

An Optimal Care Coordination Model for Medicaid Patients with Lung Cancer: Finalization of the Model and Implications for Clinical Practice in the United States

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In 2016 the Association of Community Cancer Centers (ACCC) embarked on a three-year, multiphase initiative to design, test, and refine an Optimal Care Coordination Model (OCCM) for Medicaid patients diagnosed with lung cancer.¹ Disparities between Medicaid and non-Medicaid or privately insured patients, such as underutilization of systemic treatments with bevacizumab combinations or targeted therapy with tyrosine kinase inhibitors for advanced-stage cancers² and lack of survival advantage,³ emphasize the need for special considerations in this socio-economically disadvantaged population to ensure equitable outcomes with other patients diagnosed with lung cancer. The aim of the OCCM is to help U.S. cancer programs identify and reduce the effects of such disparities between Medicaid and non-Medicaid patients through assessments that facilitate and expand access to the appropriate use of multidisciplinary coordinated care, and ultimately help strengthen care delivery systems for lung cancer.¹

Phase I of the OCCM initiative involved the design and development of the Model from January 2016 onward by a Technical Expert Panel, with guidance from the Advisory Committee, ACCC staff, and consultants. An environmental scan was conducted, which identified six broad barriers to optimal care delivery that were found uniformly among Medicaid patients diagnosed with lung cancer.¹ The barriers, not ordered by frequency or priority, were as follows:⁴

- Financial and social barriers, such as access to reliable transportation, lost income, provision of childcare or other family support, and out-of-pocket expenses for services and medications.
- Unequal access to high-quality cancer care, including appropriate diagnostic and referral pathways at the first point of care, and restrictive healthcare provider networks.
- Limited patient empowerment due to a low level of health literacy, a distrust of the healthcare system, and the perceived stigma of lung cancer.
- Inadequate integration of patient navigation into care teams.
- Underdeveloped care coordination within multidisciplinary teams.
- Delayed access to supportive services to address biopsychosocial needs, palliative care, survivorship, and hospice services and end-of-life care.



Phase II involved the selection of seven community-based cancer programs between March and June 2017 to pilot test the Model.⁵ Phase III involved the implementation of quality improvement projects by these seven testing sites between October 2017 and September 2018.⁵ As part of this process, testing sites conducted self-assessments of their care delivery systems for Medicaid patients with lung cancer and advanced multidisciplinary coordinated care.

In this article, we discuss revisions to the Model following beta testing to develop the final version, rationale for significant revisions, and nationwide dissemination of the OCCM. Dissemination is intended to foster and accelerate the adoption of multidisciplinary coordinated care delivery among a wider network of U.S. cancer programs and ensure optimal clinical outcomes for patients with lung cancer, especially among underserved populations.

Methods

As part of the OCCM beta testing, each of the seven testing sites was asked to provide feedback on the Model and suggestions for revision. Qualitative feedback was provided through quarterly reports and included direct feedback on the Model, process-level challenges and opportunities, key transferable lessons, and how application of the Model uncovered misinterpretation of certain terms or assessment areas. Quantitative results included the OCCM selfassessments conducted by the testing sites before and after beta testing and patient-level results that were reported by individual testing sites in their final reports. Crosscutting feedback was considered, irrespective of OCCM assessment area selection(s) by individual testing sites and other suggested changes. In addition, consultants and ACCC staff who worked with all seven testing sites provided feedback on how the sites interpreted the Model and used it to inform their quality improvement projects. Based on these experiences and results, revisions to the Model were made to enhance clarity of intent and ensure ease of use and reproducibility, specificity, and uniformity across the OCCM assessment areas. The Technical Expert Panel, Advisory Committee, ACCC staff, and consultants further refined the Model as part of a two-stage revision process, which involved an in-person meeting followed by a remote followup, where a lead person was designated for each OCCM assessment area, and a consensus approach was used for decision making. For each OCCM assessment area, efforts were made to identify current and targeted quality metrics and to provide a defined list in the final Model.

Results

Beta testing of the OCCM demonstrated the ability of the Model to offer practical guidance to cancer programs on prioritizing the unique care and treatment needs of Medicaid patients and improving care coordination to achievable target levels across a variety of high-impact areas, including patient access to care, prospective multidisciplinary case planning, and tobacco cessation.⁵ The experiences and results of beta testing at the sites demonstrated key successes such as enhanced collaboration within cancer programs and improved lung cancer programming for patients, site-specific challenges in implementation of the OCCM such as inadequate staffing at project start and lack of centralized data collection and coordination, and transferable lessons such as maintaining a patient-centered focus.⁵ Additionally, opportunities were identified to improve care coordination beyond lung cancer to other tumor types.

