An Optimal Care Coordination Model for Medicaid Patients with Lung Cancer: Rationale, Development, and Design

BY RANDALL A. OYER, MD; CHRISTOPHER S. LATHAN, MD, MS, MPH; THOMAS M. ASFELDT, MBA, RN, BAN; AMANDA KRAMAR; AND LEIGH M. BOEHMER, PHARMD, BCOP
Patient-centered care that is accessible, affordable, evidence based, and well coordinated is integral to high-quality cancer care delivery. Medicaid and other socioeconomically disadvantaged patients may have disproportionately high-risk profiles (e.g., prevalence of adult cigarette smoking: 24.5 percent for Medicaid insurance [including dual coverage or other state-sponsored health plans] vs. 10.5 percent for private insurance). Additional challenges include inconsistent coverage for lung cancer screening in state Medicaid programs and burden from comorbidities. Advanced-stage cancer diagnosis; barriers related to travel distance and time, vehicular access, or other reliable options; and treatment initiation delays are other challenges. Cancer outcomes are also often worse among Medicaid patients compared to privately insured patients (e.g., significantly lower median overall survival in stage I/II non-small cell lung cancer [3.42 years vs. 6.23 years, respectively; \( p < 0.05 \)).

In 2016, the Association of Community Cancer Centers (ACCC) embarked on a three-year initiative to design, test, and refine an Optimal Care Coordination Model (OCCM) for Medicaid patients with lung cancer. This model aimed to assess and strengthen lung cancer care delivery systems across the United States that have the potential to improve outcomes for Medicaid patients by identifying disparities and inequities and facilitating access to and use of multidisciplinary coordinated care. The multidisciplinary aspect includes disciplines such as medical oncology, pathology, radiation oncology, thoracic surgery, oncology nursing, and patient navigation. Case planning requires enhanced coordination from multidisciplinary teams for timely care and improved patient experience and clinical outcomes.

**Development of an Optimal Care Coordination Model for Medicaid Patients with Lung Cancer**

As a leading United States education and advocacy organization comprising more than 28,000 multidisciplinary practitioners in 2,100 cancer programs and practices, ACCC is uniquely positioned to undertake this initiative. A 13-member Advisory Committee was established in January 2016, with representation from physicians, an oncology nurse, a social worker, a patient navigator, cancer center executives, patient advocates, and researchers, with expertise spanning medical oncology, disparities research, and community outreach. The
list of members, including affiliations and expertise, is available at accc-cancer.org/projects/improving-care-coordination/leadership. This Advisory Committee assessed institutional environments, patients’ social determinants of health, social needs, and their consequences that lead to disparities in care to inform OCCM development. The environmental scan included a literature review of experiences and outcomes of Medicaid patients across the lung cancer care continuum, such as outcome disparities with non-Medicaid patients, treatment variations and delays, care coordination between primary care providers and oncology specialists, and supportive services to manage psychosocial needs. These documents are available on the ACCC website. Key stakeholder interviews were conducted with Advisory Committee members, lung cancer survivors and patient advocates, and staff from ACCC Cancer Program Members between April and May 2016. Broad barriers to lung cancer care delivery for Medicaid patients were identified, including:  

- Financial and social barriers, such as transportation, lost income, and out-of-pocket expenses  
- Unequal access to high-quality cancer care, such as diagnostic and referral pathways, and restrictive 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 psychosocial needs, palliative care, survivorship, and end-of-life care.
Subsequently, a competitive application process open to all ACCC Cancer Program Members was established, and five Development Sites demonstrating best practices in care coordination for Medicaid patients with lung cancer were selected. The criteria to evaluate the sites included 1) volume of Medicaid patients with lung cancer; 2) diversity of the patient population; 3) breadth and depth of patient services; and 4) relationships with healthcare providers, Medicaid offices, and community partners. Site-specific perspectives of physicians, staff, and Medicaid patients on effective practices, challenges, and solutions for coordinating care delivery were documented during on-site visits between August and October 2016. Key stakeholder interviews encompassed screening, diagnosis, and treatment; problems in accessing timely, high-quality care; social supports; involvement in healthcare decision-making; and factors affecting treatment outcomes. After these interviews, an in-person meeting of the Advisory Committee was convened in November 2016. Development of the OCCM was undertaken by a Technical Expert Panel with guidance from the Advisory Committee, ACCC staff, and research consultants, as required. The list of members, including affiliations and expertise, is available at: accc-cancer.org/projects/improving-care-coordination/leadership.

