

biopsy often attended urology visits (38.6%, 4,992/ 12,935). PSA velocity was strongly associated with biopsy, for example, when PSA was below 4.0 ng/ml, a velocity =0.75ng/mL/year was associated with an 8.4 fold increase in biopsy. **Conclusions:** Biopsy practices following PSA testing have been stable over time in Group Health. As little is known about real-world biopsy patterns, these data should be helpful to other providers and patients who are uncertain about what is considered common practice in an HMO setting.

Keywords: PSA screening, Biopsy, Prostate cancer

doi:10.3121/cmr.2011.1020.ps2-43

C-B2-04:

Use of Health Plan Tumor Registry and EMR Data to Identify Cancer Recurrence and Progression

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Background: Reliable ascertainment of cancer recurrence is essential in order to evaluate therapeutic interventions to treat advanced disease. Specification of the timing of cancer recurrence using administrative claims from SEER-Medicare is challenging and has been limited to the use of algorithms based mainly on ICD9 diagnosis codes. **Aims:** We sought to identify scenarios or patterns of care that suggest cancer recurrence or progression using the detailed electronic medical record data contained in the HMO Cancer Research Network's (CRN) Virtual Data Warehouse (VDW). **Methods:** Using data from the Virtual Tumor Registry (VTR) from two HMO CRN health plans where the tumor registry staff conduct annual chart abstraction to ascertain recurrence, we identified incident cases of stage 1-3a breast, colorectal, lung, and prostate cancer for the years 2000-2003. The VTR data was linked to VDW pharmacy, procedure, and diagnosis data from the subject's incident cancer diagnosis date through the end of 2008. Descriptive analyses were performed. Scatter plots of events, including receipt of chemotherapy services, were created to determine "black out" periods associated with first course treatment and to identify other patterns of care consistent with recurrence or progression. **Results:** The proportion of incident cases with a noted recurrence during the observation period varied from 6.3% of prostate cancers to 19.1% of lung cancers. Fewer than 60% of cases (varied by cancer site) with a tumor registry-documented recurrence would have been identified as having a recurrence using an algorithm relying only ICD codes indicative of metastatic disease. Subjects with a noted recurrence had much higher use of advanced medical imaging (including CT, MRI and PET), laboratory procedures, and more pharmacy dispensings for narcotic analgesics. Scatter plots of chemotherapy services by month suggest that the interval of initial therapy among patients without recurrence varies by cancer type, so that algorithms for detecting recurrence based on these services need to be disease-specific. **Conclusions:** EMR data such as that available from the CRN VDW may be an optimal data source to be used to identify cancer recurrence. Next steps include the development of novel analytic strategies to estimate each patient's probability of cancer recurrence.

Keywords: Cancer, Recurrence, VDW

doi:10.3121/cmr.2011.1020.c-b2-04

C-A4-04:

The Delivery of Cancer and Other Preventive Health Services during Periodic Health Examinations

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Background/Aims: Limited time and competing demands force primary care physicians and patients to prioritize among evidence-based preventive

health services during periodic health examinations (PHE). We examined the rate of discussion of and recommendation for 19 USPSTF-endorsed preventive services during PHEs. **Methods:** Claims data, a pre-visit survey, and transcripts of audio-recorded office visits were used to identify which services patients were eligible and due for at the time of visit. Study physicians (N=60) are internal or family medicine physicians. Study patients (N=484) are insured, ages 50-80, and due for colorectal cancer screening at time of PHE. Audio-recordings of PHEs were evaluated for the frequency of preventive service discussions and physician recommendations - overall and by gender. **Results:** Patient participants are on average aged 59 years, 65% female and 66% white. Among patients eligible and due for service, smoking (100%, 54/54), breast cancer (94%, 67/71), and colorectal cancer screening (94%, 432/462) were most likely to be discussed, while aspirin use was the least likely to be discussed (28%, 31/109). Physicians were most likely to recommend colorectal cancer screening (93%, 429/462), blood pressure screening (90%, 92/102), and breast cancer screening (90%, 64/71) and least likely to counsel for aspirin use (18%, 20/109) and alcohol misuse (4%, 1/24). In our sample, males were more likely to receive recommendations for colorectal cancer (96%, 156/162 vs. 91%, 273/300), cholesterol (100%, 6/6 vs. 67%, 10/15), and hearing screening (36%, 18/50 vs. 25%, 13/52); pneumococcal vaccination (44%, 4/9 vs. 13%, 2/15); aspirin use (23%, 18/80 vs. 7%, 2/29); and alcohol misuse counseling (8%, 1/12 vs. 0%, 0/11) compared to females. Females in our sample were more likely to receive diet (38%, 65/170 vs. 23%, 29/125), weight (62%, 95/154 vs. 54%, 37/68), and tobacco cessation counseling (81%, 30/37 vs. 76%, 13/17). **Conclusions:** Although screening services are likely to be recommended to patients due for service, missed opportunities exist to counsel eligible patients for services aspirin use and alcohol misuse. These missed opportunities may vary by gender. We are currently exploring the patient, physician, visit and service characteristics associated with missed opportunities to deliver recommended preventive services during PHEs.

Keywords: Prevention, Screening, Primary care

doi:10.3121/cmr.2011.1020.c-a4-04

PS2-25:

Prostate Cancer Screening: Benefits, Barriers and Conflicting Information

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Background: Prostate cancer screening is controversial; treatment of early stage cancer has uncertain benefits, and complications are likely. Physician-patient discussions about PSA testing may be brief or absent. We investigated men's familiarity and experiences with PSA testing, and perceived benefits and barriers. **Methods:** In the context of the multi-site CRN study "Health Literacy and Cancer Prevention" men aged 40-70 were interviewed about knowledge, attitudes and experiences related to PSA testing. Results: Of 437 men queried, 69% had heard of a PSA test, and 51% knew what type of cancer it tested for. 246 men had/intended PSA screening (PSA-accepters). The most common reasons cited for screening were physician recommendation (62%), age appropriateness (49%), and prostate-related symptoms (12%). 21 men had not been/did not intend to be tested (PSA-decliners); reasons included no physician recommendation (33%), age (19%), and no prostate issues (10%). Most men (83%) would find a normal result reassuring, and most (80%) believed a PSA test would reduce their chances of dying from prostate cancer; accepters held stronger beliefs about these benefits than decliners (p<.10). Overall, 24% would be nervous about what a PSA test might find and 13% agreed having a PSA test is unpleasant. The latter belief (but not the former) was stronger in PSA-decliners than accepters (p<.05). There were no statistically significant differences between PSA-accepters and decliners on health literacy test scores, however those who did not know