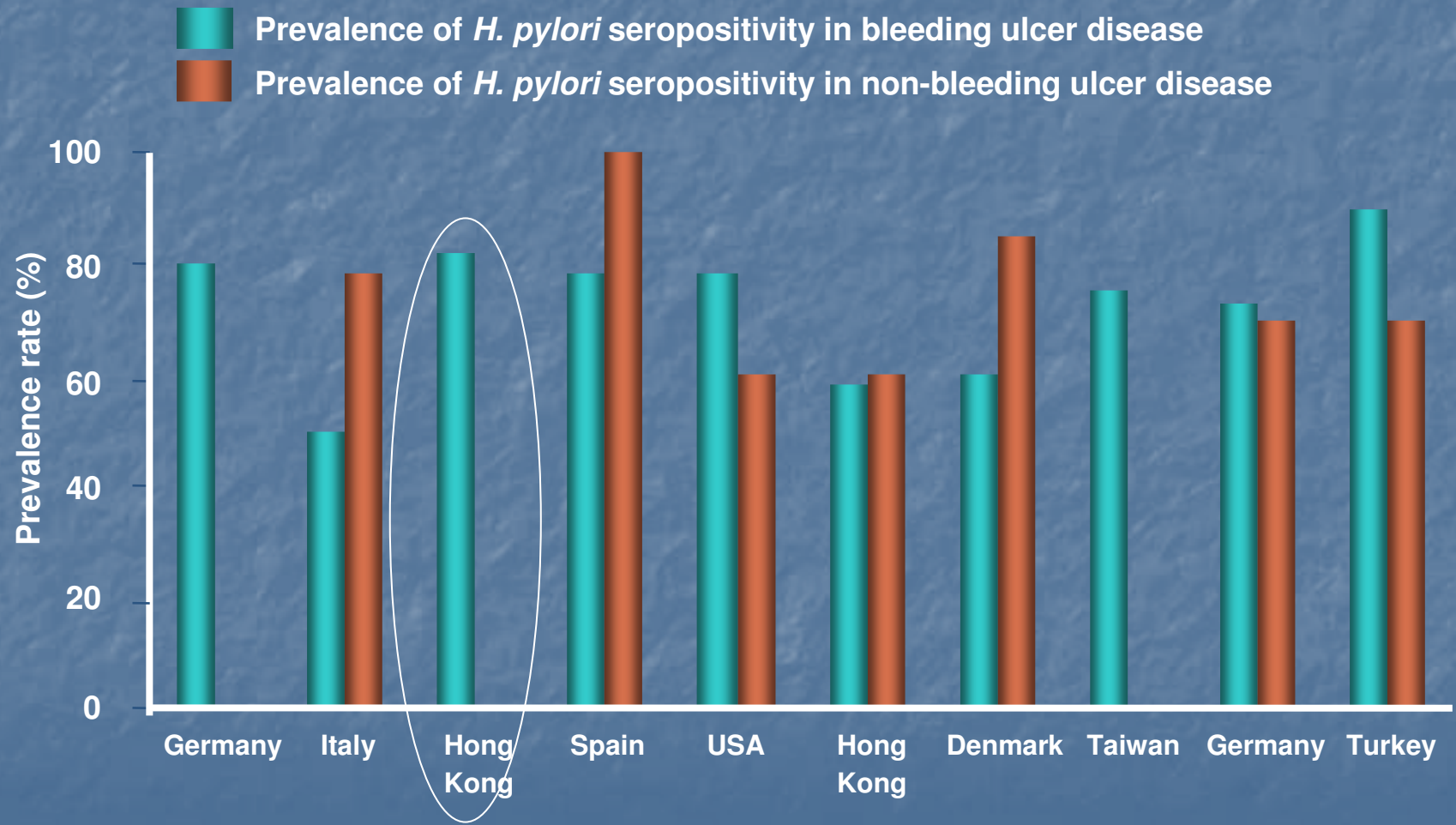
# Nobel Prize in Physiology or Medicine





The Helicobacter  
foundation

# 幽門螺桿菌在消化性潰瘍中的病發率





# 可能導致幽門螺桿菌感染的危機因子

- 年齡
  - 於發展中國家在幼年時快速受感染
- 感染地
  - 於發展中國家抗體陽性的比率較高
- 收入
  - 收入與抗體陽性成反比
- 家族
  - 家族集結？配偶之間經口部/腸胃相互傳染？

