

antagonists block this effect (Cancer Res 62:4491–4498, 2002; Microvasc Res 72:3–11, 2006). Recently it was shown morphine activates breast cancer cell migration in vitro. (AACR 2007 abstract 1364). Despite their widespread chronic use in pain therapy and addiction medicine, clinical data evaluating the role of opiates and their antagonists on tumor growth or proliferation are sparse. The model of addiction treatment in Perth (Australia) provides an opportunity to assess the effects of these drugs. In Perth, standard treatment for heroin dependence is via the opiate agonist methadone maintenance (MM). However some patients have received an opiate antagonist via naltrexone implants (NI) under Australian special access guidelines.

Methods: Data were assembled using the Western Australian Data Linkage System (WADLS): cancer related admissions were identified via ICD diagnostic codes. All persons entering MM (n=658) or NI (n=376) for the first time in 2001–2002 were eligible. Following approval from the University of Western Australia, plus clearance to access WADLS, hospital admissions were identified for 573 MM and 361 NI cases (20 people receiving both MM and NI were then excluded). The MM group were significantly older than the NI group (31.3 years versus 28.1 years). The sex ratios were similar: NI 204 (60%) males, MM 329 (59% males), 199 (36% female), and 25 (5%) missing data.

Results: In 2439 person-years of follow-up there were 6 (1.1%) new cancer cases in the MM group [malignant neoplasm of bladder and skin, malignant leiomyoma of uterus, benign neoplasm of cervix and skin, essential (haemorrhagic) thrombocythaemia], and in 1539 p-y of follow-up, 4 (1.2%) in the NI group (melanocytic naevi (x3: 1 case also with benign lipomatous neoplasm), 1 malignant neoplasm of brain. There was 1 death (probable oesophageal cancer) with no prior cancer related hospital admissions from the MM group. There were no admissions for breast or colon cancer in either group.

Conclusion: The prevalence of new tumors was similar in the two groups. This study demonstrates the feasibility of utilizing this population and technique to identify the effects of chronic opiates and antagonists on development of malignancies. Continuing follow-up of the cohorts is planned.

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POSTER

Prophylactic oophorectomy for the prevention of breast and ovarian cancer in high risk mutation carriers: meta-analysis

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Background: Compared to the general population, BRCA1 and BRCA2 mutation carriers have significantly increased lifetime risks of breast and ovarian cancer. Prophylactic oophorectomy may serve a dual preventative function, by decreasing serum oestrogen and hence breast cancer incidence, while eliminating at-risk ovarian epithelium. **Materials and Methods:** The existing published literature (MEDLINE, EMBASE, CENTRAL) was systematically reviewed to assess the efficacy of prophylactic oophorectomy in reducing breast and ovarian cancer incidence, as well as mortality in BRCA1/2 mutation carriers. Individual data for 4154 carriers in five prospective cohort studies, one population based case-control study and one retrospective cohort study was analyzed. Analysis of additional data from unpublished sources has also been completed. Meta-analysis was performed using fixed and random effects models to derive pooled relative risks (RR) for outcomes of risk reduction in overall mortality, breast and ovarian cancer incidence.

Results: In BRCA1/2 mutation carriers, prophylactic oophorectomy significantly decreased the risk of ovarian cancer incidence (RR 0.24; 95% CI 0.14–0.41). A reduction in breast cancer incidence was also observed (RR 0.48; 95% CI 0.30–0.75). The relative risk of overall mortality was 0.64 (95% CI 0.35–1.20). Few studies measured cancer-specific mortality outcome. There was low evidence of heterogeneity between studies. Sensitivity analysis excluding small studies did not reveal a significant difference in pooled measures of effect. Influence analysis for each outcome examined did not disclose outlier studies.

