MUSCULAR-SKELETAL DISORDERS – Health Care Use & Policy Studies

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GENDER AND RACIAL DISPARITY OF SERUM VITAMIN D INADEQUACY: RESULTS FROM NATIONAL DATA IN THE UNITED STATES
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OBJECTIVES: To describe the level of serum vitamin D (25(OH)D) inadequacy by gender and race among US adults using national level data. METHODS: Cross-sectional study was conducted using the National Health and Nutrition Examination Survey (NHANES) from 2001 to 2006, i.e., the latest data including serum 25(OH)D concentration, including all US adults (>~40 years). Predictive factors of serum 25(OH)D inadequacy (i.e., <20 ng/ml) were evaluated using study variables including patient demographics, health and lifestyle factors, health care utilization, insurance coverage, income, and clinical comorbidities. All analyses were performed with SAS statistical software, version 9.1, at an alpha of 0.05. RESULTS: Of 125 million adults, 37.3% had inadequate serum 25(OH)D levels. The inadequacy was higher in female than male participants (41.6% vs. 34.0%, respectively). Among race/ethnicity groups, the prevalence of serum 25(OH)D inadequacy was significantly higher in non-Hispanic black populations (77.6%), Hispanic populations (50.5%), and other race (53.2%) than non-Hispanic whites (29.7%) (p<0.001). Participants who had no health insurance coverage were 3 times more likely to have inadequate serum 25(OH)D inadequacy (47.4% vs. 35.9%; p<0.0001). CONCLUSIONS: A significant number of US adults maintain inadequate serum 25(OH)D level. The prevalence of the inadequacy was significantly higher in female participants and black populations as compared to their counterparts. Coordinated efforts through comprehensive programmatic approaches or improved collaboration including other health care professionals such as pharmacists and nutritionists can be a key element to improve vitamin D adequacy in US health care system.

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PATTERNS OF DISEASE REMISSION AMONG PATIENTS WITH RHEUMATOID ARTHRITIS TREATED WITH BIOLOGIC THERAPIES IN THE UNITED STATES
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OBJECTIVES: To assess the patterns of disease remission among Rheumatoid Arthritis (RA) patients recently treated with biologic therapies in the United States (US). METHODS: A multi-center medical chart-review study of RA patients was conducted to collect information on clinical history, therapy, and health outcomes to collect de-identified data on patients who are currently on a biologic or recently discontinued a biologic within past 3-months. Physicians were screened for their patient volume and subsequently recruited from a list of physicians to be geographically representative of the US. Patient charts of ~10 successive patients visiting each center/practice during study period were selected. Physicians abstracted patient diagnosis, treatment patterns/dynamics and patient symptomology/disease severity. RESULTS: In 4Q2011, 109 physicians abstracted 851 eligible RA patient charts. Patient mean age=51.9yrs, females=73%, 69% and were on 1st line and 2nd line biologic respectively. Overall, 48% of patients were in remission. Remission rate differed by biologic lines: 1st-line=51%, 2nd-line=45%, 3rd-line=26%, 4th-line=27%. Among those with lab measures, results differed between those in remission vs. those who were not- mean ESR(mm/h): 18.9 vs 37.2, mean CRP[mg/dL]: 1.6 vs 5.3, Rheumatoid Factor (% positive): 87% vs 89%, Anti-CCP (% positive): 74% vs 79% and HLA- B27 (% positive): 7% vs 9%. Among those with data, recent (mean) disease severity scores differed between those in remission vs. those who were not: Tender Joint Count: 1.6-2.0, Swollen Joint Count: 3.8-4.4, HAQ: 0.6-2.5 and DAS28: 2.2-4.1. CONCLUSIONS: Among this large cohort of RA patients who received a biologic, disease severity differed with treatment. Time to discontinuation of 1st biologic by 50% of patients also varied across SEU, decreasing with increasing disease severity.