Pharmacoeconomic research and evaluation of sulphonylureas

Pharmaceuticals available in Malaysia include glibenclamide, glimepiride and gliclazide, glimepiride and gliclazide providing varying degree of benefits and risks. In this study, we review and compare overall utility values of sulphonylureas using medicines scoring system (MedSS).

**OBJECTIVES:** Sulphonylureas available in Malaysia include glibenclamide, glimepiride, glimepiride and gliclazide, glimepiride and gliclazide providing varying degree of benefits and risks. In this study, we review and compare overall utility values of sulphonylureas using medicines scoring system (MedSS).

**METHODS:** MedSS, a previously developed scoring framework based on multicriteria decision analysis (MCDA) that systematizes evaluation of drug attributes was used. An expert panel of 3 endocrinologists, 1 family physician and 5 pharmacists were formed. A group of medicine reviewers assisted in the collection of data. A consensus approach was employed for the scoring of utility values. Scoring was done using a 1-9 scale with 1 being worst and 9 being excellent; subsequent rebleeding rates varied according to etiology and appearance of lesions. The residence time of the powder was short-lived with complete elimination from the GI tract within 24 hours of use based on a few observations. No serious adverse events were noted.

**RESULTS:** Overall there were 67 treatments using TC-325 in 60 patients. The summary OR was 2.95 with 95% CI = 1.03 to 8.43 (P < 0.05) for Chron IBD (CIC) compared to non-IBD patients. The incidence of OB in the IBD group was 23% vs 7% in controls (OR 3.28, 95% CI = 1.23 to 8.78, p < 0.05).

**CONCLUSIONS:** A network meta-analysis based on the data from the systematic reviews was able to provide a ranking of relative effectiveness of individual PPIs and use of moxifloxacin or levofloxacin in triple therapy was associated with greater effectiveness of H. pylori eradication.

**GASTROINTESTINAL DISORDERS – Clinical Outcome Studies**

PG1

**PHARMACOLOGICAL REGIMENS FOR ERADICATION OF HELICOBACTER PYLORI: AN OVERVIEW OF SYSTEMATIC REVIEWS AND NETWORK META-ANALYSIS**

Xin Y., Mansor F., Harbour R.T., Wu G.

**OBJECTIVES:** Half of the world’s population is estimated to be infected with Helicobacter pylori (H. pylori), a bacterium shown to be linked with a series of gastrointestinal diseases. A growing number of systematic reviews have been published comparing the effectiveness of treatment regimens in the eradication of H. pylori, but have not reached a consistent conclusion. This study provides an overview of systematic reviews of pharmacological therapies for the eradication of H. pylori.

**METHODS:** We searched major electronic databases from 2002 to 2013. Studies that met the inclusion criteria were eligible for inclusion in the meta-analysis. Pharmacological regimens for treatment of patients diagnosed as H. pylori infected and pooled the eradication rates in a meta-analysis. A modified version of A Measuring the Accuracy of Reporting of Systematic Reviews (AMSTAR) was used to assess the methodological quality. Where appropriate, network meta-analysis of proton pump inhibitors (PPI) or antibiotics within treatment regimens was conducted.

**RESULTS:** 24 systematic reviews with pairwise meta-analysis were included. In triple therapy, more effective agents such as clarithromycin, spontaneous aspiration incidence and passage of flatus obtained a p-value of 0.001 (p value < 0.05) and bowel movement achieved p-value of 0.0429 (p value < 0.05), which means there is significant difference between the chewing gum and the non-chewing gum in terms of these three variables.

**CONCLUSIONS:** Chewing a gum is an effective intervention in enhancing gastric motility among elderly.

PG2

**TC-325 IN THE MANAGEMENT OF UPPER AND LOWER GI BLEEDING: A TWO-YEAR EXPERIENCE AT A SINGLE INSTITUTION**

Barka M., Alam V., Mallory K.