Refinements to the Beta OCCM

Refinements were implemented with the goal of clarifying vague terms, such as tobacco education, navigation, and multidisciplinary treatment planning, and the pre-condition that progress to higher and improved levels of care coordination implied that lower-level requirements continued to be met. These refinements were intended to ensure specificity and uniformity across OCCM assessment areas and corresponding metrics and to promote further ease of use by cancer programs. The overall number of high impact assessment areas was reduced in the final Model-emphasis was specifically placed on patient navigation, to align with findings of the environmental scan. Furthermore, Management of Comorbid Conditions was excluded as an assessment area since it was perceived to be outside the scope of work for the beta testing contract period and, therefore, not selected for beta testing by any of the sites. The sites also reported that descriptions of some assessment areas in the beta OCCM were vague, while the corresponding list of quality metrics for each assessment area was extensive. In response, efforts were made to include specific language or detailed descriptions that could lead to measurable benchmarks and identify current and targeted quality metrics, which helped provide a shorter and more precise selection for the final version.

Composition of the Final OCCM

The final OCCM, a patient-focused framework for cancer programs to evaluate care coordination for lung cancer and

plan quality improvements, is composed of 12 interrelated assessment areas (see Figure 1, page 74), each with 5 levels.⁶ The 12 assessment areas to be evaluated synergistically are as follows:

- 1. **Patient entry into lung cancer program,** which addresses factors such as referral sources, referral processes, and timely access to appropriate care.
- 2. **Multidisciplinary treatment planning,** which addresses factors such as patient evaluation and inputs on treatment planning and recommendations provided by a range of healthcare providers
- Clinical trials, which addresses factors related to overcoming cultural, financial, and logistical barriers encountered by patients in accessing clinical trials.
- 4. **Supportive care**, which addresses factors related to the evaluation of physical, emotional, mental, and spiritual symptoms, and the infrastructure and resources available in the cancer program to manage these symptoms across the continuum of care.
- 5. Survivorship care, which addresses factors related to the ongoing surveillance for recurrence of primary cancer, prevention and early detection of new health problems, management of latent and long-term toxicities associated with cancer treatments, and overall patient wellness across the continuum of care.
- Financial, transportation, and housing needs, which addresses factors related to the financial barriers to care and mechanisms to identify and eliminate such barriers.
- 7. **Tobacco education**, which addresses factors related to the evaluation of tobacco use and provision of tobacco education, including cessation strategies for patients with lung cancer.
- 8. **Navigation,** which addresses factors related to the identification of patient needs and barriers to care, and strategies to minimize gaps in service among vulnerable and underserved groups.
- **9. Treatment team integration**, which addresses the depth, breadth, and effectiveness of team collaboration through the care continuum.
- **10.** *Physician engagement,* which addresses factors related to disease expertise, availability to the patient and care team, effectiveness in team science and communication, and leadership roles.
- 11. Electronic health records (EHRs) and patient access to information, which addresses factors related to the facilitation of interdisciplinary communication along the

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continuum of care through the capacity to access clinical information from physician practices, hospitals, outpatient clinics, and diagnostic centers through optimized EHR platforms.

12. Quality measurement and improvement, which addresses factors related to quality metrics that can reveal potential disparities in coverage type, socioeconomic status, and gender, race, and ethnicity, and help monitor these to ensure minimal variation in patient outcomes.

The levels of care coordination for lung cancer in the OCCM (Figure 1, page 74) are rated from 1 (indicative of fragmented care and a low focus on optimal care coordination) to 5 (indicative of optimal care coordination with a patientcentered focus that requires education and engagement with patients and their caregivers to facilitate shared decision making and increased participation). Progress to a higher level of care coordination implies that all conditions for the lower level(s) of care coordination continue to be met. Depending on the OCCM assessment area and contextual factors, achieving Level 5 may be attainable for some cancer programs and aspirational for others. Each OCCM assessment area requires the selection of at least one specific and measurable parameter as an evidence-based and institution-specific benchmark for continuous monitoring of quality improvement. The OCCM can be deployed by any cancer program, regardless of size, setting, or resource level, to help identify disparities, strengthen and expand access to optimal lung cancer care, and articulate aspirational goals.

The model is available in its entirety online at accc-cancer. org/care-coordination. Cancer programs should strongly consider taking the online assessment at accc-cancer.org/6steps to get a downloadable customized report of their results in each assessment, as well as a crosswalk to more than 100 quality measures.

