Clinical Audit on First Line Eradication Therapy for Helicobacter pylori Infection
Tai LF (1), Fan SY (2), Ho HK (1), Lau WS (1), Lau YL (1), Lee TL(1), Li WH (1), Sun C (1), Tam A (1), Leung CM(1), Lao WC(1)
(1)Department of Medicine, (2) Department of Pharmacy, Pamela Youde Nethersole Eastern Hospital

Keywords: Helicobacter pylori, Clinical Audit, Test for Cure, Proton Pump Inhibitor

Introduction
Successful eradication of Helicobacter pylori (HP) is clinically important as infection is etiologically associated with gastroduodenal diseases, particularly peptic ulcer disease and gastric malignancies. Triple therapy comprising amoxicillin, clarithromycin and a proton pump inhibitor (PPI) for 7-10 days has been the recommended first line eradication therapy in Asia. In face of rising antibiotic resistance, updated data attesting to the clinical efficacy of contemporary eradication regimens is needed. Since failure of eradication is not uncommon, the outcome of eradication therapy should always be assessed. Data is lacking, however, on how often confirmation of cure is practiced in hospital settings in Hong Kong.

Objectives
This clinical audit evaluates (1) the current practice of prescribing first line HP eradication therapies in a regional hospital, (2) the efficacy of these therapies, and (3) the current practice of testing for cure after HP eradication.

Methodology
Data were retrospectively collected for consecutive patients undergoing oesophagogastroduodenoscopy (OGD) from July 1 to October 31, 2014 in Pamela Youde Nethersole Eastern Hospital diagnosed to have HP infection by either histology or urea breath test. Patients who had previously received HP eradication therapy were excluded. The regime of eradication therapy prescribed, and whether testing for cure was performed were recorded. The modified Intention-to-treat (MITT, i.e. the outcome of all who received a dose and for whom an outcome measure is available) eradication rates of different regimes were calculated.

Result
A total of 2,158 OGD records were reviewed. Two hundred and seventy-eight patients were HP-infected, 252 (90.6%) of whom were prescribed first line eradication therapy. Confirmation of cure was performed in 27.8% (70/252) of treated patients over a
median follow-up period of 9 months. The overall success rate for various first line regimes was 90.0% (63/70). Amoxicillin/clarithromycin-based triple therapy for 10 days (60.0%) and 7 days (28.6%) were the most frequently prescribed regimes, followed by metronidazole/clarithromycin-based triple therapy for 7 days (5.7%). Their eradication rates were 92.9% (39/42), 95.0% (19/20, N.S.) and 50.0% (2/4, p<0.05), respectively. The overall eradication rate for amoxicillin/clarithromycin-based triple therapy for 7-10 days was 93.5%. In conclusion, amoxicillin/clarithromycin-based triple therapy remains highly efficacious as first line HP eradication therapy in our locality. The low confirmation rate after attempted HP eradication in hospital setting calls for more effort to promote testing for cure.