OCCM Design

Central to the design of the OCCM was the National Cancer Institute Community Cancer Centers Program’s Multidisciplinary Care (MDC) assessment tool. This tool was designed to enhance access to care and quality of care delivery in the community setting, where most patients with a cancer diagnosis receive care. It measures implementation across key assessment areas, such as case planning, physician engagement, and coordination of care, on a scale of 1 (evolving MDC program) to 5 (achieving MDC excellence). The OCCM has an architecture similar to the MDC assessment tool, with multiple assessment areas and aspirational levels of development.

The OCCM was designed to be a usable framework that offers lung cancer programs, regardless of setting, size, and resource level, and the flexibility to conduct continuous assessments of care coordination practices and measure strengths and opportunities in the pursuit of optimal patient outcomes. The OCCM framework was guided by two overarching principles: 1) a patient-centered focus, where patients’ needs and preferences determine how the health system organizes and provides care, and 2) reliance on data and evidence for assessment areas to ensure the Model’s responsiveness and relevance. The corresponding model, which builds on the MDC assessment tool, focused on 13 high-impact assessment areas across the lung cancer care continuum:

1. Patient access to care
2. Prospective multidisciplinary case planning
3. Financial, transportation, and housing needs
4. Management of comorbid conditions
5. Care coordination
6. Treatment team integration
7. Electronic health records and patient access to information
8. Survivorship care
9. Supportive care
10. Tobacco cessation, including evaluation of use
11. Clinical trials
12. Physician engagement
13. Quality measurement and improvement.

Details are provided in a companion manuscript by Smeltzer et al. to be published in Oncology Issues, Vol. 36, No. 3, 2021. An important principle of the OCCM is that it was not intended to be all-encompassing, resulting in a lengthy academic exercise, but rather a high impact, usable model that could be deployable in any setting.

Each OCCM assessment area has five levels, rated from 1 (indicative of fragmented care with low focus placed on care coordination) to 5 (indicative of optimal care coordination with a patient-centered focus). The assessment tool not only aids cancer programs in identifying the current level but is designed to determine an achievable or aspirational future target level and ultimately facilitate improvement to this level. Each program’s starting point will be different, as will its target level for near- and long-term improvement. Depending on the assessment area, achieving a Level 5 will be attainable for some programs and may be aspirational for others. Though a program may choose to evaluate an assessment area in isolation, the OCCM framework relies on the interplay between assessment areas within a system and should, ideally, be evaluated in its entirety. For each assessment area, programs
should select at least one measurable parameter as an evidence-based, institution-specific benchmark to address patient experience, patient outcomes, and cost-effectiveness. These metrics should be continually monitored to inform future quality improvement plans. Congruent efforts in care coordination include the Commission on Cancer, which collects standardized data for monitoring of treatment patterns and outcomes\(^\text{16}\); the Quality Oncology Practice Initiative,\(^\text{17}\) which collects evidence-based performance data to identify, develop, and implement quality improvement initiatives; and the Oncology Care Model, a specialty model from the Center for Medicare and Medicaid Innovation to address financial barriers.\(^\text{18}\)

**BETA OCCM and Beyond**

Community-based cancer programs were selected for pilot testing via a competitive application process. These sites conducted self-assessments of lung cancer care delivery systems and promoted multidisciplinary coordinated care through quality improvement projects over 12 months. These results (Smeltzer et al., 2021) informed model refinements. Overall, the Technical Expert Panel met at least five times to review inputs from development and testing sites, then working with the Advisory Committee and the Lead Clinical Research Consultant on recommended changes to the model. The Technical Expert Panel focused its reviews on titles, definitions, and level elements of assessment areas to reflect direct learnings from the National Cancer Institute Community Cancer Centers Program project and daily experiences in the cancer center environment. A final manuscript by Oyer et al., describing the refinements, nationwide dissemination with online resources to enable expanded use, and implications for Medicaid policy and clinical practice is slated for publication in *Oncology Issues*, Vol. 36, No. 4, 2021.

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, medical director, Dana-Farber Cancer Institute at St. Elizabeth’s Medical Center, Boston, Mass. Thomas M. Asfeldt, MBA, RN, BAN, is an oncology executive formerly affiliated with Sanford USD Medical Center, Sioux Falls, S.D., and Sanford Health Cancer Center, Worthington, Minn. Amanda Kramar is chief learning officer and Leigh M. Boehmer, PharmD, BCOP, is medical director, Association of Community Cancer Centers, Rockville, Md.

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