

An APP-Physician Model Improves Risk Stratification and Palliative Care





As the landscape of medicine changes in terms of treatment options, modalities, delivery methods, and patient populations, a failure to shift clinical thinking and practices can create a stagnancy that causes healthcare providers to miss the most basic patient needs—ones that impact their overall outcome while on treatment. Despite our efforts to offer our oncology patients the best possible treatment outcomes, quality of life, and disease control—if not cure—my practice (Cancer Care Associates of York in York, Pa.) came to understand that we were treating patients following a one-size-fits-all model. In 2018, as a newly enrolled practice in the Oncology Care Model (OCM), we quickly realized that our patients were *not* one-size-fits-all, and that each deserved individualized care tailored to his or her specific cancer diagnosis, treatment-related symptoms, existing comorbidities, age, social determinants of health, and high-risk disease and/or symptom status, including the need for palliative care to address treatment toxicities.

We assessed our goals of care to improve patient outcomes, all while providing cost-effective, care-initiated conversations between our advanced practice providers (APPs) and physicians. We began to reevaluate what our providers needed to do differently to improve patient outcomes, symptom management, and a fragmented healthcare system, while effectively identifying high-risk patients (with a goal of reducing hospitalizations). With limited resources in our community setting, our practice experienced delays in referrals to other disciplines (such as palliative care) and had a lack of understanding regarding the true benefits of early palliative care interventions, which often left some patients suffering and struggling. The solution to streamlining care and creating a solid foundation of cancer care management needed to begin with our practice.

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Getting Started

The data the Centers for Medicare & Medicaid Services released via OCM's practice-based reports allowed us to understand our current practice patterns, benchmark these against other OCM practices, and identify areas for improvement, such as:

- Timely referral to hospice care
- Number of patients being sent to the emergency department
- Evaluation and management of depression
- Cost savings of chemotherapeutic treatment options.

What we found was eye-opening. The data showed us:

- Over- and underuse of resources
- Areas in which we failed to promote the overall well-being of our patients, specifically for patients who were suffering from treatment toxicities until their death
- Too many patients being sent to and treated in the emergency department because they were not seen in a timely manner in our clinic or referred to other disciplines for symptom management

- A lack of assessment—and intervention—of social determinants of health that affect disease outcomes. Cancer is not a freestanding disease; cancer manifests itself in the setting of a pre-existing state of health. The burden of cancer care is impacted by race and ethnicity, socio-economic status, health insurance coverage (or lack thereof), existing comorbidities, and geography.¹

These data helped remind us that risk stratification and palliative care services should be at the forefront of care, not just at the end of life. Palliative care is a highly organized system for delivering care, as well as a philosophy of care that sets goals to prevent and relieve suffering and to support the best possible quality of life for patients and their families—regardless of disease stage or need for other therapies.² Yet due to the scarcity of comprehensive palliative care programs in community settings, a lack of internal education about palliative care and high-risk assessments, and a fragmented healthcare system that hinders continuity of care, our patients are not always receiving truly interdisciplinary cancer care.

Our New Care Model

The integration of APPs in our practice streamlined care in several domains and, as a result, improved continuity and transitions of care, team collaboration, and overall patient satisfaction. Our experience was not an anomaly: Studies have demonstrated that APPs help reduce the burden of oncology care by supporting other aspects beyond direct patient care.³

In collaboration with physicians, our APPs developed a primary model of care that allows them to see patients from initial diagnosis throughout the trajectory of their cancer care journey. The model's design promoted APP autonomy and decision making based on clinical guidelines, and it provided physician support to implement supportive care programs and assessment tools. This care model was one of the first steps to building better relationships with our patients and developing an internal dialogue with all disciplines involved in the treatment of our patients.

As our APPs assumed the management and monitoring of high-risk patients or those with complex treatment plans and increased toxicities, our practice was afforded more consistent decision making by our providers, better coordination with transitions of care, and reduced treatment delays and fragmented care for new and existing patients on active treatment. Simply put, this care model improved patient, APP, and provider satisfaction.

Our Palliative Care and High-Risk Model

With this APP-led model in place, we turned our attention to palliative care. Launching a palliative care initiative in our community practice setting required several steps:

- We developed internal consultations and an interdisciplinary approach to care through prolonged-scheduled visits with our APPs. At these dedicated 45- to 60-minute visits, our APPs addressed palliative and high-risk patients' needs. Patients were scheduled for these visits by internal referral after their initial consultation, at disease progression or when experienc-

ing treatment-related symptoms, and following hospital discharge.

