CMS Targets "Better Oncology Care"

On February 12 the U.S. Department of Health and Human Services (HHS) announced a new multipayer payment and care delivery model designed to "support better care coordination for cancer care." The initiative will include 24-h access to practitioners for beneficiaries undergoing treatment and an emphasis on coordinated, person-centered care, aimed at rewarding "value of care, rather than volume." This is consistent with several other recent changes in the payment system through the Centers for Medicare & Medicaid Services (CMS). "Based on feedback from the medical, consumer and business communities, we are launching this new model of care to support clinicians' work with their patients," said Patrick Conway, MD, CMS chief medical officer and deputy administrator for innovation and quality. "We aim to provide Medicare beneficiaries struggling with cancer with high-quality care around the clock and to reward doctors for the value, not volume, of care they provide. Improving the way we pay providers and deliver care to patients will result in healthier people."

As part of the HHS "better care, smarter spending, healthier people"–branded program, the new Oncology Care Model is one of several payment and care delivery models developed by the CMS Innovation Center as a result of and in compliance with the Affordable Care Act. The model was created in response to feedback from the oncology community, patient advocates, and the private sector and is intended to "invest in physician-led practices, allowing the practices to innovate and deliver higher quality care to their patients." CMS is seeking the participation of other payers in the model to include oncology patients across a broader population base.

The Oncology Care Model encourages participating practices to improve care and lower costs through episode-based, performance-based payments that financially incentivize high-quality, coordinated care. Participating practices will receive monthly care management payments for each Medicare fee-for-service beneficiary during an episode to support oncology practice transformation, including the provision of comprehensive, coordinated patient care. The Oncology Care Model will provide support for participating physician practices to address the complex care needs of the beneficiary population receiving chemotherapy treatment and will reward practices that focus on furnishing services that specifically improve patient experiences and health outcomes. Physician group practices and solo practitioners that provide chemotherapy for cancer and are currently enrolled in Medicare may apply to participate. Other payers, including commercial insurers, Medicare Advantage plans, state programs, and Medicaid managed care plans, are also encouraged to apply.

The broader HHS innovation initiative is focused on 3 key areas: (1) linking payment to quality of care; (2) improving and innovating care delivery; and (3) sharing information more broadly to providers, consumers, and others to support better decisions while maintaining privacy. "With the Oncology Care Model, CMS has the opportunity to achieve 3 goals in the care of this medically complex population who are facing a cancer diagnosis: better care, smarter spending, and healthier people," added Dr. Conway. "As a practicing physician and son of a Medicare beneficiary who died from cancer, I know the importance of well-coordinated care focused on the patient's needs."

For more information on the Oncology Care Model, see: http://innovation.cms.gov/initiatives/Oncology-Care/.

Centers for Medicare & Medicaid Services

Forecast for SPECT and PET Radiopharmaceuticals

A report released in January by Bio-Tech Systems, Inc. (Marina del Rey, CA), indicated that the North American market for SPECT and PET radiopharmaceuticals is strong and likely to grow at a rapid rate over the next decade. The proprietary report stated that U.S. sales of SPECT and PET radiopharmaceuticals reached $1.44 billion in 2014 and projected that this figure will rise to $6.45 billion by 2022. Total SPECT radiopharmaceutical sales were up 9.6% in 2014 ($876 million), and PET radiopharmaceutical sales were up 10.1% ($564 million). SPECT radiopharmaceutical sales were projected to grow ~5% in 2015, with PET sales increasing >15% as new products are introduced and ^{82}Rb PET "regains its market platform." The report cited a number of new products in the development/approval pipeline for both SPECT and PET that may drive future sales. Newly approved PET neurology products for Alzheimer disease (AD) will develop a robust sales platform, and CMS is anticipated to be more "accommodating" to neurologic imaging in this setting, based on its approval of 3 products thus far for AD imaging. Greater sales of PET cardiology agents are also anticipated, with the introduction of a new rubidium generator and completion of a phase III trial for ^{18}F-flurpiridaz (Lantheus Medical Imaging; Billerica, MA) for myocardial imaging. Another driver will be the continuing transition from highly enriched uranium to low-enriched uranium in the production of ^{99}Mo for ^{99m}Tc. The report cited the likely influence of new oncologic biomarkers, particularly those from specialty pharmaceutical companies, and of products based on genetic markers. Bio-Tech Report #380, "The North American Market for SPECT and PET Radiopharmaceuticals," is available at: www.biotechsystems.com/reports/330/default.asp.

