



# The Annenberg Academy for Team-Based Care

## Colorectal Cancer

### MANAGING PATIENTS WITH METASTATIC COLORECTAL CANCER: KEY CONCEPTS

The management of patients with metastatic colorectal cancer (mCRC) has evolved dramatically in recent years due to greater understanding of the pathobiology and identification of mutations. Therapies targeting these mutations have been developed and are increasingly being integrated into treatment due to their ability to extend overall survival and improve quality of life in select subgroups of patients with mCRC. Key concepts to keep in mind when managing patients with mCRC are:

- Understanding of the anatomical site of CRC is important as right-sided tumors often involve DNA mismatch repair (MMR) mutations, while left-sided tumors typically feature mutations in KRAS, APC, PIK3CA, and p53, impacting treatment strategies and prognosis<sup>1</sup>
- Molecular profiling is essential for patients with mCRC since genetic markers, such as KRAS, NRAS, HER2, NTRK, BRAF mutations, RET fusions and microsatellite instability (MSI), are useful to guide personalized treatment decisions<sup>2,3</sup>
- First-line treatment for patients with mCRC commonly involves 5-fluorouracil-based regimens, often combined with targeted therapies such as VEGF inhibitors and EGFR inhibitors, tailored based on the tumor's molecular profile<sup>2,3</sup>
- For patients with microsatellite instability-high (MSI-H) or mismatch repair-deficient (dMMR) tumors, immunotherapy with checkpoint inhibitors offers significant survival benefits, marking a shift in treatment paradigms for patients with mCRC<sup>4-7</sup>
- Targeted therapies are integrated into treatment regimens based on specific genetic alterations, including BRAF V600E, HER2, KRAS G12C, NTRK, and RET fusions, thereby enhancing treatment efficacy for refractory cases<sup>8-10</sup>
- Precision medicine for patients with CRC involves tailoring treatment based on genetic and molecular profiles, ensuring more effective and individualized patient care, improving outcomes, and managing treatment-related toxicities<sup>11</sup>

- Proper sequencing of therapies, considering prior treatments and tumor characteristics, is crucial for optimizing outcomes and managing disease progression effectively

### INTERPROFESSIONAL COLLABORATION: PRINCIPLES

For the evolution in treatment to be of optimal benefit to patients, comprehensive strategies for choosing, delivering, monitoring, and modifying therapy have become especially important. As a consequence, care is typically provided by an interprofessional, multidisciplinary care team that extends beyond physicians to include nurses, nurse practitioners, pharmacists, physician associates, social workers, and others, often involving collaboration between providers in community and academic settings.

To that end, the following reflects a conversation among 3 healthcare professionals about interprofessional care and how collaborative practices and teams can strengthen our health systems.

**Christopher Flores, MD:** In medical school, I was taught that the patient-doctor relationship was the most critical and important dynamic in healthcare. But after 30-plus years in clinical care, I can attest that healthcare is a team sport and we deliver care in teams of individuals with different training, different skills, different talents. And we teach each other, we learn from each other, we brainstorm and solve problems to meet the needs of the patient.

I want to make a point that interprofessional refers to clinicians in different professions, such as nurses, nurse practitioners, pharmacists, physicians, and physician associates. Multidisciplinary refers to clinicians in different specialties or sub-specialties, such as cardiology, dermatology, and oncology. LaTosha, do you want to talk about interprofessional collaboration?

**LaTosha Mollette, DNP:** The World Health Organization defines interprofessional collaboration as when multiple healthcare workers from various backgrounds work together with patients, families, and communities to provide the best healthcare possible.<sup>12</sup> This is exactly what teamwork should look like, but it is important to remember that healthcare teams can vary from patient to patient.

I work in a rural setting, working together with various healthcare professionals to improve access to needed



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healthcare services, which helps to prevent unnecessary delays in care and treatment. Ultimately, working together as a team helps to meet the needs of others to improve health outcomes, patient care, and safety.

**Christopher Flores, MD:** I think all of us in healthcare are trying to figure out how to do things better, make life easier for ourselves, and make everybody happier, patients, our staff, and ourselves, to make things more sustainable. Interprofessional collaboration can accomplish this. There's a growing body of literature that shows that interprofessional collaboration can improve patient outcomes, acceptance of treatment, and satisfaction.<sup>13-16</sup> It can decrease costs, improve efficiency, reduce disparities, improve health equity, and make things more sustainable for providers.<sup>13,17-24</sup>

The Interprofessional Education Collaborative has identified 4 behavioral competencies for effective interprofessional collaboration: 1) roles and responsibilities; 2) values and ethics; 3) communication; and 4) teams and teamwork.<sup>25</sup> Michael, do you want to talk a little bit about the roles and responsibilities?

