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Cancer research news for clinicians

Colorectal Cancer:

More Cost-Effective To Use Cetuximab In Patients With Wild-Type KRAS Gene

From a health-care system perspective, it may be more efficient to use the drug cetuximab only in colorectal cancer patients whose tumors have a wild-type KRAS gene, according to a study published online Aug. 7 in the Journal of the National Cancer Institute.

Earlier, patients whose tumors harbored wild-type KRAS were found to have a higher survival advantage when treated with cetuximab in a randomized trial by the National Cancer Institute of Canada Clinical Trials Group.

In this study, Nicole Mittmann, of the HOPE Research Centre Sunnybrook

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Breast Cancer:

Older Women More Likely To Receive Lower Chemotherapy Doses, Study Finds

Older women with breast cancer are more likely to get lower doses of chemotherapy than younger women, in an effort, presumably, by their doctors to reduce the ill effects of the toxic therapies, according to a study by a University of Rochester Medical Center scientist.

In a review of more than 1,200 women treated at community oncology practices throughout the country, more than 30 percent of women over 65 received reduced doses of chemotherapy, compared to 20 percent of younger women. The study was published online in the journal Cancer.

And, the study showed that many older women weren't given anthracycline- or taxane-based chemotherapy—the backbone drugs of breast cancer care—at least 22 percent compared with 8 percent of younger women. Aging patients received growth factors that help rebuild patients' immune systems at a significantly lower rate than the younger women, 18 percent compared with 28 percent.

"Typically older patients are more likely to have other health problems and doctors may be concerned about them and choose to reduce the chemotherapy dose to avoid raising their risk of adverse toxicity or neutropenia," said Michelle Shayne, breast oncologist and assistant professor at the Medical Center's James P. Wilmot Cancer Center. Reducing doses of chemotherapy is considered a factor in poor outcomes for some people.

The data showed comparable toxicity levels between the two groups of patients, likely as a result of the significant chemotherapy dose reductions for the older patients. The prospective observational study centered on 1,224 women diagnosed with Stage 1 to Stage 3 disease treated between 2002

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Cost-Effectiveness Better In Patients With KRAS Gene

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Health Sciences Centre, in Toronto, and colleagues used prospectively collected resource utilization and health utility data from that trial to conduct a cost-effectiveness analysis to determine the costs per life-year gained and costs per quality-adjusted life-year gained.

Mean survival times for the study arms were calculated over an 18- to 19-month period for all patients in the study and for patients whose tumors had wild-type KRAS.

For all patients, cetuximab showed very high (i.e., unfavorable) incremental cost-effectiveness ratios—meaning it was very costly in relation benefits—compared with best supportive care. The incremental cost-effectiveness ratios were, however, more favorable for patients whose tumors harbored wild-type KRAS.

"Consequently…it would not be efficient to fund cetuximab treatment for all patients with advanced colorectal cancer," the authors write. "Use of cetuximab may be restricted based on a patient's tumor KRAS status."

In an accompanying editorial, Robin Yabroff, of the Division of Cancer Control and Population Science, National Cancer Institute, and Deborah Schrag, of the Dana Farber Cancer Institute in Boston, note that these findings help raise important questions about how cost-effectiveness analyses inform coverage decisions.

Ideally, personalization of cancer therapy could save money by avoiding treatment for patients with KRAS mutations who do not respond to cetuximab, according to the editorialists. However, this study shows that even when restricted to metastatic colorectal cancer patients with wild-type KRAS tumors, the cost-per quality adjusted life year gained for cetuximab therapy compared to best supportive care exceeds commonly accepted thresholds of $50,000 to $100,000 per quality adjusted life year that signify "good value" health care interventions.

Given current attention to healthcare costs in the U.S., interest in explicitly comparing the costs and benefits of treatment, as performed by Mittmann et al. in Canada, is likely to increase. "The sustainability of the current approach to decision-making about coverage is unclear, particularly in light of escalating health care costs," the editorialists write.

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Breast Cancer:

Older Women More Likely To Get Lower Chemo Doses

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and 2005. Within that group, 207 women were 65 or older.

"We don't know for sure whether the doctors are actually making these decisions, or to some extent, the patients themselves. And it's not unreasonable for doctors to look out for their patients and avoid added toxicity," Shayne said. "But that approach might be undermining the outcome of the older patients."

