RELIABILITY AND VALIDITY TESTING OF THE POTENTIAL FOR METHODOLOGICAL BIAS ASSESSMENT TOOL FOR USE WITH RANDOMIZED CONTROLLED TRIALS

Objective: To (1) describe the theoretical background and development of a tool for assessing the potential for bias in randomized controlled trials, (2) report the results of reliability and validity testing, and (3) describe use of the tool in an example meta-analysis.

Methods: The Potential for Methodological Bias Assessment Tool (PMBAT) contains items to assess the adequacy of methods and findings related to five factors: withdrawals, blinding, equivalence of groups at baseline, adherence, and manufacturer influence. Ten points, 5 for methods and 5 for findings, are available for each item except manufacturer influence (5 points), for a total of 45 points. For reliability testing, the tool was used to assess a study with high potential for bias and a study with low potential for bias. The data were analyzed using a repeated measures ANOVA and calculation of a partial eta squared. For the validity test, a funnel plot was constructed for studies included in a published meta-analysis of garlic for hypercholesterolemia. The tool was also used to test for methodological bias in an example meta-analysis of amiodarone for atrial fibrillation.

Results: The study with low potential for bias was scored higher (98.6% of the time). The partial eta squared was 0.86 for the reliability test. The funnel plot for the garlic studies indicated substantial bias; high potential for bias was associated with large treatment effects and low potential for bias with little or no treatment effect, a finding that agreed with the conclusions of the authors. In the example amiodarone meta-analysis, the mean score was 19.9 (44%), the funnel plot indicated excessive variability but no methodological bias.

Conclusion: PMBAT appears to be of acceptable reliability and validity for assessing bias in randomized controlled trials included in meta-analyses and facilitates the recognition of biased findings from meta-analysis.

ROLE OF HEALTH INSURANCE TYPE IN THE SELECTION OF HMG-COA REDUCTASE INHIBITORS (STATINS) FOR PATIENTS AT A HOSPITAL IN SOUTHERN THAILAND

Objective: To examine the role of health insurance type in the selection of brandname and generic statin drugs at a hospital in southern Thailand.

Methods: A cross-sectional study design was used. Prescription data for 375 patients at a prescriber level have been collected from an outpatient department at a hospital in southern Thailand. Only newly diagnosed hyperlipidemia patients who used statin drugs were included. The dependent variable was whether the brandname or generic statin drug was prescribed. Independent variables comprised predisposing, enabling, and need variables. The predisposing variables included patient’s age, gender, marital status, religion, employment, and education, while the enabling variables were patient’s monthly income and type of health insurance. The need variables included disease severity, comorbidity, and perceived health status. Descriptive analyses were conducted. The association of predisposing, enabling, and need variables with the probability of a statin drug being prescribed with a brandname or generic product was examined using multiple logistic regression.

Results: To date, data from 106 patients’ prescriptions were collected. The mean (± SD) age of the patients was 59.9 ± 12.8 years. Approximately 62% of patients were women, and 68% were beneficiaries of the Civil Servant Medical Benefits Scheme (CSMBS). About 45% of the patients had borderline high levels of LDL cholesterol. Almost 70% of them received generic statin drugs. More than 80% of the patients had one or more chronic diseases in addition to hyperlipidemia. Preliminary logistic regression analysis showed that the CSMBS patients were 10 times more likely to receive the brandname statin drugs, compared with the Universal Coverage Scheme patients.

Conclusion: Type of health insurance had a major impact on the selection of statin drugs for patients at a hospital in southern Thailand.

SHOULD PHARMACISTS HAVE THE RIGHT TO CONSCIENTIOUSLY OBJECT TO DISPENSING CONTRACEPTION? A PRESCRIBER’S PERSPECTIVE

Objective: To determine if prescribers support a pharmacist’s right to conscientiously object to dispensing contraception.

Methods: Mailing lists of physicians and midlevel practitioners practicing in Arizona were obtained from the respective licensing agencies. Names were randomly selected from each category for a total of 924 participants. A 19-question survey was mailed to each participant. Likert-type questions were used to determine whether providers supported the prescriber’s and pharmacist’s right to conscientiously object to dispensing contraception, whether pharmacists had a right to question a patient as the purpose of the contraception, and whether objecting pharmacists had a duty to refer patients to another pharmacist. Data were obtained concerning the prescriber’s practice such as whether they stocked contraception in their office, referred patients to known nonobjecting pharmacists, or reported patient complaints of being unable to fill their contraception prescription due to a pharmacist who conscientiously objected.

Results: In all, 33.2% of surveys were returned. While 52.8% of respondents agreed that prescribers have the right to conscientiously object, only 30.3% agreed that pharmacists have the right to object. A total of 79.9% of prescribers agreed that it is acceptable to write a prescription for oral contraception to be used as emergency contraception (i.e., intentionally deceive the pharmacist). While 89% of prescribers agreed that an objecting pharmacist has a duty to refer a patient to another pharmacist who will dispense, only 51.3% would refer their patients to another prescriber.

Conclusion: Although the majority of Arizona prescribers believe they have the right to conscientiously object, a majority does not believe pharmacists should share that same right. Prescribers may believe they have a greater fiduciary responsibility to their patients or believe in a hierarchy or paternalistic relationship with pharmacists. More research is needed to delineate this relationship in reference to this emotional ethical issue.

SITTING ON THE FENCE: PREDICTING FORWARD AND BACKWARD MOVEMENTS IN PHARMACY-BASED IMMUNIZATION SERVICES

Objective: With respect to offering immunization services in a pharmacy, to describe the extent of forward and backward movement, identify pharmacy characteristics that predict movement, and analyze the influence of perceived attributes of immunization services on such movement.

Methods: Pharmacy-based immunization services can be carried out via outsourced and in-house service mechanisms. These are two different modes for allocating work, with an in-house mechanism generally involving a greater level of organizational change. Over time, a pharmacy using outsourcing to provide immunization services can continue to use outsourcing, move forward by implementing an in-house service, or move backward by not providing any immunization service. This is a cross-sectional descriptive study of Washington State community pharmacies using a key informant mail survey. Of 244 total responding pharmacies, 106 that provided an outsourced service were included. Pharmacies that implemented an in-house service before implementing an outsourced service and pharmacies that provided both in-house and outsourced services were excluded. Based on a pharmacy’s immunization service transitions, the pharmacy was classified as a Backward Mover, Status Quoer, or Forward Achiever. Relations between this classification and study variables (pharmacy characteristics and perceptions of immunization services) were analyzed using bivariate and multinomial logistic regression techniques.

Results: Of 106 study pharmacies, 52.8% maintained the status quo by continuing to use the outsourced mechanism, 22.6% moved backward by rejecting any immunization service, and 24.5% moved forward by providing an in-house service. Results show that the (1) odds of being a Backward