hypertensive patients. METHODS: The study cohort is composed of 132 hypertension patients, a subset of all those 498 enrolled to date in the Baltimore Partnership Programs to Reduce Cardiovascular disparities study, and who have one year follow-up. The study follows a 2 × 2 factorial nested case-control design: patients and their physicians were randomly assigned to either intervention or control group, where only the intervention group received patient/physician education. Blood pressure (BP) was measured at one year follow-up. We used multiple regressions to assess the effect of the interventions on systolic blood pressure (SBP) change, from baseline to one year follow-up. The model is adjusted for sociodemographics, patient knowledge score in hypertension (per “High Blood Pressure Survey”, Matins D, 2001) and concomitant diabetes. RESULTS: Most patients are Black (86.2%), female (67.1%), and under 65 years of age (71.7%). Mean pre- and post BP are 145/87 mmHg and 136/80 mmHg, respectively. SBP reduction is significantly larger in patients under 65 (p = 0.04), and marginally significant in those who received intervention (p = 0.06) and in those whose physicians participated in the education sessions (p = 0.12). CONCLUSION: In this patient sample, interventions at both patient and physician level are effective at reducing blood pressure.

THE COST-EFFECTIVENESS LANDSCAPE OF GENETIC TESTING WITH WARFARIN THERAPY

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OBJECTIVES: Warfarin has highly variable dosing requirements that are influenced by the CYP2C9 and VKORC1 genes. A recent study suggested potential cost savings over $1 billion annually to the US health care system if warfarin dose was guided by genetic testing. The purpose of this study was to evaluate the potential cost-effectiveness of warfarin pharmacogenomic testing over a range of plausible scenarios. METHODS: A decision analytic model was developed to evaluate the clinical, patient, and economic outcomes of adding genetic testing to anticoagulation clinic standard of care for a hypothetical cohort of patients with atrial fibrillation. Epidemiological data for the risk of bleeds and the effect of genetic variants were obtained from a systematic evaluation of the literature. A lifetime horizon and payer perspective was utilized. In the testing arm, we assumed that the risk of bleeding in CYP2C9 and VKORC1 variant patients decreased by 50% and 25%, respectively, toward the risk of wild type patients. Utility and cost data were obtained from the literature, and the cost of the screening test was estimated based on currently available pharmacogenomic tests ($200). One-way sensitivity analyses were performed to explore the range of plausible results. RESULTS: The base-case incremental cost effectiveness ratio (ICER) was $91,301/quality adjusted life year (QALY). Varying the cost of genotyping between $100 and $550 resulted in ICERS varying between $4,581/QALY and $403,822/QALY. Varying the effectiveness for genotyping CYP2C9 between 25% and 75% resulted in ICERS between $45,711 and $339,781/QALY. Varying the effectiveness for genotyping VKORC1 between 0%–50% resulted in an ICER between $89,664 and $97,482. CONCLUSION: Genotyping patients for CYP2C9 and VKORC1 are likely to increase costs, but have the potential to be cost-effective depending on the effectiveness of dose reductions and the cost of the test.

HOW INFLUENTIAL ARE CLINICAL GUIDELINES FOR THE EVALUATION OF ACUTE CARDIAC SYMPTOMS?

 METHODOLOGY FOR THE INVESTIGATION OF NATIONAL coronary disease identification (incident)

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OBJECTIVES: Because coronary artery disease is the leading cause of death in the developed world, widespread implementation of evidence-based guidelines for the diagnosis of such disease is an ongoing priority for medical professional societies. Using a very large database comprising 2% of the U.S. adult population, we analyzed national patterns of cardiac diagnostic testing. Our goal was to assess divergence from current clinical guidelines in actual practice and evaluate the effects on costs and outcomes. METHODS: Our sample of commercial and Medicare enrollees numbered 4,355,625 patients. Entry criteria included age over 44 years, continuous enrollment from 2001–2003 excepting death, and a cardiac test with a diagnosis of coronary artery disease, heart failure, or a related cardiac symptom in 2001. Exclusion criteria included any cardiac diagnostic procedure or intervention in the 6 months preceding the first cardiac test. We measured the sequence of diagnostic procedures, interventions, cardiac events and treatment costs for each patient. RESULTS: 42,223 patients met entry and exclusion criteria and comprised our study group. 50% (21,075/42,223) were male and 48% (20,208/42,223) were older than 64 years. The prevalence of diabetes and hypertension was 32% (13,352/42,223) and 69% (28,968/42,223). Most patients (80%) completed an initial diagnostic pathway within 8 months of the first test. Patients had an average of 3.2 cardiac diagnostic tests (95% confidence interval 3.2–3.2, range 1–35) within 8 months of their initial test. 39% (16,354/42,223) had 2 or fewer diagnostic tests within 5 days and no further tests or events by 8 months. Events evaluated included coronary artery bypass grafting (4% [1,793/42,223]), percutaneous coronary intervention (7% [3,138/42,223]), death (7% [2,964/42,223]), and hospital admission for major adverse cardiac events (11% [4,743/42,223]). CONCLUSION: Evaluation of diagnostic tests and their sequences provide objective evidence to assess the nature of divergence from expert guidelines and to calculate the costs of cardiac disease evaluation.

HOSPITAL POLICIES FOR TREATMENT OF ACUTE DECOMPENSESATED HEART FAILURE

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OBJECTIVES: To assess the formulary status of currently used drugs, therapeutic guidelines and perceptions about the appropriateness of treatment of ADHF in community hospitals. METHODS: A Web-based survey of pharmacy directors at community hospitals that were part of a national group purchasing organization. RESULTS: One-hundred seven hospitals participated in the survey (response rate 47.1%). Diuretics like furosemide and bumetanide were more commonly included (100% and 94.4%, respectively) in hospital formularies than torsemide (69.2%). Dopamine and dobutamine were more common (94.4% each) on the formulary than milrinone (68.2%). Nitroprusside and nitroglycerin were listed on the formulary of more than 90% of institutions, while nesiritide was listed on the formulary in only 48.6% of hospitals and placed