Shayne wrote the study and worked with colleagues from Duke University led by Gary Lyman.

ASTRO Issues Statement On APBI For Breast Cancer

The American Society for Radiation Oncology has published a consensus statement outlining patient selection criteria and best practices for the use of accelerated partial breast irradiation (APBI) outside the context of a clinical trial in the July 15 issue of the International Journal of Radiation Oncology*Biology *Physics, the official journal of ASTRO.

For decades, whole-breast irradiation (WBI), where radiation is delivered to the whole breast every day for five to eight weeks, has been the standard treatment for patients with early breast cancer treated with breast conserving surgery. WBI has been shown to reduce the risk of recurrence in the affected breast and

increase the likelihood of long-term survival. However, recently there has been growing interest in using APBI, where radiation is used to treat only the part of the breast affected by cancer and the treatment time is decreased from several weeks to four or five days.

APBI has several benefits, including a decreased overall treatment time and a decrease in the radiation delivered to healthy tissue and adjacent organs, but its long-term safety and effectiveness compared to WBI are not yet known and results of randomized trials comparing APBI with WBI will not be available for many years. In the meantime, guidance for use of APBI outside of a clinical trial is needed.

The ASTRO consensus statement explains which patients may be considered for APBI, what constitutes proper informed consent for patients treated with APBI, which diagnostic imaging tests are needed for patients treated with APBI, how to integrate APBI with surgical and chemotherapy treatment and how the various techniques for APBI compare with one another.

"ASTRO's Accelerated Partial Breast Irradiation Consensus Statement Task Force developed these recommendations to serve as a framework for promoting more clinical investigations into the role of APBI in treating breast cancer," Maj. Benjamin Smith, lead author of the study and chief of the Radiation Oncology Department at Wilford Hall Medical Center on Lackland Air Force Base in Texas, said. "It is unlikely that APBI will replace WBI for most patients treated with breast-conserving surgery, but further study may establish APBI as an appropriate and desirable treatment for certain selected patient groups."

Denosumab Demonstrates Superiority Over Zometa For Bone Metastases

Amgen said that a pivotal, phase III, head-to-head trial evaluating denosumab versus Zometa (zoledronic acid) in the treatment of bone metastases in 2,049 patients with advanced breast cancer met its primary and secondary endpoints and demonstrated superior efficacy compared to Zometa.

Superiority was demonstrated for both delaying the time to the first on-study Skeletal Related Events (fracture, radiation to bone, surgery to bone, or spinal cord compression) (hazard ratio 0.82, 95 percent CI: 0.71, 0.95), and delaying the time to the first-and-subsequent SREs (hazard ratio 0.77, 95 percent CI: 0.66, 0.89). Both results were statistically significant.

Overall, the incidence of adverse events and serious adverse events was consistent with what has previously been reported for these two agents. Of note, osteonecrosis of the jaw (ONJ), which had not been observed in previously reported phase III studies with denosumab, was seen infrequently in both treatment groups. There was no statistically significant difference in the rate of ONJ between the two treatment arms. Infectious adverse events were balanced between the two treatment arms, as was overall survival and the time to cancer progression.

"We are extremely pleased with the outcome of this important study, which shows that denosumab can reduce or delay the serious complications of bone metastases in breast cancer patients better than the current standard of care, and with a favorable benefit/risk profile," said Roger Perlmutter, executive vice president of research and development at Amgen. "These results underscore the importance of the RANK Ligand pathway in bone disease, and offer the promise of improved care for patients with advanced breast cancer."

Bone metastases, the spread of tumors to the bone, are a serious concern for advanced breast cancer patients, with incidence rates as high as 75 percent. When cancer spreads to the bone, the growing cancer cells weaken and destroy the bone around the tumor. This damage can result in a number of serious bone complications, collectively called SREs.

The company said that full efficacy and safety data will be submitted for presentation at an upcoming medical meeting in the second half of this year.

Lymphedema Education Helps Reduce Symptoms, Study Finds

Patients who receive additional information about lymphedema report significantly fewer symptoms and practiced more risk-reducing behaviors, according to a recent study co-authored by Deborah Axelrod, associate professor in the department of surgery at NYU Langone Medical Center and a member of the NYU Cancer Institute.