- We set up early symptom management that was comprehensive, focusing on patients' physical, emotional, social, financial, relational, and spiritual needs. Comprehensive visits allowed for detailed assessments and interventions as needed.
- We included families in decision making, which allows for establishment of support systems early in the disease course, not just at the end of life—often with potential complications. Family integration also provided a means of educating all involved family members about the patient's disease, treatment, and goals of care.
- We included advanced care planning and initiation of multi-disciplinary referrals.
- We followed APP-led development of guidelines and processes to leverage data in our electronic health record (EHR) to identify at-risk patients based on specific criteria.

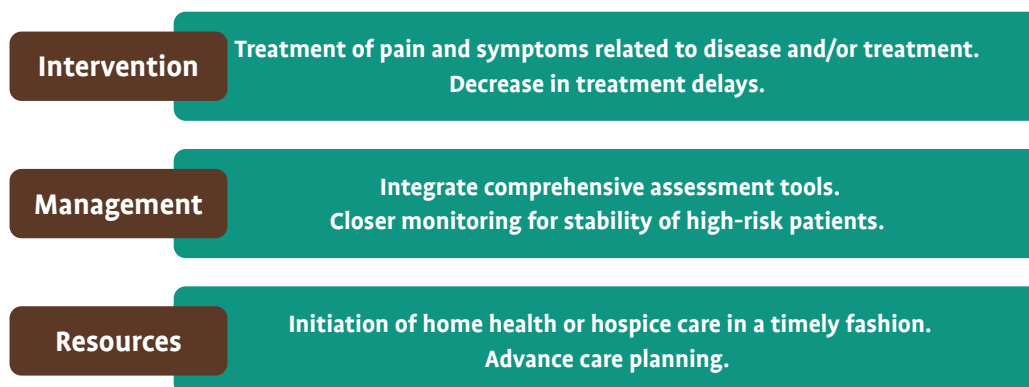
To answer the question, “Who's at risk?” we developed stratification assessment criteria based on:

- Select diagnoses (i.e., head and neck, lung, and pancreatic cancers)
- Treatment regimens with significant toxicities (i.e., doxorubicin plus cyclophosphamide, paclitaxel, and 5-fluorouracil plus irinotecan and oxaliplatin)
- Performance status at diagnosis
- Palliative needs identified at consultation or initial visit in the clinic or post-hospital discharge
- Palliative performance status of 50 percent or lower (i.e., patients unable to do work, patients with extensive disease).

Our second high-risk category focused specifically on our geriatric patients. Older oncology patients present with unique challenges related to economic well-being, pre-existing comorbidities, and independence, all of which increase mortality risk.³ They are at higher risk for chemotherapy intolerance, toxicity, and treatment-related toxicity.³ They also require a dedicated, comprehensive focus that highlights problems with daily activities, comorbidities, medications, nutritional status, cognitive function, psychological state, and social support system(s).^{2,3} Our APPs were tasked with integrating measures and assessment tools that gave special consideration to the needs of our geriatric patients with cancer and that were inclusive of their age but not exclusive of other factors, such as pre-existing comorbidities, mobility, Eastern Cooperative Oncology Group performance status, nutritional status, and cognition, to name a few. Figure 1, right, outlines the pillars of our palliative care and high-risk care model. Our APPs use three assessment tools for consistent monitoring, management, and equal criteria measurement for all high-risk and palliative care patients, and we are currently piloting a custom geriatric risk assessment tool:

- *The Edmonton Symptom Assessment System*⁴ rates the intensity of nine common symptoms experienced by patients with cancer, including pain, tiredness, nausea, depression, anxiety, drowsiness, loss of appetite, and well-being.

Figure 1. The Pillars of Our Palliative Care and High-Risk Model of Care



- *The Mini Nutritional Assessment*[®] is a nutrition screening and assessment tool used to identify patients aged 65 and older who are malnourished or at risk of malnutrition.⁵
- *The Fulmer SPICES* framework for assessing older adults focuses on six common “marker conditions”—sleep problems, problems with eating and feeding, incontinence, confusion, evidence of falls, and skin breakdown. These conditions provide a snapshot of a patients’ overall health and quality of care.⁶
- *Our custom geriatric risk assessment* is currently being piloted for assessing geriatric patients (aged 65 or older and on active treatment). The tool evaluates medications, mobility, pain, nutrition, sleep, treatment adherence, anemia, and creatinine for risk of toxicities to treatment. This tool is being modified to include other assessment criteria and comorbidities for better high-risk scoring.

Using these tools, our APPs can better identify symptoms patients often did not think to discuss and healthcare needs that require referrals. These tools also provide a dynamic view of our patients over time, as it relates to decline in performance status that requires treatment adjustment.

