The authors conclude that these data could form the basis for a randomized, controlled trial of antifungal prophylaxis on oral mucositis.

Alexandra King

Original article Nicolatou-Galitis O *et al.* (2006) Effect of fluconazole antifungal prophylaxis on oral mucositis in head and neck cancer patients receiving radiotherapy. *Support Care Cancer* 14: 44–51

Prophylactic surgery reduces risk of gynecologic cancers in women with Lynch syndrome

Women with LYNCH SYNDROME have a high life-time risk of developing endometrial or ovarian cancers (40–60% and 10–12%, respectively). A retrospective cohort study by Schmeler *et al.*, published in the *New England Journal of Medicine*, reports on the efficacy of prophylactic surgery in preventing gynecologic malignancies in these patients.

The authors reviewed the medical records of 315 women with *MLH1*, *MSH2*, or *MSH6* germline mutations from three hereditary-cancer registries for whom follow-up information was available. Patients who had undergone prophylactic hysterectomy, with or without bilateral salpingo-oophorectomy, were matched with one or more controls who had not undergone surgery. Endometrial cancer was diagnosed in 33% of patients in the control group, whereas none of the 61 women who had undergone prophylactic hysterectomy developed this malignancy ($P < 0.001$). There were no cases of ovarian carcinoma among the 47 women who underwent bilateral salpingo-oophorectomy, but 12 cases (5%) were diagnosed in the control group. Whilst these data show a trend toward reduced risk of ovarian cancer with bilateral salpingo-oophorectomy, the results were not significant. Median age at diagnosis was 46 years for endometrial cancer and 42 years for ovarian cancer, with the majority of diagnoses made in women aged over 35 years.

The authors conclude that prophylactic surgery is effective in reducing risk of gynecologic cancers in women with Lynch syndrome, but that studies with longer follow-up are required to assess long-term survival.

Alexandra King

Original article Schmeler KM *et al.* (2006) Prophylactic surgery to reduce the risk of gynecologic cancers in the Lynch syndrome. *New Engl J Med* 354: 261–269

Point-of-care urine protein assay to monitor bladder cancer recurrence

Bladder cancer recurs in 50–90% of patients; sensitive techniques are therefore required to monitor patients with a history of this disease. Cystoscopy and cytologic analysis of cells excreted in the urine are the standard diagnostic tools used to monitor relapse; however, these techniques can lack sensitivity. Grossman *et al.* tested whether a qualitative point-of-care assay that measures the nuclear matrix protein NMP22 in excreted urine could improve the diagnosis of cancer relapse.

Patients ($n = 668$) with a history of bladder cancer from nine states in the US were prospectively enrolled in this study. Samples of voided urine were taken for routine cytologic examination and for testing with the NMP22 BladderChek® test (Matritech Inc., Newton, MA) before the patients underwent cystoscopy.

Bladder cancer was identified in 103 patients; 91.3% of the cancers were identified by cystoscopy and 99.0% were identified by a combination of cystoscopy and the NMP22 assay. The NMP22 assay detected 8/9 cancers that were missed by cystoscopy while cytologic analysis of urine only detected 3 of these cancers. The NMP22 test alone was 49.5% sensitive and 87.3% specific, and was significantly more sensitive than cytologic analysis alone ($P < 0.001$). Cytologic examination of excreted urine did not increase the sensitivity of cystoscopy.

The authors conclude that the NMP22 point-of-care assay can improve detection of bladder cancer recurrence. This noninvasive test can be performed in the physician's office and does not require specialist training or analysis of results in a laboratory.

Kate Matthews

Original article Grossman HB *et al.* (2006) Surveillance for recurrent bladder cancer using a point-of-care proteomic assay. *JAMA* 295: 299–305

Hepatitis B virus DNA levels predict risk of developing hepatocellular carcinoma

Chronic hepatitis B virus (HBV) infection is a risk factor for developing hepatocellular carcinoma. The concentration of HBV DNA in the serum of

GLOSSARY

LYNCH SYNDROME

Autosomal dominant familial cancer syndrome caused by germline mutations in four DNA mismatch repair genes: *MSH2*, *MLH1*, *MSH6* and *PMS2*; also known as hereditary nonpolyposis colorectal cancer