PVCl06 RE-HOSPITALIZATION RATES OF ACUTE CORONARY SYNDROME PATIENTS IN REAL WORLD CLINICAL PRACTICE: OBSERVATIONS FROM A NATIONAL ADMINISTRATIVE CLAIMS DATA

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OBJECTIVES: To determine hospitalization and mortality rates of patients experiencing at least one episode of re-hospitalization following hospital discharge among patients with acute coronary artery disease (ACS) patients in real-world clinical practice. METHODS: Commercially-insured patients (age ≥18 years) with an index hospitalization for ACS (ICD-9-CM codes for acute myocardial infarction or unstable angina (UAI]) between 1/1/2007-7/31/2010 were identified from medical claims in the HealthCore Integrated Research Database (HIRD). Patients with ACS events within one year prior to index hospitalization were excluded. RESULTS: The resulting estimates of costs and survival were standardized using separate regression models that estimated expected cost and survival values for each patient. CONCLUSIONS: The re-hospitalization and mortality rates for ACS patients within 30 days and 12-months post-index hospitalization discharge as observed in real-world clinical practice remain high. Use of more effective therapies may provide an opportunity to improve important clinical and economic outcomes in ACS patients.

PVCl07 IDENTIFYING EFFICIENT ACUTE CLINICAL PATHWAYS FOR CHEST PAIN: USING RISK ADJUSTED COST-EFFECTIVENESS (RAC-E) TO COMPARE HOSPITALS USING LINKED, ROUTINELY COLLECTED DATA

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OBJECTIVES: To determine hospitalization and mortality rates of patients experiencing at least one episode of re-hospitalization following hospital discharge among patients with acute coronary artery disease (ACS) patients in real-world clinical practice. METHODS: Routinely collected data on hospital separations (including costs) and outcomes. Setting - A single centre (district general hospital) in England was used for the estimation of the relative reduction of mortality caused by the increase of treatment uptake in the population at risk. We apply this method to estimate the reduction of cardiovascular disease deaths in Ontario, if treatment rates for CHD interventions were to be increased from 2005 levels to the recommended benchmark utilization of 90%. The Mant-Hicks model for polypharmacy is adopted as the uptake of treatments are assumed to be independent of each other. RESULTS: Using the proposed PIF-based method, we estimated that increasing treatment to benchmark levels results in a reduction of cardiovascular mortality of 22.5%. The standard method gives a reduction of 17%, probably due to underestimated of the case fatality. CONCLUSIONS: Here we present an alternative method for the estimation of the effect of treatment uptake increase to the reduction of mortality. Our example suggests that the magnitude of bias associated with the standard method may be substantial. This approach may be a useful tool for epidemiological and health care research.

PVCl08 CARDIOVERSION TREATMENT PATTERNS AND OUTCOMES AMONG ACUTE ATRIAL FIBRILLATION PATIENTS IN 5 EUROPEAN COUNTRIES

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OBJECTIVES: We examine current treatment patterns associated with the use of anticoagulants and cardioversion therapies to evaluate treatment patterns among patients with acute atrial fibrillation (AF) in France, Italy, Germany, Spain, and UK. METHODS: Data were collected cross-sectionally as observed by physici ans from April to June 2010. RESULTS: Among 2,997 patients, 1,352 (45%) re ceived anticoagulants and ACS; with 1,082 (80%) successfully cardioverted. Of these, 931 (69%) of those treated pharmacologically, 86% of those successfully had complete information on time to achieve sinus rhythm and were further assessed here. Amiodarone was administered to most (49%), with similar proportions receiving intravenous (IV) (53%) and oral (46%) formulations. Amioda rone IV was associated with a significantly shorter median conversion time (8 hours) compared to oral (36 hours). Patients treated with flecainide (26%) had the shortest median time to cardioversion (4 hours), while patients on propafenone (15%) were next (6 hours). Median cardioversion time varied by country. Specifi cally, patients in France took longer to convert on average (9 hours) than those in Spain and Italy (a difference of 1 and 2 hours, respectively) compared to an average difference in median conversion time of 4 hours between these treatments overall. CONCLUSIONS: While amiodarone had a longer median time to cardioversion, faster acting agents, such as flecainide and propafenone, had conversion time at a median time of 12 and 48 hours compared to an average of 7 and 24 hours, respectively, in other countries. In Germany, little difference was observed with median conversion times of 9 and 10 hours for amiodarone IV and oral, respectively. Me dian conversion times were also similar between amiodarone IV and flecainide in Spain and Italy (a difference of 1 and 2 hours, respectively) compared to an average difference in median conversion time of 4 hours between these treatments overall. Cardiovascular Disorders - Research on Methods