**OBJECTIVES:** TC-325 is a novel endoscopic hemostatic powder, recently adapted for gastrointestinal (GI) bleeding. However, data on its use, effectiveness, safety, and indications is limited. The aim of this study was to report the experience of using TC-325 powder in a variety of pathologies from the upper and lower GI tract focusing on hemostasis, residency time of the powder on the lesion, and safety. **METHODS:** Retrospective chart review of all patients identified through the gastroenterology database as having received TC-325 therapy between July 2011 and July 2013. Primary endpoints included initial hemostasis and early rebleeding (≤ 72 hours). Data on residency time of the powder, delayed rebleeding, transfusion and intensive care requirements for patients treated with TC-325 were collected. TC-325 is a hemostatic agent, and rebleeding, rebleeding, transfusion and intensive care requirements for patients treated with TC-325 were collected. **RESULTS:** There were 67 treatments using TC-325 in 60 patients. The mean age was 68 years (13 ± 5, with a male preponderance of 65%). There were 21 treatments for non-malignant non-variceal upper GI bleeding, 19 for malignant upper GI bleeding, 11 for lower, and 16 for intra-procedural bleeding/prophylaxis taken. Initial hemostasis was achieved in 66 cases (98.5%), with 6 cases (9.5%) of early rebleeding and 9 cases (13.4%) of delayed rebleeding. No serious adverse events were noted. Remnants of TC-325 powder were not identified even when second-look endoscopy was performed within 24 hours. **CONCLUSIONS:** To our knowledge, this is the largest observational study looking at TC-325 in a variety of pathologies in the upper and lower GI tract. Initial hemostasis was excellent, subsequent rebleeding rates varied according to etiology and appearance of lesions. The residence time of the powder was short-lived with complete elimination from the GI tract within 24 hours of use based on a few observations. No serious adverse events were noted.

**GASTROINTESTINAL DISORDERS – Cost Studies**

PG3

**CHEWING A GUM: EFFECT ON SALIVATION, PASSING OUT OF FLATUS, BOWEL MOVEMENT AND GASTRIC MOTILITY AMONG FILIPINO ELDERLY**


**OBJECTIVES:** This study aims to determine the effectiveness of chewing a gum in inflammatory bowel disease (IBD) patients. Several current studies have indicated that chewing gum may provide a non-pharmacologic treatment option to improve salivation, passing of flatus and bowel movement.

**METHODS:** A quasi-experimental design with pre-test and post-test design was used. A matched sample was used, divided the respondents into: experimental and control group. Experimental group consisted of 10 patients while control group 10 patients. Study was conducted consecutively three days. Lunch was served with a 10 minutes post-lunch rest. The experimental group was given three pellets of chewing gum followed by a rest period of ten minutes-time allotted for maseter muscle to relax. Respondent’s physiological changes such as salivation, passing of flatus and bowel movement were monitored, data documented. Second phase of gum chewing performed and same process followed.

**RESULTS:** Data revealed that outcome of each elderly in relation to the three physiological processes varied a p-value of 0.05, the passage of flatus obtained a p-value of 0.001 (p value < 0.05) and bowel movement has p-value of 0.0429 (p value < 0.05), which means there is significant difference between the chewing gum and the non-chewing gum in terms of these three variables.

**CONCLUSIONS:** Chewing a gum is an effective intervention in enhancing gastric motility among elderly.

PG4

**PREGNANCY OUTCOMES IN WOMEN WITH INFUNDBULAR BOWEL SYNDROME FOLLOWING EXPOSURE TO THIOPURINES AND ANTITUMOR NECROSIS FACTOR DRUGS: A META-ANALYSIS AND SYSTEMATIC REVIEW**

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**OBJECTIVES:** Despite the great concern about safe choices during pregnancy in inflammatory bowel disease (IBD) patients, several current trials have indicated that anti-TNF drugs during pregnancy may be harmful.

**METHODS:** All cohort studies in which evaluated the pregnancy outcomes of thio- purines and/or anti-TNF drugs during pregnancy were included. Thio-purines and/or anti-TNF drugs included thiopurines, methotrexate, cyclosporine, anti-TNF drugs, and alpha-2a plus ribavirin for chronic hepatitis C.

**RESULTS:** Data from 33 studies were included in the meta-analysis. The incidence of OB in the IBD group was 23% vs 7% in controls (OR 3.28, 95% CI = 1.23 to 8.78, p < 0.05).

**CONCLUSIONS:** Based on the current evidence, anti-TNF drugs were not associated with greater effectiveness and lower risk of adverse events than aspirin. Inclusion of elderly women is considered in prescribing and/or continuing medical therapy during pregnancy.