PIG19

PPI GENERAL PRACTITIONERS' PRESCRIBING IN THE TREATMENT OF ACID RELATED GASTROINTESTINAL DISORDERS: THE METHODS: RETROSPECTIVE COHORT STUDY INTO THE PHARMACEUTICAL MARKET IN ITALY
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OBJECTIVES: To investigate the phenomenon of PPI switching in the acid related disorders treatment in an Italian primary care setting during 2005–2008 (before and after PPIs' patents expired) and to estimate the costs of health care resources consumption associated with this phenomenon. METHODS: Retrospective cohort study was performed analyzing data from 127 GPs of Naples in the south of Italy. PPI users for ARD treatment within each study year were selected from source population. Switchers were defined patients changing from one PPI to another within each study year. Multivariate logistic regressions were used to assess the potential predictors of PPI switching and to investigate the factors influencing the direction of the switch. Cost was expressed as Euro 2008 per PPI user. RESULTS: The phenomenon of PPI switching rose from 13.0% in 2005 to 16.7% in 2008 with a peak of 18.8% in 2006. Calendar years, long-term treatments and GERD diagnosis were positive predictors of PPI switching. All years analyzed (versus 2005) were associated with switching to lanoprazole while the 2008 year was strongly associated with switching to omeprazole and pantoprazole. Very long-term treatment (>11 pack/years) group accounted for 66.3% of the total primary care cost. Switchers increased primary care costs by €61.1 compared with no switchers, reaching an incremental cost of €1313.3 per user-year in the case with more than 1 switch. CONCLUSIONS: In Italy the launch of generic PPIs in the national market generates the increasing amount of chronic treatments and therapeutic substitution that will probably have a negative impact on the total savings of costs, achievable by the introduction of generic products. Policy rules favouring generic PPIs prescribing can often influence physicians' decision to select the appropriate treatment for each patient.

PG120

ASSESSMENT OF FEASIBILITY OF THE METHODOLOGICAL APPROACH DESCRIBED IN THE MODEL FOR THE REGULATION OF REIMBURSEMENT PRICES IN GERMANY
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OBJECTIVES: The generic drug market within the statutory health insurance (SHI) in Germany is affected by price regulations like fixed amounts or rebates. Legal amendments led to an increasing importance of price discounts with uncertain impact on pharmaceutical supply of the patients. To assure a justifiable price for the pharmaceutical companies and high quality a model has been developed by the Federal Association of Medicines Manufacturers e. V. (BAH) for the regulation of reimbursements, e. g. cost-benefit based price corridors. Aim of the study is to test the described methods for feasibility. METHODS: The prior published methods for the development of reimbursement price corridors are applied and tested for feasibility by use of the indication Gastroesophageal Reflux Disease (GERD). The methods intend the derivation of more corridors following a defined decision algorithm based on primary and secondary benefit criteria. Therefore a systematic assessment of benefits of proton pump inhibitors (PPIs), H2-Blockers and sucralfate is the foundation of further decisions concerning the number of corridors to consider. Several methodical approaches for the definition of corridor height are tested. RESULTS: Only corridors for the three drugs are more effective than H2-Blocker or sucralfate concerning primary benefit endpoints. The assessment is based on secondary literature for financial and time reasons that will be relevant when implementing the model in real decision problems, too. Based on the results of the benefit assessment two corridors were implemented into the model. The height of each corridor can be derived by use of angles as well as by other mathematical parameters like mean, quartiles etc. Both approaches show specific limitations. CONCLUSIONS: The feasibility of the reported concept can be shown. Several limitations, e.g. assessment of benefits based on secondary literature should be considered. Use of angles or mathematical parameter should be discussed with decision makers before implementation.

PG121

EVALUATING THE POST OPERATIVE PRESCRIBING PRACTICES FOR APPENDICITIS IN PUBLIC HEALTH FACILITIES IN PAKISTAN
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OBJECTIVES: To investigate the pattern of prescribing practices for postoperative appendicitis in public health facilities. METHODS: The study population consisted of the largest public hospital Federal Government Services Hospital (Polyclinic) from Punjab, Pakistan. A sample of 100 prescriptions of post-operative appendicitis was collected from the public hospital. RESULTS: A total of 13.3% prescriptions contain 2 antibiotics, 76.6% prescriptions contain 1 antibiotic, while 20% prescriptions contain 2 antibiotics. On the other hand 23.3% prescription does not contain any injection, 10% prescriptions contain 2 injections, 23.3% prescriptions contain 3 injections, while 43.3% prescriptions contain 4 injections. One hundred percent of prescribers suggested that standard treatment guidelines and essential drug list should be available and updated regularly in hospital and must be strictly followed. A total of 33.3% of prescribers think the essential drug list should be properly regulated and updated should by the hospital management, 33.3% prescribers think by Ministry of Health while 33.3% prescribers thinks it is the duty of Hospital pharmacist. This difference was noted with respect to age of the prescriber (p = 0.020) in the prescribing practice of physicians in the public health facility. CONCLUSIONS: The major reasons for irrational drug use in case of post operative appendicitis were due to polypharmacy, overdose of antibiotics and injection and lack of standard treatment guidelines in the hospital. Thus the extent of irrational drug use in the public sector calls for in-depth investigation of the system factors and motivations that underlying these problems in the practice and the development of interventions that target the causative factors of inappropriate prescribing practice in Pakistan.