The included studies had verified outcomes and strict follow-up, thus were less subject to bias. However, confounding by indication may occur in cohort studies. Concern about cardiovascular mortality post-oophorectomy was not supported by a large multi-centre study, and the complication rate was low. Ongoing follow-up after oophorectomy is advised due to a small risk of primary peritoneal cancer and for breast surveillance.

Conclusion: Given the strong and consistent evidence for risk reduction in breast and ovarian cancer with prophylactic oophorectomy, and the lack of reliable surveillance for ovarian cancer, this method of prevention should be considered in BRCA1/2 mutation carriers. Recommendations for further

research include studies comparing prophylactic oophorectomy to other prevention methods in BRCA1/2 mutation carriers.

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POSTER

Cancer screening in Greek diabetics. A comparative survey study

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Background: Diabetic patients seem to share the same if not higher possibility for developing various malignancies as compared to the general population. Nevertheless, data from the literature suggest that diabetics are frequently under screened. Unfortunately, these data are only referred to females and related to gynaecological tests (mammography and Pap smears), but nothing is known about screening implementation for other cancers for both genders. Our objective was to investigate the rate of screening practices among a sample of Hellenic diabetic patients as compared to non diabetic population.

Methods: 6447 Greek individuals (675 diabetics vs. 5772 non-diabetic) entered the study in the framework of PACMeR 02 cancer screening study. The screening rate for the cost-effective tests [Mammography (MRX), Pap test (PAP), Fecal Occult Blood Test (FOBT), sigmoidoscopy (SIG)] and not evidence-based exams [Clinical breast examination (CBE), breast ultrasound (USB) self breast examination (SBE) medical consultation included, PSA, digital rectal examination (DRE), transrectal ultrasound (TRUS)] was performed. Analysis was performed separately by gender.

Results: Diabetic women reported at higher rates that they never performed the sex-specific CBE, PAP, SBE (medical consultation included), SKIN tests (p < 0.001), MRX (p = 0.0012), and USB (p = 0.0385). Moreover non diabetics reported performing screening SBE, CBE, PAP and MRX a more frequently compared to diabetic women (p < 0.05). Prostate cancer screening rates were higher among diabetics individuals, but statistical differences were reached only for TRUS and DRE. Colorectal cancer screening was very low in both settings (screening rate <2%).

Conclusion: This study can serve as a reminder to primary care providers that diabetic patients and especially women seem to be underscreened and a more focused approach should be taken to include this sensitive target group in the screening activities.

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POSTER

Primary care physicians and evidence-based cancer screening practices in Greece

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Background: Routine integration of primary prevention into practice has been sub-optimal, resulting in lost opportunities to potentially decrease morbidity and mortality. Since major health care authorities recommend the evidence-based and cost effective screening practices we investigated the concordance of primary care providers' responses to current guidelines.

Methods: 366 primary-care physicians entered the study and answered a screening practice questionnaire. We explored the concordance of physicians' responses to recommended guidelines by analyzing questionnaires results for the optimal (guideline-based) prescription frequency of cost-effective tests: stool occult blood test (SOBT) good-practice = yearly or twice yearly, sigmoidoscopy good-practice = every 3–5 years, Pap test accepted-practice = yearly or twice yearly or every 2–3 years, mammography good-practice = every 1–2 years and clinical breast examination (CBE) good-practice = yearly or twice yearly, during targeted cancer activities.

Results: The prescription rates for cost effective tests were as follow: SOBT good-practice 36.61%, under-practice 9.56%; sigmoidoscopy good-practice 17.76%, over-practice 11.2%; Pap test accepted-practice 88.9%, under-practice 0.27%; mammography good-practice 74.32%, under-practice 10.1% and CBE good-practice 71.47%, under-practice 7.20%. SOBT, sigmoidoscopy, Pap test, mammography and CBE were considered not important at 53.83%, 71.04%, 10.93%, 15.57% and 21.33%, respectively.

Conclusions: Physicians seem well informed about mammography, CBE and Pap test application. Colorectal cancer seems to be not a favorable