Chest radiography should not be used for [lung-cancer] screening, nor should screening be viewed as an alternative to smoking cessation counseling.
Leukemia arsenal has new drugs

PONATINIB (ICLUSIG), bosutinib (Bosulif), and omacetaxine (Synribo) are enhancing treatment for persons with certain forms of leukemia, according to Jorge Cortes, MD, deputy chair of the Department of Leukemia at The University of Texas MD Anderson Cancer Center in Houston, who led the facility’s clinical trials for the three drugs.

“It’s important to have as many therapies as we can, because rarely does one drug or combination succeed for all patients,” explained Cortes. For example, although imatinib (Gleevec), nilotinib (Tasigna), and dasatinib (Sprycel) have shown strong efficacy in persons with Philadelphia chromosome–positive acute lymphoblastic leukemia (Ph+ALL) or chronic myelogenous leukemia (CML), up to 60% of persons with CML do not respond to these tyrosine kinase inhibitors (TKIs).

Ponatinib is expected to drastically improve outcomes for patients with CML and Ph+ALL.

Bosulif is a second-generation TKI that works as well as dasatinib and nilotinib, according to Cortes. “The significant difference is bosutinib is more specific in its activity, inhibiting [disease-causing] BCR-ABL and SCR, but not other tyrosine kinases; this leads to fewer harsh side effects.”

Omacetaxine is a synthetic version of the CML drug homoharringtonine, which is derived from an evergreen tree found in China. It works in a completely different manner in that it stifles creation of the aberrant BCR-ABL protein rather than blocking the protein’s activity.

“This is an important option for patients who’ve had several tyrosine kinase inhibitors fail and for those who cannot tolerate those drugs,” observed Cortes.

The Affordable Care Act (ACA) could impact aspects of health insurance coverage for cancer as a previous condition, patients on Medicaid, routine costs in clinical trials, and prescription drugs.

Which aspect do you think will have the greatest impact?

Go online to answer our poll question. We’ll publish the results and a new question in the next issue.

…AND YOU ANSWERED In the last issue, we asked if you think patients should have read/write access to their electronic health record. Interestingly, none of the responders answered “No.”

Limited Data Access would be ok: 43%

Yes: 57%
IN THE NEWS

Diet can thwart prostate cancer progression

MEN WITH early-stage prostate cancer may be able to inhibit tumor growth and progression by following a high-fiber diet, according to recent study results.

The research focused on inositol hexaphosphate (IP6), a major constituent of high-fiber diets. Prostate cancer occurs at similar rates in Asian and in Western cultures, yet tends to progress in the latter but not in the former. Asian diets are high in IP6, whereas Western culture diets generally are not, explained study coauthor Komal Raina, PhD, of the University of Colorado Cancer Center in Aurora, Colorado, in a statement issued by the facility.

Raina’s team fed mice with transgenic adenocarcinoma of the prostate with 1%, 2%, or 4% IP6 in drinking water from age 4 weeks until age 28 weeks. Control mice received plain water.

Magnetic resonance imaging (MRI) showed a profound reduction in tumor size among the mice in the IP6 group, wrote Raina and colleagues in Cancer Prevention Research (2013;6[1]:40–50). IP6 also significantly decreased membrane phospholipid synthesis and glucose metabolism.

“The study’s results were really rather profound,” Raina emphasized. “We saw dramatically reduced tumor volumes, primarily due to the antiangiogenic effects of IP6.”

Raina’s team concluded that oral IP6 supplement blocks growth and angiogenesis of prostate cancer in transgenic adenocarcinoma of the mouse prostate in conjunction with metabolic events involved in tumor sustenance. This results in energy deprivation within the tumor, suggesting that IP6 has the potential to suppress growth and progression of human prostate cancer.

ONS addresses cancer genetics in oncology nursing

ONCOLOGY NURSES should integrate new evidence-based genetic and genomic information into practice and educate patients and the public about the potential benefits and limitations of genetics and genomic testing, asserts the Oncology Nursing Society (ONS) in a new position statement, “Oncology Nursing: The Application of Cancer Genetics and Genomics Throughout The Oncology Care Continuum,” available at www.ons.org/Publications/Positions/HealthCarePolicy.

The authors affirm in the statement that advances in the understanding and application of cancer genetics (single-gene hereditary disorders) and cancer genomics (the identification of multiple genes, DNA sequences, and proteins and their interaction with one another) have dramatically changed the practice and implementation of cancer risk assessment, risk reduction, prevention, screening, diagnosis, therapeutics, and the options for personalized health care. Whole-genome sequencing, exome sequencing, and other high throughput technologies have increased the need for oncology nurses to incorporate genetic and genomic information into every aspect of oncology nursing, according to the ONS document.

The organization calls for oncology nurses to be able to demonstrate education and practice that is consistent with the American Nurses Association (ANA) Essentials of Genetic and Genomic Nursing: Competencies, Curriculum Guidelines, and Outcome Indicators, 2nd Edition. (This and other ANA publications are available at www.nursingworld.org.) The ONS position statement offers several other recommendations for oncology nurses on the subject of cancer genetics and genomics, such as maintaining continuing education in cancer genetics and genomics to provide up-to-date care, advocating for the ethical and legal use of genetic and genomic information, and helping to reduce barriers to cancer-predisposition genetic counseling and testing in diverse populations.