published reports, to informal, personal contacts. Accordingly, scans may employ varying degrees of high to low technologies, ranging from Internet searches to conversations with community leaders. **Results:** Through the analysis of environmental or contextual factors, researchers can gather information to guide the design of effective health programs that are geared toward and incorporate the needs of specific communities. Recently, health researchers have used ESs to assess and improve services in a variety of community projects, including mental health, nutrition, women's health and cancer screening. These studies verify that the ES can be a vital tool in providing overall strategic direction of project development, in promoting community activation, and in raising awareness of future studies. **Conclusion:** Because of its flexible framework, the ES is a creative tool for health decision making. It is important that health researchers are knowledgeable about what this instrument entails in order to determine its potential use in community health research.

Keywords: Environmental Scans, Community health programs, Community health assessment

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PS1-24:

The Positive Predictive Value of a Hyperkalemia Diagnosis in Automated Health Care Data

Marsha Raebel, PharmD¹; Colleen Ross, MS¹; Michael Smith, PharmD, JD¹; Gwyn Saylor, BA¹; Leslie Wright, MA¹; Craig Cheetham, PharmD, MS²; Christopher Blanchette, PhD³; Stanley Xu, PhD¹

¹Kaiser Permanente Colorado; ²Kaiser Permanente Southern California; ³Lovelace

Background and Aims: The positive predictive value (PPV) of a hyperkalemia diagnosis in administrative data has not been evaluated and relationships between coded hyperkalemia diagnoses, elevated potassium concentrations and clinical signs have not been assessed. The aims of this study were to determine the performance of a coded diagnosis in administrative data at identifying 1) clinically-evident hyperkalemia and 2) patients with potassium ≥ 6 mmol/liter. **Methods:** This retrospective observational study included 8,722 patients with diabetes newly-initiating ACEi, ARB, or spironolactone therapy. The outcome measure was the first hyperkalemia-associated event comprised of a hospitalization, emergency department visit or death that occurred within 24 hours of a coded hyperkalemia diagnosis and/or potassium ≥ 6 mmol/liter during the first year of therapy. The medical records of all patients identified from administrative data as having hyperkalemia-associated events were reviewed as were a random sample of records of patients identified as not having hyperkalemia. **Results:** Among the random sample ($n = 99$) of patients identified from administrative data as not having hyperkalemia, none had hyperkalemia upon record review. Among 64 patients identified from administrative data as having hyperkalemia, all had a hospitalization or emergency department visit associated with a coded hyperkalemia diagnosis ($n = 41$), potassium ≥ 6 ($n = 9$), or coded diagnosis and potassium ≥ 6 ($n = 14$). Of the 55 total patients with a coded hyperkalemia diagnosis, 42 (PPV 76%) had clinically-evident hyperkalemia; 32 (PPV 58%) had potassium ≥ 6 . Of the 9 patients identified with potassium ≥ 6 who had no coded hyperkalemia diagnosis, 7 (PPV 78%) had clinically-evident hyperkalemia. Although 5 of the 64 patients died at the time of the hyperkalemia outcome, none had a coded diagnosis of hyperkalemia-associated death and hyperkalemia was not mentioned on the death certificate of any patient. **Conclusions:** Nearly one-fourth of patients with a coded hyperkalemia diagnosis do not have clinical signs and nearly one-half do not have potassium concentration ≥ 6 mmol/liter. Because both false positives and negatives occur when using coded hyperkalemia diagnoses to identify hyperkalemia-associated outcomes from administrative and death certificate data, medical record validation of hyperkalemia outcomes is necessary.

Keywords: Hyperkalemia diagnosis, Elevated potassium, Coded diagnosis data

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PS1-25:

Unintended Consequences of Implementing Healthcare Information Technology (HIT): A Survey of Users

Ted Palen, PhD, MD; Colorado Permanente Medical Group

Background: Health information technologies (HIT) such as electronic medical records (EMR), computerized physician order entry (CPOE), and clinical decision support systems (CDSS) have enhanced the quality, safety, and effectiveness of medical care. There is also optimism that widespread adoption of HIT in the United States would result in significant cost savings to both providers and consumers of healthcare. However, despite the potential benefits from adopting such technologies, the adoption rates of such technologies remain low. Many observers attribute the low adoption rates to the high financial cost of the technologies, but also to unintended consequences (UC) of HIT implementation. **Methods:** Online survey of HIT implementers in the HMO Research Network and American Health Information Management Association members. **Results:** Nearly 90% of the 224 respondents were administrators or managers. The UC occurred within EMR (37.4%, $N = 83$), eMAR (1.4%, $N = 3$), other HIT system (7.2%, $N = 16$), or a combination of ≥ 2 systems (54.1%, $N = 120$). Over 60% of the systems were hospital based and 52.5% were initial implementations while 19.8% were upgrades. The majority of UC involved technical problems (46.4%) or workflow issues (39.2%). Each of the following UC occurred about 30% of the time; increased workload, poorly integrated systems, or process errors. Even after remediation efforts, the UC persisted 79.7% of the time. **Conclusions:** UC are common in HIT and difficult to resolve. Involve all stakeholders in HIT planning, implementation, and remediation processes.

Keywords: Healthcare Information Technology, Medical record systems, Medical technology

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PS1-26:

Use of an Electronic Health Record to Facilitate the Enrollment of Patients in Prospective Randomized Clinical Trials: Lessons Learned from STABILITY Trial

Yvette Murley Henry, PhD¹; Kristina Whitmire Evans, MPH¹; Valerie Harkins, RN¹; Yasmin Mahmud, BA¹; Peter Berger, MD¹

¹Geisinger Medical Center

Background and Aims: Large clinical trials involving common chronic conditions may benefit from recruitment using an electronic health record (EHR). We developed a novel recruitment approach using our EHR to systematically identify all patients who appear eligible for such trials. **Methods:** Patients satisfying broad inclusion and exclusion criteria, defined primarily by ICD and procedure codes, were identified from the EHR and invited by letter to call to learn more about the study. The letter also informed patients that those who did not respond would be contacted by telephone 2 weeks later. The EHR of patients expressing interest were reviewed (pre-screened), the study was described in detail, and those who still appeared to be eligible were invited to come in for a screening visit. Patients were interviewed and examined (screened) to assure that they satisfied all inclusion and exclusion criteria and remained interested. Eligible and interested subjects were enrolled. The disposition of each potential patient was tracked through each phase (response to letter and/or follow-up phone call, result of pre-screening, number enrolled). **Results:** In STABILITY, a placebo-controlled trial of darapladib (a drug that lowers LP-PLA2) in patients with severe vascular disease, 5,300 patients satisfied broad inclusion/exclusion criteria and 1,687 were sent letters inviting them to call and express their interest in possibly participating in the trial. Of the 1,687 who received letters, 587 (35%) expressed interest (either by calling or in response to our follow-up call) and were pre-screened. Of the patients who did not respond, 341 were unable to be reached. Study enrollment closed before we were able to contact 92 patients who expressed interest. Overall, 148 patients were screened, and we enrolled 101 patients, more than any of the 158 other participating institutions in the USA and more than were enrolled in 41 of 45 participating countries. **Conclusions:** These data support the ability of an