**Michael Smith, PharmD:** Certainly, it's one of these things that we don't often think about, but it's important for 2 reasons. One, understanding our own responsibility and roles that we have within our team and what our teammates can expect from us in terms of what we can deliver to them and deliver to patients.<sup>25</sup> The other is understanding what your team can do for you as well, so that you understand their educational background and you can help them practice at the top of their license by utilizing their skillset to the fullest extent.

It is increasingly common for clinicians, even those within a profession, to take different educational and practice paths leading to clinical practice. As an example, there are various differences in training a pharmacist. Nowadays, all pharmacists graduate with a Doctor of Pharmacy degree (PharmD), but some of us have done 1 or 2 years of residency training or postdoc fellowships. So, getting to know your teammates and what you can expect from them and what they can expect from you can really help your team function at a high level.

**Christopher Flores, MD:** We talk about values and ethics as well.<sup>25</sup> In medicine, we're constantly required to make very difficult and complicated treatment decisions for our

patients. We really are missing a great opportunity if we don't involve the opinions of all the members of our team. What does the nurse think about this plan or what does the social worker who has talked to the family members think about this plan? Or what does the physical therapist think, who has been working with the patient for the last 3 days? LaTosha, what do you think about communication?

**LaTosha Mollette, DNP:** Communication is essential in everything we do, and it's how we're able to effectively achieve goals, as well as improve relationships and interactions with others.<sup>25</sup> The healthcare system is often described as being fragmented with little communication and collaboration, but when healthcare professionals communicate responsibly and respectfully, this allows them to overcome differences and work together to accomplish a shared goal, including learning from each other, to better improve patient outcomes and safety.<sup>18,26-28</sup>

**Christopher Flores, MD:** We're talking a lot about teams and teamwork. Michael, do you have any other points you want to make about teamwork?

**Michael Smith, PharmD:** Most of us are members of various teams during the course of a typical day. Think about the team members that you work with to take care of patients, but also think about a team from a networking standpoint. Do you have a network of like colleagues? As an example, other pharmacists in our healthcare system may reach out to me for advice about a patient with pain, whether or not I'm actually seeing the patient. We can make our team small, we can make them big, but we should be making our teams in ways that everybody's functioning at a high level and putting the patient at the center of the team.

**Christopher Flores, MD:** Michael, LaTosha talked about the fragmented healthcare system and how interprofessional collaboration can help with that. Do you have any examples from your experience?

**Michael Smith, PharmD:** Think about the patient's experience through our healthcare system. Even if a patient receives all of their healthcare within 1 system, they often have to travel to many different places just to access care. From a primary care clinic to a hospital, to a specialty clinic, to a pharmacy. We can fill these gaps by using our interprofessional framework, our education, and allowing our collaborative practice teammates to step in and fill that.



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**Christopher Flores, MD:** In conclusion, I just want to summarize that medicine is a team sport and that there is a growing body of evidence that supports the various benefits of interprofessional collaboration. LaTosha, Michael, do you have any final thoughts?

**LaTosha Mollette, DNP:** I think just being willing to change is crucial. I think sometimes we have become complacent in clinical practice, but our healthcare system is ever evolving. So, learning how to be a team player always benefits everyone involved.

**Michael Smith, PharmD:** I've learned a great deal from my interprofessional colleagues, and I hope that I've helped them learn as well, with the ultimate goal of really improving patient care.

### INTERPROFESSIONAL CARE FOR PATIENTS WITH CANCER

The multidisciplinary care of patients with CRC is recommended by the American Society of Clinical Oncology and National Comprehensive Cancer Network beginning at the time of diagnosis and treatment planning.<sup>2,3,29</sup> These recommendations are based on the benefits of multidisciplinary care observed in cancer care in general and in patients with CRC, particularly those with later-stage CRC.<sup>30-34</sup> The multidisciplinary care team in oncology typically consists of a medical oncologist, pathologist, radiation oncologist, and surgical oncologist. As the care provided to patients with mCRC has grown more complex, care provided by an interprofessional team that also includes non-physicians such as dietitian, nurse, nurse practitioner, pharmacist, physician associate, social worker, and others, has become essential to address not only the biological or physical aspects of the disease but also the psychosocial and emotional impacts. The interprofessional care team also can increase access to care by addressing logistical and affordability barriers.