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Figure 1. Assessment Areas^a for Lung Cancer Care Delivery in the Final Optimal Care Coordination Model



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Dissemination of the Final OCCM

The final OCCM is being disseminated nationwide by ACCC through its vast network of U.S. cancer program members. The proposed use of the final OCCM is as a Model offering institutional guidance on conducting self-assessments of care delivery capabilities for Medicaid patients diagnosed with lung cancer (especially across the 12 high-impact assessment areas), identifying areas for improved care coordination in this patient population, and implementing improvements through varied approaches in support of multidisciplinary coordinated care delivery for lung cancer. The final package includes a webbased benchmarking tool for the 12 OCCM assessment areas and other resources, including online and print versions of the model,⁶ the environmental scan⁴ access to a quality improvement project planning tool, a podcast and publication highlighting the experiences of several testing sites, and the literature review bibliography compiled in 2016,⁷ to enable expanded use by cancer programs and practices. ACCC worked with an external web design team to develop an optimal user experience with revised webpages and the web-based benchmarking tool for the OCCM assessment areas (Figure 2, page 76).⁸ Additionally, a brochure highlighting the benefits of using the Model will be sent to 50,000 cancer program professionals, and a series of blogs and a podcast promoting the model will be released. Project leadership will also participate in interviews on the OCCM to be published in a variety of relevant print and online publications.

Discussion

Advances in systemic and targeted cancer therapies have not benefited all patient populations equally, with a higher burden of disease often experienced by socio-economically disadvantaged subgroups and other vulnerable populations.^{2-3,9-11} The goals of high-quality care delivery across the cancer continuum include timely access to optimal, evidence-based care; coordination and communication among providers, including primary care and specialty care; promotion of a patientcentered management approach, including effective communication between patients and their providers; and implementation of value-based payment models with incentives to reduce health disparities.¹² Therefore, special considerations are needed to ensure that patient subgroups, such as those with Medicaid insurance, receive timely access to high-quality care across the cancer continuum and, ultimately, achieve equitable outcomes when compared with other patients. The first step is to describe and quantify processes in existing care delivery systems. The OCCM, with its special focus on Medicaid patients diagnosed with lung cancer, has the potential to address the dichotomy between the disproportionate disease burden in vulnerable patient subgroups and their limited access to appropriate, high-quality, and timely cancer care, ultimately improving clinical outcomes. The OCCM provides cancer programs with a resource to evaluate their care delivery practices, especially for underserved and vulnerable patient subgroups. This includes the ability to conduct baseline assessments that, in turn, help identify disparities and inequities; prioritize areas for improvements that require additional time, efforts, and resources; and facilitate access to multidisciplinary coordinated care. The Model supports a comprehensive approach to optimal care delivery across the cancer continuum, spanning timely access from diagnosis to survivorship, supportive care, and end-of-life care.

The medical and care coordination needs of Medicaid patients with lung cancer are likely to have important implications on lung cancer care delivery in the future. This initiative focused on Medicaid patients as the target population; however, the distribution of patients by payer status during beta testing was proof that many non-Medicaid patients at each testing site were also able to participate in and benefit from quality improvement projects implemented for lung cancer care delivery.⁵ This included beneficiaries eligible for both Medicare and Medicaid programs who may have more complex care needs resulting in higher costs compared with nondual eligible beneficiaries.¹³⁻¹⁵ In clinical practice, defining value-based cancer care is essential, preferably through the use of evidence-based and institution-specific metrics that evaluate structure, process, or patient outcomes across the cancer care continuum.¹² In this regard, the OCCM can be transformative for cancer programs and can contribute significantly to value-based care. Evidence-based quality metrics, including those from the Centers for Medicare & Medicaid Services Merit-based Incentive Payment System (CMS MIPS), the American Society of Clinical Oncology Quality Oncology Practice Initiative (ASCO QOPI), the National Committee for Quality Assurance Patient-Centered Specialty Practice Recognition (NCQA PCSP), the Agency for Healthcare Research and Quality Consumer Assessment of Healthcare Providers and Systems (AHRQ CAHPS®), and the Commission on Cancer (CoC) 2020 Cancer Program Standards, the National Comprehensive Cancer Network Guidelines®, and the National Committee for Quality Assurance's Oncology Medical Home Recognition Program, are important components of the OCCM framework and assessment tool to promote continuous monitoring for quality improvement by cancer programs.⁶

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Figure 2. Online Assessment Tool for the Final Optimal Care Coordination Model

OVERVIEW

The Association of Community Cancer Centers (ACCC) has created a model framework (the Model) for cancer care providers to use in improving care coordination for lung cancer patients covered by Medicaid. A three-year grant from the Bristol Myers Squibb Foundation provided funding for development of the Model.

Guided by an interdisciplinary **Advisory Committee**, led by physician champion coprincipal investigators, and a **Technical Expert Panel**, ACCC developed the Model in three phases:

Phase One—Research and Beta Model Development Learn More

Phase Two—Testing the Beta Model Learn More

Phase Three—Data Analysis and Outcomes Learn More

THE MODEL

ACCC is pleased to make available the Model for Improving Care Coordination, which is designed for programs and practices of all sizes and resource levels. In addition to being a **comprehensive PDF report**, the Model has been transformed into a free, interactive online tool to evaluate the current state of care coordination for lung cancer patients and identify focus areas for improvement and actionable next steps.

