and compared to those for the reference infliximab. **RESULTS:** The current CDR SEB submission procedure represents a significant deviation from that for non-SEB products. The CDR Recommendation for the infliximab SEB included comments related to the clinical evidence demonstrating similar efficacy and safety to the reference infliximab. The indications recommended for reimbursement by the CDR are also consistent with those of Health Canada. We expect that infliximab SEB will undergo pan-Canadian Pharmaceutical Alliance negotiation, which would be followed by reimbursement decisions by the public plans. **CONCLUSIONS:** The first monoclonal antibody SEB received a positive CDR recommendation, in part, based on comparative clinical data demonstrating similar efficacy and safety. Non-monoclonal antibody SEBs lacking comparative phase III clinical studies have recently been approved by the European Medicines Agency. The CDR's assessments of these products will be of great interest.

PMS90

IMPACT OF OVERWEIGHT/OBESITY ON ARTHRITIS–ATTRIBUTABLE BURDEN AND HEALTH–RELATED QUALITY OF LIFE AMONG ADULTS WITH ARTHRITIS

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OBJECTIVES: The incremental impact of overweight/obesity on the chronic disease burden and health–related quality of life (HRQOL) among individuals with arthritis is not fully understood. This study aimed to determine the additional influence of overweight/obesity on arthritis–attributable burden (joint limitation, work limitation, social activity limitation, and joint pain) and HRQOL (general health status, physical HRQOL, mental HRQOL, activity limitations) among a representative national sample of adults with arthritis in the United States (US). **METHODS:** This study involved a cross–sectional, retrospective analyses of the 2013 Behavioral Risk Factor Surveillance System (BRFSS) data. The study sample included adults (≥18 years) with arthritis and related disorders. Based on their body mass index (BMI), participants were categorized into six groups: underweight, normal weight, overweight, and class I/II/III obese. Multivariable logistic regression models were fitted to assess the study objectives. Data analyses were conducted using SASv9.3 (PROC SURVEY) procedures. **RESULTS:** The study sample included 157,113 adults with arthritis, of which 138,707 (88.2%) were also overweight/obese. Class III obese adults with arthritis had higher odds of joint limitations (Odds ratio [OR] = 1.439), work limitations (OR = 1.144), social activity limitations (OR = 1.368), and joint pain (OR = 1.099) compared to normal weight adults. Class III obese adults also had greater odds of poor physical HRQOL (OR = 1.141), mental HRQOL (OR = 1.273), and activity limitations (OR = 1.233) in comparison to adults with normal weight. A similar pattern was observed when overweight/class I/II obese adults with arthritis were compared to normal weight adults with arthritis. **CONCLUSIONS:** Study results highlight a significant negative impact of overweight/obesity on arthritis–attributable burden and HRQOL among individuals with arthritis. Weight management is critical towards improving HRQOL and alleviating the burden of arthritis. Providers should emphasize weight management during their interaction with adults with arthritis.

PMS91

ASSESSMENT OF OSTEOPORSIS KNOWLEDGE AND PERCEPTION AMONG FEMALE UNIVERSITY STUDENTS IN QUETTA, PAKISTAN

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OBJECTIVES: The present study intended to investigate knowledge about osteoporosis among female students of university in Quetta., Pakistan. **METHODS:** A Cross-sectional study was used to assessed the knowledge by a pre-validated self-administered questionnaire containing 20 disease related questions. Convenience sampling technique was used for data collection. Descriptive analysis was used to demonstrate the characteristics of the study population. Inferential statistics (Mann-Whitney U test and Kruskal Wallis tests, p< 0.05) were used to assess the significance among study variables. **RESULTS:** Out of 162 female students, 153(81.5%) were single and were science faculty students 123 (75.9%) with the majority of the age group of less than 24 years. Mean age of the study participants was 21.91±1.74years. 134 (82.7%) have not been previously diagnosed of bone related problem or osteoporosis. The mean score of knowledge was 13.01±2.9 (max 20). Department of study and living status were significantly associated with knowledge scores. **CONCLUSIONS:** The study concluded that females of science faculty and who had a better life style had better understanding of the disease, osteoporosis, but they need to know the availability of treatment for this disease in Pakistan and it is also necessary for them to know more about some specific risk factors.

PMS92

THE IMPACT OF NEGATIVE TRIAL RESULTS ON THE USE OF BLOOD TRANSFUSIONS

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OBJECTIVES: Clinical trials that find that widely-used treatments do not improve patient outcomes can reduce costs, but only if physicians modify their practice patterns accordingly. The FOCUS trial, which was published in the New England Journal of Medicine in late 2011, found that post-operative red blood cell transfusions do not improve outcomes among patients undergoing surgery for hip fracture with hemoglobin levels over 8 g/dL. **METHODS:** We studied transfusion trends in 6,437 patients who underwent surgery to repair a hip fracture between 2009 and 2013 at 18 US community hospitals. The hospitals are unaffiliated but report data to the Institute for Health Metrics. The data include diagnosis and procedure codes, hemoglobin values, and red blood cell transfusions. **RESULTS:** Age-, sex-, and comorbidity-adjusted transfusion rates among patients with a minimum post-operative hemoglobin value of 8 to 10 g/dL declined by 19 percentage points following the publication of the FOCUS trial ($p < 0.001$). Transfusion rates among patients with a minimum hemoglobin value of <8 g/dL, a concurrent control group, were unchanged. Hospital-level variation in transfusion rates declined significantly. **CONCLUSIONS:** The FOCUS trial had a major impact on practice patterns. Consistent with the theory that practice variation is due to clinical uncertainty about the benefits from alternative approaches to treatment, publication of the trial reduced provider-level variation. The policy implication is that the government should fund trials of services thought to be ineffective because physicians respond to high-quality evidence. In most cases, the expected savings are large in relation to the trial costs.