Risk reducing behaviors include elevating the affected limb to promote fluid drainage, avoiding blood draws and injections to the affected limb and avoiding tight fitting clothing which can aggravate symptoms.

Lymphedema is a condition resulting in the abnormal and debilitating swelling of the extremities that can follow breast cancer surgery. Approximately 30% of the 2.4 million breast cancer survivors in the United States have developed lymphedema and all are at a lifetime risk.

Physical symptoms include swelling, firmness, pain fatigue, numbness and impaired limb mobility, but also predisposes patients to fibrosis, cellulitis, infections and septicemia. Psychologically, survivors often feel stigmatized because of the swollen limb which often brings about anxiety, depression and disruption of interpersonal relationships.

"I believe that anyone undergoing breast cancer surgery—whether it is a sentinel node biopsy alone or more extensive axillary surgery—should be informed about the risks of lymphedema," said Axelrod. "Until now, we had little evidence of the effectiveness of the behaviors to recognize and reduce symptoms."

Co-author Mei Fu, assistant professor in the College of Nursing at New York University said this is the first study to show that education can reduce risk of lymphedema. "Nurses can play a leadership role in educating patients about lymphedema and can play a role in improving the quality of life in cancer survivors," said Fu.

"It is important to identify the early warning signs and symptoms of the condition, as well as determine what interventions to take," said Axelrod. "We also enroll patients into ongoing behavior and risk modification trials and work with physical therapists to ensure symptom reduction."

Leukemia:

Exercise May Help Combat Leukemia Patients' Fatigue

A new study from the University of North Carolina at Chapel Hill suggests that exercise may be an effective way to combat the debilitating fatigue that leukemia patients experience.

In a first-of-its-kind clinical trial, a team of researchers from the Department of Exercise and Sport Science and UNC Lineberger Comprehensive Cancer Center have shown that physical activity can significantly improve symptoms of fatigue and depression, increase cardiovascular endurance and maintain quality of life for adult patients undergoing treatment for leukemia.

A total of 10 patients undergoing treatment participated in the EQUAL (Exercise and Quality of Life in Leukemia/ Lymphoma Patients) study. Each patient was provided with specially-treated exercise equipment to minimize the risk of infection. They participated in an individualized exercise session while in the hospital for the 3-5 weeks of the induction phase of leukemia treatment.

The exercise prescription comprised of aerobic and resistance exercises, core exercises, and light stretches tailored to the patient's level of fitness and leukemia symptoms. Upon their discharge from the hospital, each patient received an aerobic- based exercise prescription to use during their 2-week home recovery period.

Before and after the exercise program, the researchers tested key physiological measurements including resting heart rate, blood pressure and hemoglobin, body weight and height, body composition, cardiorespiratory fitness and muscular endurance. Psychological measures were tested using standard scales for assessing fatigue, depression and quality of life in cancer patients. Blood samples were also taken at baseline, mid, and at the conclusion of the study, and analyzed for cytokines, biomarkers of inflammation. The results of the study were recently published in the journal Integrative Cancer Therapies.

"We found that the patients experienced significant reduction in total fatigue and depression scores, as well as improved cardiorespiratory endurance and maintenance of muscular endurance," said Claudio Battaglini, assistant professor of exercise and sport science and UNC Lineberger member.

"This is important because of the numerous side-effects related to cancer treatment, and particularly leukemia treatment, which requires confinement to a hospital room for 4-6 weeks to avoid the risk of infection. We have demonstrated that these patients not only can complete an exercise program in the hospital but that they may receive both physiological and psychological benefits that could assist in their recovery," he added.

EQUAL phase II is in development. The study will consist of a randomized clinical-controlled trial to assess the effects on an individualized exercise prescription in acute leukemia patients vs. a group of leukemia patients receiving the usual treatment. If the results prove to be beneficial to patients, the goal of the research team will be to expand the trial by developing a multi-site research program in other U.S. centers.

Childhood ALL:

Cranial Radiation Eliminated With Personalized Chemo

Childhood acute lymphoblastic leukemia (ALL) can be successfully treated using a carefully personalized chemotherapy regimen without cranial radiation, investigators at St. Jude Children's Research Hospital have found. Such radiation of the brain was once a standard ALL treatment to prevent recurrence of the leukemia in the central nervous system (CNS).