Impact and Benefit of Our Palliative Care and High-Risk Model

Since program inception, we have improved the continuity and consistency of our patient care. Patients are now afforded the opportunity to be evaluated without delays in potentially life-saving therapies. We have learned that the earlier we intervene in providing care that meets the complex and comprehensive needs of oncology patients, the better the outcomes are overall, including end-of-life care. We have witnessed our patients’ appreciation for education on palliative care and the benefits of early intervention. Our patients also liked that this education was provided by their oncology care team.

As a practice, we appreciate and understand that palliative care cannot be viewed as an end-of-life measure—but should be seen as an adjunct to quality oncology care—and that early and timely palliative care visits with an APP prevent delays in hospice referrals and decrease the incidence of patients dying within three days of hospice. Data show that we improved patient referrals to hospice to greater than seven days of advanced illness and stopped active treatment for advanced disease sooner than two to three months before hospice enrollment. We also increased the number of patients completing their advanced directives sooner in their disease trajectory, as well as those obtaining follow-up in our clinic prior to use of the emergency department.

Geriatric Follow-Through

We had to address our geriatric patients with cancer independent of our other patient populations due to their dedicated needs and risks. We define our geriatric patients with cancer as those 65 years of age or older. Our practice has treated 3,723 of these patients (2,266 female; 1,457 male). Currently, we have 651 geriatric patients in active treatment, including combination chemotherapy regimens, immunotherapy, and oral oncolytics.

Since the initiation of our pilot geriatric risk assessment, we have gained a greater understanding of these patients’ needs specifically as they relate to social determinants of health, which impact overall patient outcomes. APPs assess patients on active treatment at eight-week intervals, and scores are recorded in the EHR after provider review. To date, 543 patients (age 65 to 86 years old) have completed the assessment on at least one visit, with one or more risk factors identified—the most common being mobility and polypharmacy. This assessment has provided us greater details about other aspects of patients’ lives that they often do not share or that we have not previously considered as impacting patient outcomes.

We have experienced some challenges. For example, we believe some of our patients may be underscoring the assessment. Further,

patients often are not completely transparent and honest about what they need until they are sick or struggling to balance health-care needs with daily living needs. Finally, for some patients, we have missed out on key factors that impact initial decision making (i.e., active comorbidities, current side effects that are disease- and treatment-related, nutritional decline).

Practice Barriers

Given that Cancer Care Associates of York is a small community practice, we are often limited in resources, and the ability to collaborate with surrounding universities is not readily available. The limitations of what we can do internally are reflected in our data. Key indicators we observed directly or indirectly as barriers to fully assessing skilled needs include:

- Use of tool(s) that can miss the assessment of key indicators that influence decision making and impact patient outcomes
- Time constraints for patients completing the assessments in our current practice workflow
- Time constraints experienced by clinicians in assessing scores and applying interventions to patients' current clinical status
- Inadequate resources and staff for data capture and real-time information provided to physicians.

However, these barriers have empowered us to do better. Identifying barriers and outcomes showed that we must be willing to look at what is not working, engage patients in their own outcomes, and initiate practice changes that take our care from better to best in order to gain a true measurement and understanding of our patients' clinical status and risk score. To do so, our practice looks to:


- Provide practice education, training, and professional development regarding palliative care and risk stratification among nurses, APPs, and physicians
- Provide clinical time to see patients as a means of preventing delays in treatment and symptom management
- Engage in early transitions of care to a multidisciplinary approach
- Create a foundation and model that is supportive of the patient and provides a balance in continuity of care
- Make dose modifications and select choice of poly-chemotherapy treatments vs. single agent therapies based on risk-stratification tools and scores before patients experience treatment toxicities.

Where Do We Go from Here?

Oncology must never become stagnant but, instead, continue to innovate, improve patient outcomes and the patient experience, streamline cancer care delivery, and look for cost-saving opportunities. Specific to our practice, we plan on moving forward by:

- Implementing changes to our comprehensive geriatric assessment by adding categories with numerical values to measure risk, including:
 - Active comorbidity risk
 - Nutrition and malnutrition risk
 - Cognitive assessment risk
 - Frailty assessment risk
- Integrating the comprehensive geriatric assessment into our EHR for easier access, interpretation, and application of results
- Evaluating patients in a timely manner so that we can plan early intervention(s) to reduce complications and enhance quality of life.

Looking to the future, we can deliver person-centered, holistic care that is comprehensive and inclusive of the total person and not just the disease. High-risk patients require more time and resources, but care that is delivered in a coordinated manner makes the burden of cancer lighter. To attain this level of care coordination, our practice looks to:

- Improve communication with all disciplines involved in the care of oncology patients
- Improve and grow our high-risk and palliative care program
- Change the mindset of what patients believe about hospice care to one of understanding
- Change the culture of our practice to one of learning and expansion. 

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