Beyond a framework for evaluation and setting quality improvement priorities, the Model aligns quality improvement (QI) with existing quality measures, including those from the Centers for Medicare & Medicaid Services Merit-based Incentive Payment System (CMS MIPS), the American Society of Clinical Oncology Quality Oncology Practice Initiative (ASCO QOPI), the National Committee for Quality Assurance Patient-Centered Specialty Practice Recognition (NCQA PCSP), the Agency for Healthcare Research and Quality Consumer Assessment of Healthcare Providers and Systems (AHRQ CAHPS®), and the Commission on Cancer (CoC) 2020 Cancer Program Standards.

The Model has 12 assessment areas, each with a high impact on optimal care coordination for lung cancer patients. The assessment areas start at the time of initial patient referral to cancer services and continue through survivorship and end of life. Each assessment area is divided into 5 levels. Level 1 attributes represent basic care and coordination; Level 5 attributes represent optimal best practice. The Model includes a crosswalk of assessment areas to quality measures.

Assess Your Cancer Program with the Model

Source: Association of Community Cancer Centers. Improving care coordination: overview, 2020. Available online at: accc-cancer.org/projects/ improving-care-coordination/overview.



Read Executive Summary





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Application of the OCCM framework and assessment tool by a cancer program at the point of care can be used to identify specific gaps and barriers that prevent healthcare systems from being able to deliver care equitably and efficiently to their constituencies. Asking complex, in-depth questions about the quality of care given and how that care is accessed is the first step in attempting to address barriers to care. Given the current societal examination of structural racism, many cancer programs are asking, "How can we better serve our traditionally underserved communities?" While this question is important, without an accurate evidence-based evaluation of the cancer program's current care delivery system, the question remains rhetorical and devoid of action. Health disparities are created and maintained long before the lung cancer point of care. To eliminate disparities evident for Medicaid and non-Medicaid patients with cancer, facilitation and expansion of access to appropriate care is essential. This expansion must be inclusive of all community identities, including but not limited to those based on race, ethnicity, indigenous groups, religion, sexual orientation, rural residence, and recent immigrant status. A true assessment of the cancer program is necessary for any quality improvement and expansion effort, and programs should judge themselves by how well they treat their most vulnerable patients, not just their most resourced patients.

The OCCM also has important implications for Medicaid policy related to the delivery of cancer care. The expansion of Medicaid eligibility and statewide coverage brings into focus the need for delivery system- and payment-related reforms to improve the quality of care, reduce duplicative or unnecessary services, and control program costs through managed care and other initiatives that coordinate care across the continuum of services.¹⁵

In conclusion, refinements to the OCCM were informed by the experience and results of beta testing at seven cancer programs and led to improved clarity of intent, ease of use and reproducibility, specificity, and uniformity before wider dissemination. The final Model can be utilized by cancer programs and practices to conduct objective self-assessments of their capabilities across 12 high-impact areas of care delivery for lung cancer that will prioritize the unique care and treatment needs of Medicaid patients as an important step toward ensuring equitable health outcomes with non-Medicaid patients. Dissemination of the final Model across the wider network of U.S. cancer programs has high potential to advance multidisciplinary coordinated care delivery, define value-based care delivery metrics, and improve clinical outcomes for patients nationwide, regardless of cancer type. Randall A. Oyer, MD, is medical director, Ann B. Barshinger Cancer Institute, Penn Medicine Lancaster General Health, Lancaster, Pa. Christopher S. Lathan, MD, MS, MPH, is medical director, Dana-Farber Cancer Institute at St. Elizabeth's Medical Center, Boston, Mass., and assistant professor of medicine Harvard Medical School, Boston, Mass. Matthew P. Smeltzer, PhD, MStat, is assistant professor in the Division of Epidemiology, Biostatistics, and Environmental Health, School of Public Health, University of Memphis, Memphis, Tenn. Amanda Kramar is chief learning officer and Leigh M. Boehmer, PharmD, BCOP is chief medical officer, Association of Community Cancer Centers, Rockville, Md. Thomas M. Asfeldt, MBA, RN, BAN, was formerly the director, Outpatient Cancer Services and Radiation Oncology, Sanford USD Medical Center, Sioux Falls, S.D., and Sanford Health Cancer Center, Worthington, Minn.

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A publication from the ACCC education program, "Improving Care Coordination: A Model for Lung Cancer Patients on Medicaid." Learn more at accc-cancer.org/care-coordination or scan this QR code.

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