TRENDS IN MEDICATION PRESCRIBING FOR ACNE IN THE UNITED STATES ACCORDING TO PATIENT AGE

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OBJECTIVE: The purpose of this descriptive study was to examine the most common treatment classes based on drug class and the describe the differences in prescribing methods across age groups. METHODS: Information was collected from the Pharn-Metrics Integrated Patient-centric Database, a large collection of administrative claims. At the time of this analysis in 2004, there were more than 80 public and private health care plans included in the database, representing approximately 9.6 million unique patients. Analysis was performed using the Total Resource Utilization (TRU) Benchmarks process, a descriptive methodology organizes and separates information, from a third-party database, into accessible benchmarks for comparison. These results were then factored against age groups. The age group breakdown is as follows: 12–14, 15–17, 18–24, and 24–35.

RESULTS: The most commonly prescribed medications in the United States for acne were: New generation retinoid products, benzoyl peroxide-based combo products, topical corticosteroids by Rx only, Topical antibiotics, common topical retinoid products, oral anti-biotics, as well as antidepressants and benzodiazepines in some age categories. The age breakdown was as follows: Ages 12–14: Oral antibiotics (38.8%), Benzoyl peroxide-based products (32.7%), New generation retinoid products (30.1%), Topical antibiotics (21.7%), Common topical retinoid products (20.7%). Ages 15–17: Oral antibiotics (55.0%) Benzoyl peroxide-based products (32.0%), New generation retinoid products (31.3%), Topical antibiotics (21.3%), Common topical retinoid products (21.1%). Ages 18–24: Oral antibiotics (52.6%), New generation retinoid products (28.3%), Benzoyl peroxide-based products (26.8%), Oral contraceptives (24.8%), Topical antibiotics (20.4%). Ages 25–35: Oral antibiotics (44.2%), Oral contraceptives (33.0%), Topical antibiotics (22.1%), Benzoyl peroxide-based products (21.5%), New generation retinoid products (20.1%). CONCLUSION: It was determined that significant differences by medication type do in fact occur in all the different age groups. The discrepancies can be clearly observed and on physician to physician bases, one can determine if their own particular prescribing method is appropriate.

URINARY/KIDNEY DISORDERS—Clinical Outcomes Studies

CHRONIC KIDNEY DISEASE (CKD) AMONG INPATIENTS WITH REDUCED KIDNEY FUNCTION (RKF) ON HOSPITAL ADMISSION

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OBJECTIVE: To evaluate the prevalence of chronic kidney disease (CKD) in hospitalized patients and determine the proportion of these patients with/without a diagnosis of CKD based on estimated glomerular filtration rate (eGFR). METHODS: A retrospective analysis of US hospital data in the Cerner Health Facts® database during January 2000 and March 2007 was conducted. Inclusion criteria were age 18 years, a SCr measurement 3–18 months before hospital admission and seven days before or three days after hospital admission. Patients who had dialysis, acute renal failure and/or mixed inpatient eGFR (some values <60 and others >60 mL/min/1.73m²) were excluded. To minimize bias and misclassification due to hospitalization circumstances, 2 eGFR values <60 mL/min/1.73m² were used to designate patients with CKD. The first eGFR was determined from the closest SCr measurement within 3–18 months before hospitalization and the second eGFR was determined using a SCr seven days before or three days of hospital admission. The MDRD-4 equation was used to calculate eGFR. RESULTS: Of the 1,265,014 patients hospitalized over the seven years evaluation, 193,221 met the inclusion criteria. Approximately 21% of patients were subsequently excluded for dialysis, acute renal failure, and/or mixed eGFR (n = 49,937). Overall, 27% of patients (n = 41,495) had an eGFR < 60 mL/min/1.73m² at admission. Of these, 81% (n = 33,443) had an eGFR < 60 mL/min/1.73m² prior to admission. Of this subset likely to have CKD based on chronically low eGFR, only 26% (n = 8,560) had a diagnosis of CKD at admission based on ICD-9-CM diagnosis. CONCLUSION: Our findings suggest that most patients with RKF upon hospital admission may have CKD. Of these, few seem to have supportive CKD diagnosis codes. Identification and diagnosis of this patient population during hospitalization may provide a unique opportunity to improve disease management during the inpatient stay or after discharge, and may result in earlier nephrology referrals if appropriate.

LONGITUDINAL DECLINE OF RENAL FUNCTION IN HYPERTENSIVE VETERANS

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OBJECTIVE: To determine the association of blood pressure (BP) control and trajectory of renal function over seven years in a cohort of hypertensive veterans; and to determine the association between different classes of antihypertensive medications and renal function quantified by glomerular filtration rate (GFR). METHODS: Data were obtained from Southern Arizona Veterans Affairs Health Care System from January 1, 2000 through December 31, 2006. Inclusion criteria consisted of veterans ≥ 21 and < 90 years of age with at least two systolic BP measurements, and two serum creatinine measurements at least 90 days apart who had an ICD-9 hypertension diagnosis. Veterans were divided into time-varying controlled or uncontrolled hypertension groups based upon JNC-7 definitions. Factors examined included age, sex, race/ethnicity membership, and antihypertensive medication use. Medication categories included angiotensin converting enzyme inhibitor (ACE), beta-blocker (BB), or calcium channel blocker (CCB) monotherapy, or combinations of ACE, BB, and CCB. GFR was estimated using serum creatinine level, age, sex, and race/ethnicity. Analysis was performed using a generalized linear mixed model with patient as random effect. RESULTS: A total of 25,819 subjects met inclusion/exclusion criteria: 12,411 with controlled and 13,406 with uncontrolled BP. Males comprised 11,669 of controlled and 12,864 of uncontrolled groups. Mean age (SD) at index was 64.9 (11.9) and 66.6 (11.6) years in the controlled and uncontrolled groups respectively. Annual decline in GFR was 0.32 mL/1.73m² after adjusting for covariates and medication use. There was a significant interaction between BP control and age (p < 0.001). ACE, BB, CCB use was associated with higher GFR (1.1, 95% CI 0.7–1.4; 0.5, 95% CI 0.1–0.8; and 0.8, 95% CI 0.2–1.3 mL/