Bio-Tech Systems, Inc.

SEER Results on Disparities in Major Cancers

In a study published online on February 19 ahead of print in *JAMA Oncology*, Zeng et al. from Vanderbilt University School of Medicine (Nashville, TN) reported on changes in disparities by race, age, and sex in major cancers in the United States as documented in the National Cancer Institute Surveillance, Epidemiology, and End Results (SEER) program from 1990 to 2010. The study included follow-up data on longitudinal analyses from 1.02 million patients who were diagnosed with cancer of the colon/rectum, breast, prostate, lung, liver, pancreas, or ovary from 1990 to 2009. The authors focused specifically on survival data, looking at hazard ratios and 95% confidence intervals for cancer-specific deaths in the periods 1995–1999, 2000–2004, and 2005–2009, and compared these groups of data with similar data from patients diagnosed from 1990 to 1994. The authors identified marked improvement in survival for cancers of the colon/rectum, breast, prostate, lung, and liver, particularly for patients between the ages of 50 and 64 y when compared with elderly patients. A similar, although less marked, result was observed for lung and pancreatic cancers. Although African American patients saw greater improvements in prostate cancer survival than white patients from 1990 to 2009, survival in ovarian cancer actually declined during this period while improving in white patients. African Americans continued to experience poorer survival than whites from all cancers. The authors concluded that "age- and race-related differences in survival improvements over time may be explained, at least in part, by differences in cancer care across these subpopulations." They cited a lack of population-specific evidence as one possible element in the care differential. They added that "our findings are a call to action; future studies should strive to include diverse populations, particularly the elderly and African Americans, in order to establish an evidence base for treatment of all patients."

JAMA Oncology

Advances in Epigenome Mapping

The National Institutes of Health (NIH) announced on February 18 that researchers supported by its Common Fund's Roadmap Epigenomics Program had successfully mapped the epigenomes of more than 100 types of cells and tissues, providing new insight into which parts of the genome are used to make specific types of cells. The data, available to the biomedical research community, is available at the National Center for Biotechnology Information website (www.ncbi.nlm.nih.gov/). "This represents a major advance in the ongoing effort to understand how the 3 billion letters of an individual's DNA instruction book are able to instruct vastly different molecular activities, depending on the cellular context," said NIH Director Francis Collins, MD, PhD, describing a series of publications on this work. "This outpouring of data-rich publications, produced by a remarkable team of creative scientists, provides powerful momentum for the rapidly growing field of epigenomics."

Members of the Roadmap Epigenomics Consortium published a description of the epigenome maps in the journal *Nature* on February 19 (*Nature*. 2015;518:317–330). More than 20 additional articles, published in *Nature* and *Nature*-associated journals, have demonstrated ways in which these maps can be used to study human biology. "What the Roadmap Epigenomics Program has delivered is a way to look at the human genome in its living, breathing nature from cell type to cell type," said Manolis Kellis, PhD, senior author of the February 19 paper.

Researchers can now compare data from different cell types. "Today, sequencing the human genome can be done rapidly and cheaply but interpreting the genome remains a challenge," said Bing Ren, PhD, a coauthor of the *Nature* article. "These 111 reference epigenome maps are essentially a vocabulary book that helps us decipher each DNA segment in distinct cell and tissue types. These maps are like snapshots of the human genome in action." Described as the most comprehensive catalog of epigenomic data from primary human cells and tissues to date, this work will also power continued exploration of the humane epigenome through the International Human Epigenome Consortium.

National Institutes of Health