within 30 days compared to 20% in the comparison arm (RR 0.92, 95% CI 0.80, 1.05). **Conclusions:** The intervention was not effective in increasing the proportion of discharges followed by timely office visits to primary care providers or reducing the proportion with rehospitalization.

Keywords: Hospital Discharges; Re-Hospitalization; Office Visits

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B2-3:

Predicting the Risk of End-Stage Renal Disease in Patients with Stage 3 Chronic Kidney Disease: A Pragmatic Risk Score

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Background/Aims: Chronic kidney disease (CKD) is common, but only progresses to end-stage renal disease (ESRD) in a minority of patients. Developing a tool for early identification of patients likely to progress to ESRD would enable clinicians and medical systems to target resources to patients likely to benefit from interventions. **Methods:** We conducted a cohort study by linking data among 38,483 patients with stage 3 CKD. We measured patient characteristics during the year before patients became eligible because of their poor kidney function. The patient characteristics were known from previous studies to predict ESRD. We followed patients for up to one year. Seven routinely measured patient characteristics accurately predicted the risk of ESRD. By combining those characteristics with numeric weights for their importance, the risk score identified the subgroup (top decile or tenth) of patients at the highest risk. **Results:** We observed 461 patients who developed ESRD, a one-year risk of 1.6 per 100 patients. We judged the risk score's effectiveness by dividing the cohort into ten equal groups or deciles, which included approximately 3,849 patients. Patients at or above the 90th percentile of predicted risk (top decile) were 60 times more likely to suffer a deep infection when compared with patients below the 10th percentile (bottom decile): 11.0 per 100 patients (top decile) versus 0.2 per 100 (bottom decile). The c-statistic was 0.89. **Conclusions:** This pragmatic risk score appears to be the first of its kind for predicting ESRD in patients with stage 3 CKD. Previous risk scores in the KPNW population and other populations have predicted ESRD in both earlier and later stages of CKD and may not be sufficiently accurate for KPNW's intended application. Our risk score can predict a patient's absolute risk (e.g., 11 per 100 patients). The risk score can also reveal where a patient's absolute risk ranks as a percentile. The same seven characteristics are more useful to decision-makers when the hazard ratios (numeric weights) can be combined in a risk score to predict the absolute risk.

Keywords: Risk Scores; Chronic Kidney Disease; ESRD

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B2-4:

A Vertebral Fracture Assessment (VFA) Performance Algorithm Improves Appropriate Utilization Among Those Referred for Bone Density Tests (DXA)

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Background/Aims: Densitometric lateral spine imaging (vertebral fracture assessment, or VFA) identifies prevalent vertebral fracture and improves fracture risk estimation, but is under-utilized in clinical practice. We created an algorithm to be used by bone density (DXA) technologists to identify those with moderate or higher pre-test probability of prevalent vertebral fracture who should have VFA at the time of a DXA test. Our objectives were to: a) assess changes of VFA utilization after implementation of the algorithm at a large rural multispecialty community health care organization and an academic health center; and b) assess the association of VFA results with prescription of fracture prevention medication. **Methods:** We devised a physician DXA order option that VFA also be performed for those patients whose worst T-score (spine, femoral neck, or total hip) is between -1.5 and -2.5 PLUS age 65 years or more OR height loss 1.5 inches or more OR current glucocorticoid use. The proportion for those with an indication for VFA who had one done before and after introduction of the performance algorithm was compared with chi2 statistic. Manual medical record review was done to assess results of VFA, and logistic regression was used to estimate the multivariable-adjusted association of VFA results (positive for vertebral fracture vs. negative) with subsequent physician prescribing of fracture prevention therapy. **Results:** After introduction of the DXA/VFA order option, 36% (331 of 969) and 87% (438 of 452) of those with a VFA indication at the two institutions had VFA performed (P-value <0.001 compared to before introduction). Those with a VFA positive for prevalent vertebral fracture had an odds ratio of 3.2 (95% C.I. 2.1 - 3.1) of starting fracture prevention medication compared to those with a VFA negative for vertebral fracture, adjusted for age, sex, prior clinical fracture, and current glucocorticoid use. **Conclusions:** DXA technologists can successfully use an algorithm to identify those for whom VFA is indicated, provided the appropriate conditional order for VFA is part of the DXA order. Documentation of prevalent vertebral fracture appropriately increases utilization of fracture prevention therapy in a substantial subset of those who do not otherwise have an indication for therapy.

Keywords: Vertebral Fracture Assessment; Fracture Risk

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B2-5:

Spectrum of Obesity and Extreme Obesity in a Diverse Population of Children and Adolescents

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Background/Aims: The aim of the study was to examine the prevalence of obesity and extreme obesity in school-aged children using three classifications based on body mass index (BMI): BMI percentile, percentage above the 95th percentile and Z score, and the association of BMI stratification with elevated blood pressure. **Methods:** This was a retrospective study of 117,618 children aged 6-17 years receiving well-child care in Kaiser Permanente Northern California between July 2007 and December 2010. Blood pressure, BMI and other data were extracted from electronic records. **Results:** The prevalence of BMI >95th percentile ranged from 14.5% (4,395 of 30,235) in whites and 14.3% (2,287 of 16,033) in Asians to 22.3% (1,809 of 8,124) in blacks and 25.8% (5,734 of 22,187) in Hispanics. For boys, the highest prevalence was in Hispanics (29.2%, 3,346 of 11,452), followed by blacks (21.0%, 879 of 4,193); for girls, the highest prevalence was in blacks (23.7%, 930 of 3,931) and then Hispanics (22.2%, 2,388 of 10,735). For extreme obesity, a threshold of BMI ≥120% of the 95th BMI percentile identified the largest proportion of children (5.6%, 6,532 of 117,618) compared to BMI ≥99th percentile (3.8%, 4,488 of 117,618) and BMI Z score ≥3.0 (0.1%, 83 of 117,618). Stratification of BMI by percentage above the 95th percentile demonstrated a graded relationship between obesity severity and risk of elevated blood pressure. **Conclusions:** The prevalence of obesity and extreme obesity in children varied by age, gender and race/ethnicity, with the highest prevalence among Hispanics followed by black children. Compared to BMI thresholds based on the 99th BMI percentile or BMI Z score of 3, classification by BMI ≥120% of the 95th BMI percentile identified a greater percentage of severely obese children in whom additional health risk-stratification was achieved by further categorizing based on percentage above the 95th BMI percentile. This classification approach may be useful for obesity management in clinical practice, public health surveillance, and research.

Keywords: Obesity; Children; Classification

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