性別

兩性有相似的發病率

酒精

不會增加風險

血型

大部份研究顯示沒有聯繫

吸煙

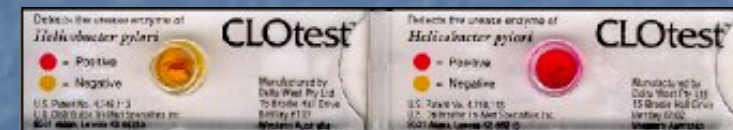
不會增加風險

# 診斷測試

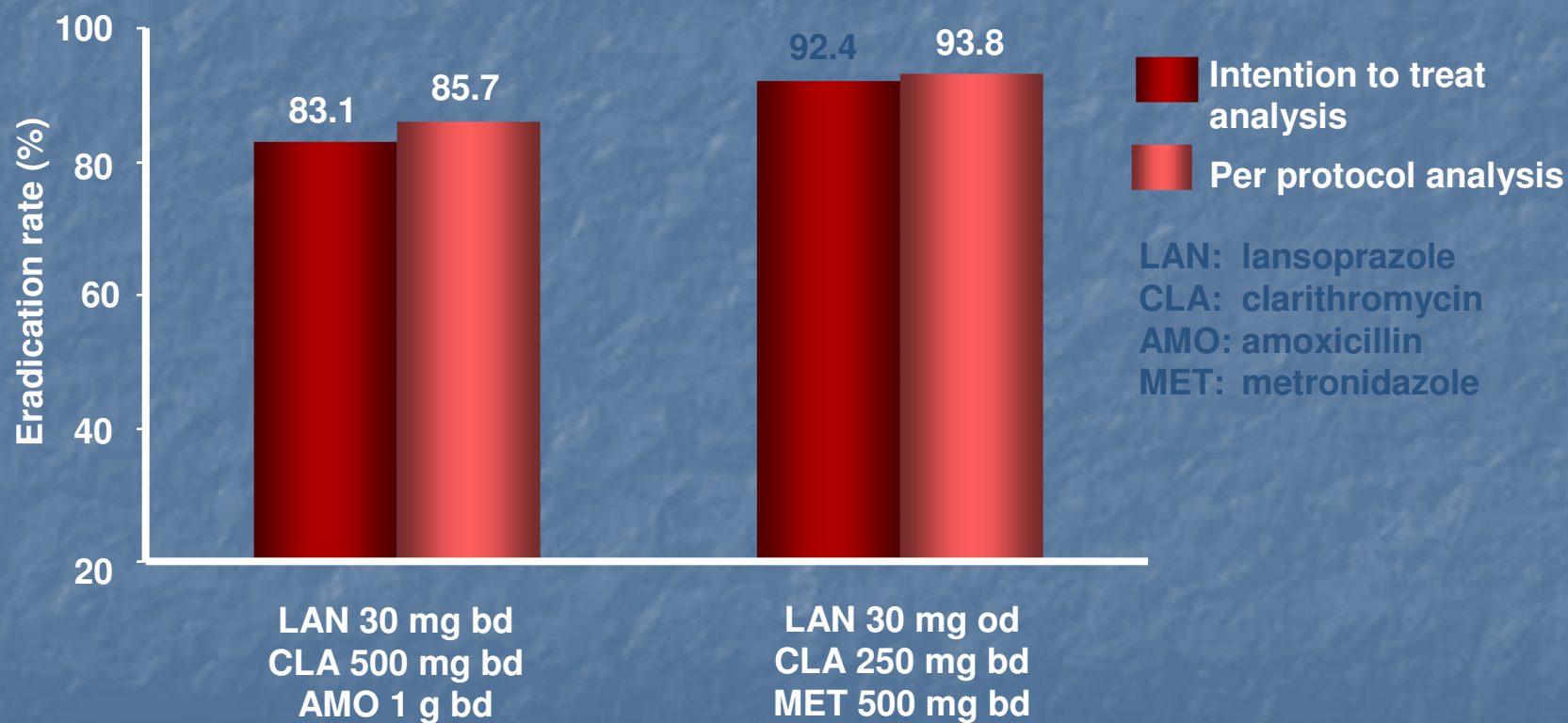
- 非內窺鏡
  - 抗體檢測
  - 尿素呼氣試驗
  - 糞便抗原測試



- 內窺鏡
  - 尿素酶試驗
  - 組織結構檢查
  - 細菌培植