PVCl09 BEYOND CASE FATALITY: A NEW METHOD TO ESTIMATE THE EFFECT OF INCREASING TREATMENT UPTAKE ON MORTALITY

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OBJECTIVES: Epidemiological models have been widely used to estimate how increased uptake of medical and surgical treatments affect mortality and related outcomes. Standard methods rely on the estimate of the case fatality, defined as the risk of death in the absence of the treatment. Because most patients receive some treatment, mortality rates where some treatment is present are often used instead of case fatality rates, leading to biased results. A method that does not rely on case fatality is required. METHODS: We have used the proposed PIF-based method for the calculation of the Potential Impact Fraction (PIF), an epidemiological measure that is equal to the proportional reduction in the incidence of a disease or mortality, resulting from a specific change in the distribution of a risk factor in the population, and is not dependent on the estimation of the relative reduction of mortality caused by the increase of treatment uptake in the population at risk. We apply this method to estimate the reduction of cardiovascular disease deaths in Ontario, if treatment rates for CHD interventions were to be increased from 2005 levels to the recommended benchmark utilization of 90%. The Mant-Hicks model for polypharmacy is adopted as the uptake of treatments are assumed to be independent of each other. RESULTS: Using the proposed PIF-based method, we estimated that increasing treatment to benchmark levels results in a reduction of cardiovascular mortality of 22.5%. The standard method gives a reduction of 17%, probably due to underestimated of the case fatality. CONCLUSIONS: Here we present an alternative method for the estimation of the effect of treatment uptake increase to the reduction of mortality. Our example suggests that the magnitude of bias associated with the standard method may be substantial. This approach may be a useful tool for epidemiological and health care research.

PVCl10 DEVELOPMENT AND VALIDATION OF A SHORT PROBE MEASURE OF HEALTH STATUS FOR INDIVIDUALS WITH ACUTE MYOCARDIAL INFARCTION: THE MYOCARDIAL INFARCTION DIMENSIONAL ASSESSMENT SCALE (MIDAS)

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OBJECTIVES: To develop and validate a disease-specific health status measure for individuals with myocardial infarction (MI). METHODS: The development of the Myocardial Infarction Dimensional Assessment Scale (MIDAS) followed three main stages: Stage 1 consisted of in-depth, semi-structured, exploratory interviews conducted with a sample of 31 patients to identify areas of concern and reasons for MI. These interviews generated 48 candidate questions. In stage 2 the 48-item questionnaire was used in a postal survey to identify appropriate rephrasing/shortening, to determine acceptability and to help identify sub-scales of the instrument. In stage 3 different endorsements of MI in 240 patients in stage 3 the construct validity of MIDAS subscales was examined in relation to clinical and other health outcomes. Setting - A single centre (district general hospital) in England was used for stages 1 and 3 and a national postal survey was conducted for stage 2. Patients - A total of 410 patients were recruited for the national survey (stage 2). Full data was available on 348 (85%) patients. 155 patients were recruited to test construct validity (stage 3). RESULTS: The MIDAS contains 35 questions measuring seven areas of health status: physical activity, insecurity, emotional reaction, dependency, diet, concerns over medication and side effects. The measure has high face, internal and construct validity and is suitable for use in a variety of settings for patients with myocardial infarction.

PVCl11 IDENTIFICATION OF RESPONSE SHIFT AMONG HYPERTENSIVE PATIENTS WITH CORONARY ARTERY DISEASE USING TWO STRUCTURAL EQUATION MODELING TECHNIQUES

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OBJECTIVES: To develop and validate disease-specific health status measures for patients with myocardial infarction (MI). METHODS: The development of the Myocardial Infarction Dimensional Assessment Scale (MIDAS) followed three main stages: Stage 1 consisted of in-depth, semi-structured, exploratory interviews conducted with a sample of 31 patients to identify areas of concern and reasons for MI. These interviews generated 48 candidate questions. In stage 2 the 48-item questionnaire was used in a postal survey to identify appropriate rephrasing/shortening, to determine acceptability and to help identify sub-scales of the instrument. In stage 3 different endorsements of MI in 240 patients in stage 3 the construct validity of MIDAS subscales was examined in relation to clinical and other health outcomes. Setting - A single centre (district general hospital) in England was used for stages 1 and 3 and a national postal survey was conducted for stage 2. Patients - A total of 410 patients were recruited for the national survey (stage 2). Full data was available on 348 (85%) patients. 155 patients were recruited to test construct validity (stage 3). RESULTS: The MIDAS contains 35 questions measuring seven areas of health status: physical activity, insecurity, emotional reaction, dependency, diet, concerns over medication and side effects. The measure has high face, internal and construct validity and is suitable for use in a variety of settings for patients with myocardial infarction.