Despite radiation's success in treating ALL, it produces side effects that include second cancers, stunted growth, hormone imbalances and cognitive deficits. Optimized use of anticancer drugs, especially those instilled directly into the spinal fluid, have enabled clinicians to reduce radiation use, and only patients at highest risk for relapse have received cranial radiation.

Now, St. Jude researchers have established that radiation can be safely eliminated in all patients with the use of highly effective chemotherapy regimens. The investigators reported their findings in the June 25 issue of the New England Journal of Medicine.

"Cranial radiation was an invaluable treatment when it was introduced by St. Jude oncologists in the mid-1960s," said Ching-Hon Pui, chair of the St. Jude Department of Oncology and an American Cancer Society Professor. "It controlled CNS leukemia and boosted the cure rate for ALL from only 4 percent to 50 percent. But radiation's side effects led to the steady reduction of dosages and limited use to the highest-risk patients." According to Pui, the paper's lead author, about 20 percent of the approximately 3,400 cases of childhood ALL diagnosed in the U.S. each year are still treated with radiation. In some developing countries, radiation continues to be used in the majority of children with ALL.

"Over the years, St. Jude investigators have identified many important risk factors for CNS relapse and optimized chemotherapy treatment, leading to improved control of CNS relapse," Pui said. "Our success led us to believe that we could safely eliminate the use of cranial irradiation in all patients, and this study clearly demonstrates that to be true."

The study involved 498 patients treated for ALL at St. Jude and Cook Children's Medical Center in Fort Worth, Texas, between 2000 and 2007. The risk of relapse was determined by measurement of residual leukemia cells (so-called minimal residual disease) that were present after remission induction treatment. The measurement of minimal residual disease was used to modify therapy based on the level of disease detected. This measurement is the most important prognostic indicator, according to Dario Campana, M.D., Ph.D., vice chair for laboratory research in the St. Jude Department of Oncology and a co-author of the paper. "The combined use of immunological and molecular methods allows us to study 100 percent of the patients for levels of minimal residual disease, an unprecedented rate of success," Campana said.

St. Jude investigators applied personalized therapy based on molecular genetics of ALL, pharmacogenetic traits of patients and pharmacodynamic principles. "We prospectively determined the activity of drug-metabolizing enzymes of each patient and adjusted the dosage of chemotherapy accordingly," said Mary Relling, chair of the St. Jude Department of Pharmaceutical Sciences and senior author of the paper. "Personalized therapy that we use avoids over- or under-treatment to maximize the cure rate while preventing excessive toxicity."

The researchers reported that this therapy produced a projected cure rate of 90 percent for all the patients, which is the best treatment result reported to date. This cure rate serves as a benchmark for others in the field. To assess whether cranial irradiation would have made a difference in CNS relapse, they compared the outcomes of 71 patients whose leukemias would have qualified them for irradiation with the outcomes of 56 patients who had received such irradiation in the past. The researchers found that the 71 patients, in fact, had significantly better complete remission than the 56 patients who had been irradiated.

"The bottom line is that not only did we get outstanding treatment responses in these patients, many of whom would have otherwise received irradiation, but they will have a better quality of life because of the absence of its side effects," Pui said.

"In a way, these findings represent coming full circle," said William Evans, St. Jude director and CEO and a co-author of the paper. "St. Jude was the first to introduce cranial radiation as a treatment strategy that advanced the cure of childhood ALL to 50 percent. Now, St. Jude is the first to show that we can successfully eliminate irradiation by optimizing chemotherapy."

Ovarian Cancer:
Young Early-Stage Patients Can Preserve Fertility

A new study finds that young women with early-stage ovarian cancer can preserve future fertility by keeping at least one ovary or the uterus without increasing the risk of dying from the disease.

The study is published in the Sept. 15 issue of CANCER, a peer-reviewed journal of the American Cancer Society.

Most cases of ovarian cancer are diagnosed at later stages and in older women. However, up to 17 percent of ovarian tumors occur in women 40 years of age or younger, many of whom have early stage disease. Surgery for ovarian cancer usually involves complete

removal of the uterus (hysterectomy) and ovaries, which not only results in the loss of fertility, but also subjects young women to the long-term consequences of estrogen deprivation.

