Results: For all cancer types (All) combined, the risk of cause-specific death was significantly decreased for group 4 ($p < 0.01$), with no difference between the other groups, see table. Breast cancer (BC) patients diagnosed during lactation displayed a significantly increased risk of dying from their cancer, $p = 0.003$, while women with malignant melanoma (MM) did not have a similar pattern. With the limitations of variable observation times, the risk of cause-specific death decreased during the three diagnostic periods (1967–1984, 1985–1994 and 1995–2004).

Patients			Cause-specific death	
	Groups	Number	Deaths	HR (95% CI)
All	1	42 337	13 780	1 (ref)
	2	547	139	0.9 (0.8−1.1)
	3	571	146	1.0 (0.8−1.2)
	4	2 056	143	0.5 (0.4−0.6)
MM	1	4 091	587	1 (ref)
	2	168	26	1.3 (0.9−2.0)
	3	132	15	1.0 (0.6−1.7)
	4	685	36	0.7 (0.5−1.1)
BC	1	14 005	4 224	1 (ref)
	2	65	28	1.2 (0.8−1.8)
	3	51	32	1.8 (1.3−2.7)
	4	130	30	0.7 (0.5−1.1)

Conclusion: The diagnosis of most cancer types during pregnancy or lactation does not increase the risk of cause-specific death, except for breast cancer diagnosed during lactation. Cancer survivors who consider post-cancer pregnancies can be informed of the generally good outcome.

1201 POSTER

Wine, liquor, beer, and risk of breast cancer

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Background: Drinking of alcoholic beverages has consistently been linked in population studies to increased risk of female breast cancer (BrCa), but data are relatively sparse about an independent role of choice of beverage type.
Materials and Methods: We did a cohort study of 70,033 women (59% white, 26% African-American, 10% Asian-American) who supplied information about demographics and habits at health examinations in 1978−85. Through 2004 BrCa was subsequently diagnosed in 2,829 women; the role of specific beverage types was studied among women taking more than one drink per month per month (n = 37,879 with 1,509 BrCa). We used Cox proportional hazards models adjusted for age, ethnicity, body mass index, education, and smoking, both with and without control for total alcohol. In one type of analysis women whose habits indicated a preponderant beverage choice were compared to women with no clear preference with these numbers: 10,570 wine (W), 3,783 liquor (L), 2,702 beer (B), and 20,824 no preference (N). In another type of analysis we examined the independent association of frequency (per day per week) of drinking each beverage type (W, L, B, and type of wine). Finally, we looked at the role of total alcohol (<1 drink/day referent) within beverage preference strata.
Results: Controlled for total alcohol, the RR's for comparison of preference groups to non-preferrers (N) were: W = 1.06 (0.94−1.20), L = 1.02 (0.87−1.21), and B = 1.02 (0.81−1.29). Also controlled for total alcohol, the RR's for frequency (per day per week) of the major types were: W = 1.02 (0.99−1.04), L = 1.01 (0.98−1.04), B = 1.01 (0.97−1.06). With wine type subsetted into red, white, etc., no disparities in BrCa risk were seen; e.g., for both red W and white W, RR per day per week = 1.01. For total alcohol (vs <1 drink per day) the RR of BrCa was 1.1 for women reporting 1−2 drinks/day and 1.3 for women reporting 3+ drinks/day (p for trend <0.001), with similar trends for total alcohol within the W, L, B, and N strata. All results were similar in subgroups stratified by age or ethnicity.
Conclusion: These data show the relation of alcohol intake to increased BrCa risk is independent of beverage choice, indicating that ethyl alcohol is the likely culprit.

1202 POSTER

Prognosis of uterine corpus cancer after tamoxifen treatment for breast cancer

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Background: Tamoxifen increases the risk of uterine corpus cancer. Since only few, mostly small, studies have examined prognosis of uterine corpus cancer following tamoxifen, we conducted a large retrospective cohort study.
Materials and Methods: We examined histopathologic and immunohistochemical characteristics of 313 patients with uterine corpus cancer following breast cancer, according to tamoxifen use. Uterine corpus cancer-specific survival in relation to tamoxifen use was examined in the same patients combined with 273 patients from a previous study with updated follow-up. Histologic review of all cancers was performed.
Results: Long-term tamoxifen users showed a higher proportion of non-endometrioid tumors than non-users (32.7% vs. 17.4%, $p = 0.004$), especially serous adenocarcinomas and carcinosarcomas. An increased proportion of FIGO stage III and IV tumors was also observed (20.0% vs. 11.3%, $p = 0.049$). Within FIGO stage I, both short-term and long-term tamoxifen users showed a higher proportion of tumors limited to the endometrium than non-users (36% vs. 23%, $p = 0.049$ and 0.004 respectively). Uterine corpus cancers in long-term tamoxifen users were more often estrogen receptor alpha-negative (37.9% vs. 19.4%, $p = 0.002$), progesterone receptor A-negative (45.3% vs. 32.6%, $p = 0.056$), progesterone receptor B-negative (47.1% vs. 13.6%, $p = 0.030$) and P53-positive (26.7% vs. 13.6%, $p = 0.015$) than uterine corpus cancers in non-users. In the pooled dataset (n = 545), 3-year uterine corpus cancer-specific survival was worse for long-term tamoxifen users than for non-users (82% for $\geqslant$2 years tamoxifen vs. 93% for non-users, $p = 0.0001$). The survival difference remained after adjustment for histologic and immunohistochemical characteristics in a Cox model (HR for $\geqslant$2 years tamoxifen = 2.4; 95% CI = 1.2−4.6).
Conclusions: Tamoxifen-associated tumors have less favorable histologic features and a worse survival, even though part of the tumors are diagnosed at a relatively early stage. Further investigation is needed to identify other tumor characteristics responsible for the relatively poor survival. Our results can be applied when weighing risks and benefits of tamoxifen versus other hormonal agents used in the prevention and treatment of breast cancer.

1203 POSTER

Trends in cancer incidence in 13 to 24 year olds in England, 1979–2003

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Background: Cancer in teenagers and young adults is a major health problem and is the most common natural cause of death in those aged 15 to 24 years in England. The distribution of cancer types in 13 to 24 year olds is different from both children and older adults, so trends over time might be expected to follow different patterns as well.
Materials and Methods: Incidence data on all cases of registered neoplasms in England from 1979 to 2003 inclusive were supplied by the Office for National Statistics. Cancer cases were grouped according to a morphology-based diagnostic scheme developed specifically for this age group. All malignant tumours except non-melanoma skin cancer were included as were non-malignant intracranial and intraspinal neoplasms. Incidence rates were calculated for five successive five year time periods and standardised to the European standard population. The significance of variability over time assessed using Poisson regression.