RESPIRATORY-RELATED DISORDERS - CLINICAL OUTCOMES STUDIES

PRS1

TRANSFUSION-RELATED ACUTE LUNG INJURY (TRALI) OCCURRENCE AMONG INPATIENT MEDICAID BENEFICIARIES, UNDER 65 YEARS OF AGE, AS RECORDED BY LARGE ADMINISTRATIVE DATABASES DURING 2007-2010

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OBJECTIVES: Transfusion-Related Acute Lung Injury (TRALI) is a serious transfusion complication resulting in pulmonary edema and respiratory failure. The study objectives were to assess TRALI occurrence and potential risk factors among inpatient Medicaid beneficiaries under 65 years of age, during 2007-2010. **METHODS:** This retrospective claims-based study utilized large Medicaid databases. Transfusions were identified by recorded procedure and revenue center codes, while TRALI was ascertained via ICD-9-CM diagnosis code. Revenue center units were used to quantify blood use. Study evaluated TRALI rates (per 100,000 transfusion stays) among Medicaid beneficiaries, overall and by year, age, sex, race, number of units and blood components transfused. **RESULTS:** Of 1,123,113 inpatient transfusion stays for Medicaid beneficiaries during 2007-2010, 162 had TRALI diagnosis recorded, an overall rate of 14.42 per 100,000 stays. Annual TRALI rates were 12.70, 10.67, 16.60, and 18.14, respectively. TRALI rates for ages 0-9, 10-19, 20-29, 30-39, 40-49, 50-59, and 60-64 were 5.15, 13.41, 17.22, 19.59, 19.44, 13.66, and 10.54. Rates for females and males were 12.78 and 17.28, whereas for whites and non-whites were 15.55 and 13.45. TRALI rates by number of units were: 9.56 for 1 unit, 7.72 for 2-4 units, 17.70 for 5-9 units, and 62.12 for >9 units. Rates by blood component groups were: 13.86 for RBCs only, 4.93 for plasma only, 23.22 for platelets only, 37.37 for platelets and plasma, 56.02 for RBCs and plasma, 43.12 for RBCs and platelets, and 74.75 for RBCs, plasma, and platelets. **CONCLUSIONS:** This is the first and largest-to-date claims-based TRALI study among Medicaid beneficiaries. The results show a possible trend of increasing TRALI occurrence over time. The findings also suggest that TRALI rates vary by age, sex, race, number of units, and blood components transfused, with highest rates for stays with >9 units transfused and for stays with RBCs transfused in combination with plasma and platelets.

PRS2

LONG-ACTING BRONCHODILATORS AND RISK OF ADVERSE CARDIOVASCULAR EVENTS IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE: A FOCUSED CRITICAL REVIEW

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OBJECTIVES: Chronic obstructive pulmonary disease (COPD) is one of the leading causes of morbidity and mortality worldwide. Long-acting bronchodilators (LABs) are the mainstay of pharmacological maintenance therapy for COPD. However, the possibility that use of LABs may lead to risk of cardiovascular events remains debated. The objective is to provide a critical review of methodologies employed to evaluate risk of cardiovascular events in patients with COPD using LABs. **METHODS:** A targeted search was conducted in PubMed to identify all original published research reporting adverse cardiovascular events from clinical trials and observational studies. The search was limited to English language, but not restricted by publication date. Selected abstracts were reviewed for study population, treatment, follow-up duration, study design, and cardiovascular events. **RESULTS:** The search returned 131 citations, of which 19 reported results from original research. Among them, 10 studies (53%) were clinical trials and 9 (47%) were observational studies. For the clinical trials, sample sizes ranged from 204 to 6,184 patients; follow-up duration was 14 days to 4 years. For the observational studies, 6 (67%) were nested case-control studies, 2 (22%) cohort studies, 1 (11%) self-controlled case series study; sample sizes ranged from 1,043 to 352,631 patients; follow-up duration was 52 weeks to 13 years. The most frequently reported cardiovascular events included arrhythmias, stroke, angina, myocardial infarction and cardiovascular death. While none of the clinical trials showed a statistically significant association between the use of LABs and increased risk of cardiovascular events, 5 observational studies did. **CONCLUSIONS:** The controversy continues regarding the use of LABs and their cardiovascular safety. Short follow-up duration and exclusion of patients with previous history of cardiovascular events are the main limitations to clinical trials, while observational studies may be limited by residual confounding by disease severity and immeasurable time bias. A well-designed observational study is warranted.

PRS3

MORTALITY AND READMISSION IN MECHANICALLY VENTILATED PATIENTS WITH PNEUMONIA

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