Researchers led by Jason Wright, of Columbia University College of Physicians and Surgeons in New York City conducted a study to examine the safety of fertility-conserving surgery in premenopausal women with ovarian cancer. This type of surgery conserves at least one ovary or the uterus.

The investigators analyzed data from women 50 years of age or younger who were diagnosed with early stage (stage I) ovarian cancer between 1988 and 2004 and who were registered in the National Cancer Institute's Surveillance, Epidemiology and End Results database, a population-based cancer registry that includes approximately 26 percent of the U.S. population.

Patients who had both of their ovaries removed were compared with those who had only the cancerous ovary removed. A second analysis examined uterine conservation vs hysterectomy.

For their first analysis, the researchers identified 1,186 ovarian cancer patients. While most had both ovaries removed, about one in three (36 percent) had one ovary conserved. They found those in whom one ovary was saved had similar survival for up to at least five years.

To examine the effect of uterine preservation, the investigators studied a total of 2,911 women. While most of the women underwent hysterectomy, about one in four (23 percent) had uterine preservation. Uterine preservation also had no effect on survival.

Women who were younger, who were diagnosed in more recent years, and who resided in the eastern or western U.S. were more likely to undergo ovarian or uterine conservation.

These results are promising for the many young women who are diagnosed with ovarian cancer each year. "Given the potential reproductive and nonreproductive benefits of ovarian and uterine preservation, the benefits of conservative surgical management should be considered in young women with ovarian cancer," the authors concluded.

Bone Cancer:

Limb-Sparing Surgery May Not Offer Better Quality of Life

Limb-sparing surgery, which has been taking the place of amputation for bone and soft tissue sarcomas of the lower limb in recent years, may not provide much or even any additional benefit to patients according to a new review.

The analysis, published in the Sept. 15 issue of CANCER, a peer-reviewed journal of the American Cancer Society, indicates that patients and physicians should rethink the pros and cons of limb-sparing surgery and amputation.

Patients with tumors of the bone or soft tissue in their arms and legs require surgery to remove their cancer. To compare the costs and benefits of amputation compared with limb-sparing surgery in these patients, Canadian researchers Ronald Barr, of McMaster University, and Jay Wunder, of the Mount Sinai Hospital and the University of Toronto, reviewed all published papers on limb-sparing surgery that also measured patients' functional health and quality of life.

The review found that while limb-sparing surgery is generally as effective as amputation in ridding the patient of cancer, it tends to be associated with more early and late complications. Surprisingly, studies also show that, particularly for patients with lower limb bone sarcomas, limb salvage does not provide a better quality of life to patients than amputation.

Most studies have found that the differences in disability between amputation and limb-sparing patients are smaller than expected. Many revealed no significant differences in psychological health and quality of life between patients who underwent amputations and those who had limb-sparing surgery. However, there appear to be greater advantages to limb-sparing surgery over amputation for higher surgical sites in the lower limb, such as the hip.

Some studies have looked at the costs of amputation vs limb-sparing surgery. "Up front" surgical costs, the duration of rehabilitation, and the need for revisions are all greater for limb-sparing surgery. However, amputation carries longer term costs related to artificial limb manufacture, maintenance, and replacement.

The authors say additional research is needed to provide a thorough comparison of amputation and limb-sparing surgery in different types of patients with bone and soft tissue sarcomas.

HPV-Related Cancers:

AIDS Patients Face Higher Risk Of HPV-Related Cancers As Immunosuppression Grows

Risk of human papillomavirus (HPV)-associated cancers is greater for people living with AIDS and increases with increasing immunosuppression, according

to a new study published online July 31 in the Journal of the National Cancer Institute.

Although the risk of HPV-associated cancers is known to be higher among people with AIDS, the extent to which HIV-related immunosuppression plays a role is unclear.

Anil Chaturvedi, of the Infections and Immunoepidemiology Branch at the National Cancer Institute, and colleagues used data from a cancer registry for almost 500,000 persons diagnosed with AIDS between 1980 and 2004 to estimate risks for HPV-associated cancers. These include cancers of the anus, cervix, oropharynx, penis, vagina, and vulva. The researchers also evaluated the relationship between immunosuppression and incidence of these cancers by counting CD4 T-cells at AIDS onset. Incidence was compared across three periods (1980–1989, 1990–1995, and 1996–2004).