GASTROINTESTINAL DISORDERS – Conceptual Papers & Research on Methods

PG122

USING DATA ENVIRONMENTAL ANALYSIS TO ESTABLISH THE EFFICACY AND COST- EFFECTIVENESS EVALUATION OF DRUGS
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OBJECTIVES: The development and research in pharmaceutical industry has constantly created new listing drugs which provide more therapeutic effect and lower side effects than former drugs, but drug cost become more expensive. Therefore, it is very important to balance the trade-off between medical quality and cost reduction, hospitals have to make the decision-making between the former drugs and the new listing drugs, which have similar therapeutic effectiveness. In this regard, the most primary issue in this research is to establish a more objective and efficient decision-making method that consider both effectiveness and cost for the drugs which have the similar therapeutic effect. METHODS: We use data envelopment analysis (DEA) to solve this problem. We screen six critical factors, daily drug expenses, drug profits, side-effect, consumption, patent duration and lead time. Evaluation of relative efficiency of the option with DEA method must be built on the relative performance data of every input or output attributes of each decision-making unit. RESULTS: This study uses five kinds of proton pump inhibitors (PPI) for effectiveness evaluation (the code A, B, C, D drugs to replace its original name), first according to definition of the factors to collect relevant data. We use the DEA method to treat these data, Drug A in the DEA method analysis results is the most effective (6.45342E-06), Drug D is the second (4.2381E-06), Drug B is the third (2.1166E-06) and Drug C is the worst (1.2786E-06). CONCLUSIONS: Through this research model, we transfer complex decision-making goals into various measurable or comparable factors that can compare the relative importance. The evaluation result may not let all decision-makers and users to adopt at all. But it is more comprehensive and objective to evaluate the effectiveness of decision-making models than that in the past.

INDIVIDUAL'S HEALTH – Clinical Outcomes Studies

PG123

EMERGENCY CONTRACEPTION FOR UNINTENDED PREGNANCY, ROLE OF ULIPRISTAL, A NOVEL PROGESTERONE RECEPTOR MODULATOR MODULATOR
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OBJECTIVES: Unintended pregnancies represent a global health problem with over 80 million annual pregnancies. These are associated with an increased risk of morbidity and a considerable impact on women's quality-of-life. Globally, 38% of all pregnancies are unintended resulting in 42 million induced abortions and 34 million unintended births. This corresponds to 43% of all child-births worldwide. A novel drug “Ulipristal” was introduced in Europe in May 2009 with efficacy beyond 72 hours after unprotected coitus. The objective of this review was to determine the safety and efficacy profile of ulipristal compared to levonorgestrel. METHODS: A number of databases (PUBMED, EMBASE, POPLINE, CENTRAL and clinicaltrials.gov) were searched and the citations screened to identify randomised controlled trials (RCTs) reporting efficacy and safety outcomes of ulipristal. Grey literature was searched to identify the cost associated with unintended pregnancies. Summary-statistics (Random-Effects: DerSimonian-Laird) were used to assess pregnancy and adverse-events outcomes. RESULTS: Seven RCTs were identified and only two reported pregnancy outcomes. In a pooled analyses when compared to levonorgestrel, ulipristal showed better efficacy results in preventing pregnancy following unprotected coitus on day 1 and day 3 (Day 1, RR = 0.435, [95% CI:0.148, 1.279] and Day 3, RR = 0.376, [95%CI:0.110, 1.283]). However, these results were non-significant. Conversely, subgroup analysis showed that if administrated on day 2, this trend was reversed with administration of levonorgestrel being associated with fewer pregnancies (RR = 1.309, [95%CI: 0.572, 2.996]). The frequency of adverse events like nausea, headache, fatigue and dizziness was similar with both the drugs. Unintended pregnancies were found to be associated with huge costs that amounted up to US $ 5 billion in US during