Successful interprofessional patient care requires effective interprofessional (continuing) education (IPCE). A systematic review of studies from 2007 to 2017 assessed the impact of IPCE on learner outcomes across a variety of diseases and health settings.<sup>35</sup> IPCE occurred when members of 2 or more health professions learned together for the purpose of improving interprofessional collaboration or patient health outcomes. The review showed that IPCE was effective in:

- Improving attitudes towards other healthcare professionals

- Increasing the value placed on a team-based approach for improving patient care
- Changing collaborative behavior

The review found mixed results regarding changes in the understanding and knowledge of roles and responsibilities of other healthcare professionals.

Another review of studies from 2015 to 2020 across diseases and health settings assessed the impact of IPCE on the delivery of effective patient care.<sup>36</sup> The scoping review found a positive relationship between IPCE and 5 of the ten Centers for Medicare & Medicaid Services quality metrics:

- Length of stay
- Medical errors
- Patient satisfaction
- Patient or caregiver education
- Mortality

Two more recent reviews focused on the impact of IPCE on interprofessional collaboration within cancer care.<sup>37,38</sup> In the first, a systematic review of 7 studies that utilized various educational interventions showed that IPCE significantly improved:

- Collaborative practice
- Patient-centered communication
- Team dynamics
- Mutual respect
- Understanding of each profession's role

Many of the improvements among the interprofessional care team led to improvements in patient-centered care. However, the benefits for patients in terms of increased satisfaction, improved quality of life, and better treatment adherence could not be assessed.

A recent scoping review of 28 studies sought to identify the current status of IPCE in cancer care as a guide to future education.<sup>38</sup> The review showed great heterogeneity among the studies, thereby limiting the ability to draw firm conclusions. Overall, the review suggested IPCE leads to improved teamwork skills and interprofessional collaboration.

### CASE EXAMPLE #1



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An interprofessional team of oncology nurses, pharmacists, and physicians at an eastern US academic cancer center recognized that patient satisfaction was decreasing due to long wait times in the infusion center, ranging from 30 minutes to 5 hours.<sup>39</sup> The team identified that the number of patients treated per day was increasing in the face of several workflow challenges, including nursing staff issues, pharmacy staff issues, capacity issues, and treatment orders that were not received by the pharmacy until the day of treatment or were unsigned. Over the following months, an interprofessional team met to completely identify the root causes of patient dissatisfaction and subsequently to develop a plan to address the root causes. It was soon realized that the working relationship between nurses in the infusion clinic and pharmacy staff was limited. To address this problem and improve communication and collaboration between the 2 professions, pharmacy staff were invited into the infusion clinic. Furthermore, the interprofessional leaders emphasized to the nurses and pharmacy staff that they were all one team and that it was essential that they work together to find solutions. To do so, team members needed to be willing to see things from another's point of view. Over time, trust within the nurse and pharmacy staffs developed, which provided a deeper understanding of the problems each profession faced, ultimately helping them to develop a plan that worked for everyone. For example, the pharmacy staff had conducted an analysis of wasted medications a year or so earlier, finding that much of the waste was due to patients not coming in for treatment. Working together, the nursing and pharmacy team developed a screening tool that led to a phone assessment

with the patient prior to coming to the infusion center. Coupled with additional solutions developed by the interprofessional team, the average wait time was reduced to approximately one-half hour. Clinical leaders also noted that improved team collaboration led to improvements in patient education and ability to provide greater psychosocial support to patients. Building on this success, the interprofessional team was able to move on to solve other problems—and more quickly.

### CASE EXAMPLE #2

An interprofessional team of oncology nurses, pharmacists, and quality team members at a midwestern US academic cancer center identified high variation in oral chemotherapy workflows, lack of standardized safety checks, inefficient use of pharmacy time, and inadequate data collection, which raised concerns about patient safety.<sup>40</sup> Historically, patients were educated by the physician or advanced practice provider, with little involvement of the pharmacy staff, while nurses would receive and refill requests for oral oncolytic medications. Through a comprehensive data collection process, one of the issues identified by the interprofessional team was that the process for providing medication refills was suboptimal. Using lean methodology, the team developed a standard work process, wherein it became mandatory for the nurse to complete a safety note prior to the order for oral chemotherapy being filled. Following implementation of the standard work process, the rate at which medication refills went unutilized dropped to <1% and completion of the safety note significantly increased.

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