People with AIDS had a statistically significant higher risk for all HPV-associated cancers. From 1996 (when highly active antiretroviral therapy was introduced) through 2004, a low CD4 T-cell count was associated with an increased risk of invasive anal cancer among men. This risk was higher in 1996–2004 than in 1990–1995. Both increases in risk were statistically significant.

"Given that individuals currently infected with HIV may obtain little benefit from available HPV vaccines... our results underscore the need for effective screening for cervical cancer and anal cancer among persons with HIV infection or AIDS," the authors write.

In an editorial, Howard Strickler, of Albert Einstein College of Medicine, said the study provides novel evidence associating HPV-related invasive cancers with the level of immunosuppression in HIV-positive patients. He also cautioned that while highly suggestive the available data to date collectively still fall short of proving a biological relationship between HIV/AIDS and HPV-related cancers. "Nonetheless, it must additionally be acknowledged that these associations between human papillomavirus-related cancers and markers of immunosuppression were of moderate strength, varied between cancer types, and await confirmation."

Melanoma:
Budesonide Not Beneficial For Diarrhea In Melanoma

Patients with stage III or IV melanoma taking ipilimumab and the oral steroid budesonide to reduce side effects did not have less diarrhea, a known side effect of ipilimumab, according to results of a phase II trial published in Clinical Cancer Research, a journal of the American Association for Cancer Research.

These findings would "discourage the prophylactic use of budesonide to reduce the gastrointestinal side effects of ipilimumab," said researcher Jeffrey Weber, a senior member at the Moffitt Cancer Center and director of the Donald A. Adam Comprehensive Melanoma Research Center, Tampa, Fla.

Weber and colleagues gave 10 mg/kg of ipilimumab to 115 patients every three weeks, for four doses. This was combined with daily budesonide for one group and placebo control for another.

After four months of treatment, they found that budesonide did not affect the rate of diarrhea—it occurred in 32.7 percent of patients treated with the drug and 35 percent of those who received placebo, according to the study. Median overall survival was 17.7 months among those treated with budesonide compared with 19.3 months among those who received placebo.

Also, the researchers saw anti-tumor responses in 10 to 15 percent of patients, without an apparent difference between patients treated with budesonide and those who received placebo.

"This study attempted to decrease the side effects of ipilimumab by using a preventative enteric steroid regimen. This approach failed to accomplish that goal," said Jennifer Grandis, an editorial board member for Clinical Cancer Research and professor of otolaryngology and pharmacology at the University of Pittsburgh School of Medicine, and co-leader of the Head and Neck Cancer Program at the University of Pittsburgh Cancer Institute.

"The conclusion that the therapy is active in melanoma is justified, but not particularly novel. The study supports the contention that ipilimumab has use as a treatment in this disease, but more research is needed to elaborate on these findings and unveil ways to manage and potentially reduce side effects associated with this drug's use," she said.

Weber said he was not surprised by the favorable clinical results of this study and agreed that ipilimumab should be pursued in further clinical trials. "Ipilimumab appears to result in prolonged median and overall survivals in patients with stage IV melanoma," he said. "A significant proportion of patients receiving ipilimumab may have long-term survival."

Ipilimumab is currently in clinical trials for the treatment of melanoma. Budesonide is used for the treatment of inflammatory bowel disease, asthma, non-infectious rhinitis and growths in the nasal cavity.

NCI Cooperative Group Clinical Trials Approved

The National Cancer Institute Cancer Therapy Evaluation Program approved the following clinical research studies last month. For further information, contact the principal investigator listed.

Phase I

8238 A Phase I Study of Belinostat in Combination with Cisplatin and Etoposide in Adults with Small Cell Lung Carcinoma and Other Advanced Cancers. NCI Medicine Branch, Piekarz, Richard Lawrence (301) 402-3524.

PBTC-027 A Phase I Study of ABT-888, an Oral Inhibitor of Poly (ADP-ribose) Polymerase and Temozolomide in Children with Recurrent/Refractory CNS Tumors. Pediatric Brain Tumor Consortium, Su, Jack Meng-Fen (832) 822-4306.

Phase II

8217 A Phase 2 trial of Bevacizumab, Lenalidomide , Docetaxel, and Prednisone for Treatment of Metastatic Castrate-Resistant Prostate Cancer. NCI Medicine Branch, Dahut, William L. (301) 435-8183.

