

relative standard error > 30% were considered not evaluable.

**Results:** Overall, the percentages of evaluable drugs by survey were NHANES 16.3% (118/722 drugs), NHAMCS-ED 17.9% (149/834), NHAMCS-OPD 24.6% (308/1,253) and NAMCS 25.9% (295/1,141). The analysis of drug classes increased the evaluable percentages of NHANES to 50.0% (55/110), of NHAMCS-ED to 53.1% (69/130), of NAMCS to 57.4% (81/141) and of NHAMCS-OPD to 64.9% (100/154). Generally, the surveys produced acceptable estimates for prescription drugs as a whole, common drugs, and classes for each of the subgroups (e.g., sex, older age groups, race, and reported medical history). For the top five drugs, estimates were typically unreliable for younger age groups (0–14 and 15–24), subgroups based on diagnoses (NAMCS, NHAMCS-ED, NHAMCS-OPD), and the underweight subgroup (NHANES, NAMCS, NHAMCS-OPD).

**Conclusions:** The NCHS surveys provided evaluable estimates of drug utilization for a number of drugs and subgroups. In some subgroups defined by demographics or diseases, the survey sample also yielded evaluable estimation of drug use. Depending on the product or subgroup studied, combining surveys across several years may increase the reliability of drug utilization estimates. These surveys provide valuable data for nationally representative estimates of utilization of a number of drugs and drug classes on a population and utilization level.

#### 100. Abstract withdrawn by author.

#### 101. Development of Intervention Tools Demanded by the International Monetary Fund and the European Union To Improve Prescribing Quality of Acid Suppressive, Anti-platelet and Anti-Inflammatory Drugs

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**Background:** Portugal is in economic crisis due to overspending in many areas including drug prescribing. Thus, prescription rules based on international standards were demanded by September 2011 on a May 2011 memorandum of understanding for a 78 billion euro bailout loan to the country from a Troika of the International Monetary Fund, European Commission, European Central Bank.

**Objectives:** To swiftly develop rules as intervention tools to improve prescribing quality in three areas where patient safety and health system sustainability were being compromised: acid-suppressive, anti-platelet, and anti-inflammatory therapies.

**Methods:** This Portuguese team created the rules by adapting existing materials from an independent group of Harvard Medical School and Brigham and Women's Hospital Pharmacoepidemiology authors: iDiS. It produces educational outreach summaries backed by thorough reviews. First, materials were translated. Second, clinical practice differences were accounted for. Third, the strongest evidence was selected for the rules. Fourth, focus groups with family physicians provided input. Fifth, Portuguese Medical Association specialists were consulted.

**Results:** Focus groups suggested terminology and format modifications to increase acceptability. The Medical Association identified evidence gaps. These originated changes negotiated with original authors. The three sets of rules were issued by the Ministry of Health in September 2011 for public consultation.

**Conclusions:** The adaptation was extensively peer-reviewed, delivered on a tight timeline. Faced with time constraints and in crisis mode, adapting prescribing materials from recognized academic groups is a feasible alternative to creating rules afresh. Also, the rules outside origin made it easier to shield them from unduly local commercial influences. It is expected that pharmacoepidemiology will impact clinical practice: These rules have an estimated potential to save 12 million euro a year per set while improving patient safety, e.g., reduce Cox-2 inhibitors prescriptions in patients with previous cardiovascular events.

#### 102. Contraceptives Use and Knowledge among Medical and Pharmacy Students

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**Background:** The early beginning of sexual activity and the inconsistent use of contraceptive methods are characteristics of young people sexuality which expose them to unplanned pregnancies and sexually transmitted infections. The correct knowledge and information on contraception is essential to change attitudes and therefore behaviors.

**Objectives:** The main objective of this study is to determine the prevalence of contraceptives use among medical and pharmacy students. We also want to characterize student's knowledge on contraceptives.

**Methods:** This was a cross-sectional study. Data were collected from a questionnaire filled by NOVA Medical School and ESTeSL-IPL students. All students, over 18 years old, were eligible for the study. Using a conve-