# Lansoprazole加上兩種抗生素 根除幽門螺桿菌的效能

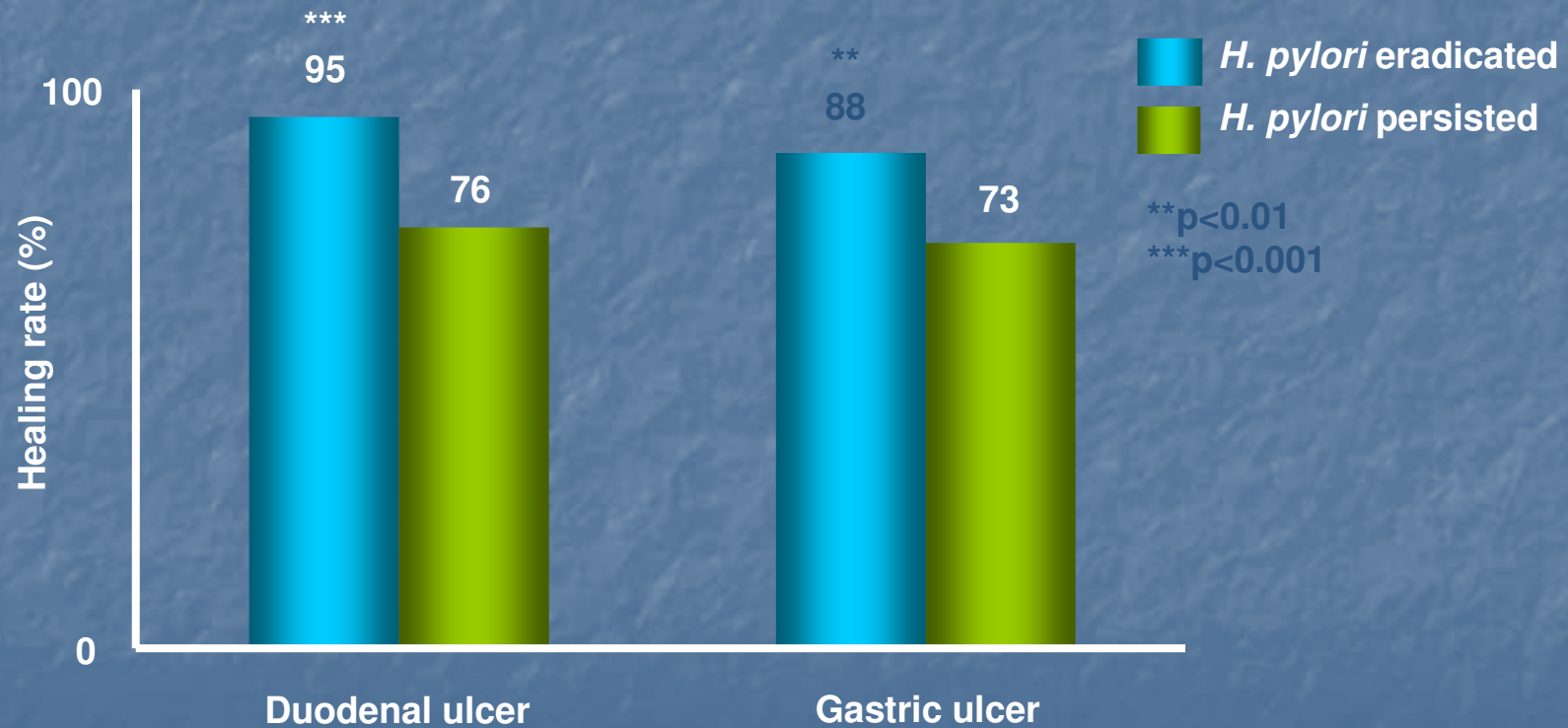




# 成功根除幽門螺桿菌對治癒潰瘍的影響

Review of 60 trials; 4329 patients

Ulcer healing rate according to post-treatment *H. pylori* status



## 胃潰瘍治療: 總結

- 受幽門螺桿菌感染的病人必需根除此病菌
- 質子泵抑制劑是最有效抑制胃酸的藥物，亦是治療胃潰瘍最恰當的第一線療法

The end

Thank you!