8327 A Phase 2 Study of TriapineÆ and Cisplatin in Combination with Pelvic Radiation for Treatment of Stage IB2-IVa Cervical Cancer or Stage II-IV Vaginal Cancer. Case Western Reserve University, Kunos, Charles Andrew (216) 844-2526.

8463 Phase II Study of Cediranib in Patients with Alveolar Soft Part Sarcoma. NCI Medicine Branch, Kummar, Shivaani (301) 435-5402.

E3508 A Phase II Randomized Trial of Paclitaxel, Carboplatin, Bevacizumab with or without IMC-A12 in Patients with Advanced Non-Squamous Non-Small Cell Lung Cancer. Eastern Cooperative Oncology Group, Argiris, Athanassios 412-648-6575.

GOG-0229H A Phase II Evaluation of AZD6244 in the Treatment of Recurrent or Persistent Endometrial Carcinoma. Gynecologic Oncology Group, Coleman, Robert L. (713) 745-3357.

N0823 A Randomized Crossover Phase II Study of Gemcitabine and Carboplatin with or without MK-0646 as First-Line Therapy in Advanced Squamous Non-Small Cell Lung Carcinoma. North Central Cancer Treatment Group, Dy, Grace K. (507) 538-1760.

S0910 A Phase II Study of Epratuzumab (NSC-716711) in Combination with Cytarabine and Clofarabine for Patients with Relapsed or Refractory Ph-Negative Precursor B-Cell Acute Lymphoblastic Leukemia. Southwest Oncology Group, Advani, Anjali S. (216) 445-9354.

Phase III

AREN0534 Treatment for Patients with Bilateral, Multicentric, or Bilaterally-Predisposed Unilateral Wilms Tumor. Children's Oncology Group, Ehrlich, Peter F. (734) 615-3303.

CALGB-90601 A Randomized Double-Blinded Phase III Study Comparing Gemcitabine, Cisplatin, and Bevacizumab to Gemcitabine, Cisplatin, and Placebo in Patients with Advanced Transitional Cell Carcinoma. Cancer and Leukemia Group B, Rosenberg, Jonathan E. (415) 353-9278.

GOG-0252 A Phase III Clinical Trial of Bevacizumab with IV Versus IP Chemotherapy in Ovarian, Fallopian Tube, and Primary Peritoneal Carcinoma. Gynecologic Oncology Group, Walker, Joan Leslie (405) 271-8707.

GOG-0259 Nurse-Delivered WRITE Symptoms vs. Self-Directed WRITE Symptoms vs. Care as Usual for Optimal Symptom Management for Women with Recurrent Ovarian, Fallopian Tube, or Primary Peritoneal Cancer. Gynecologic Oncology Group, Donovan, Heidi (412) 624-2699.

GOG-0261 A Randomized Phase III Trial of Paclitaxel Plus Carboplatin Versus Ifosfamide Plus Paclitaxel in Chemotherapy-Naive Patients with Newly Diagnosed Stage I-IV, Persistent or Recurrent Carcinosarcoma (Mixed Mesodermal Tumors) of the Uterus. Gynecologic Oncology Group, Powell, Matthew A. (314) 362-3181.

RTOG-0920 A Phase III Study of Postoperative Radiation Therapy (IMRT) +/- Cetuximab for Locally-Advanced Resected Head and Neck Cancer. Radiation Therapy Oncology Group, Machtay, Mitchell (215) 955-6706.

S0819 A Randomized, Phase III Study Comparing Carboplatin/Paclitaxel or Carboplatin/Paclitaxel/ Bevacizumab with or without Concurrent Cetuximab in Patients with Advanced Non-Small Cell Lung Cancer. Southwest Oncology Group, Herbst, Roy S. (713)792-6363.

Other

CALGB-150803 A Validation of the 64-Gene Signature Using Affymetrix-HG_U133A Array in Stage I NSCLC from the CALGB Lung Cancer Study (140202). Cancer and Leukemia Group B, You, Ming (314) 362-9294.

GOG-8011 Steroid Hormone and Receptors in Endometrial Carcinoma. Gynecologic Oncology Group, Leslie, Kimberly K. (505) 272-6386.