

ASSOCIATION OF COMMUNITY  
CANCER CENTERS

ONCOLOGIC  
INTRAVENOUS AND ORAL  
COMBINATION REGIMENS

STRATEGIES FOR  
CARE COORDINATION



Effective Practices Publication

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## INTRODUCTION

Combination therapy, a treatment modality that combines two or more anti-cancer drugs to target different cancer growth processes, can be prescribed for the treatment of many types of cancers. When combination therapy incorporates both intravenous (IV) and oral agents, patients may experience overlapping toxicities and face challenges with effective therapy management. To help community cancer programs improve care for patients receiving combination IV/oral therapy, the Association of Community Cancer Centers (ACCC) conducted a mixed-methods study titled, "Oncologic Intravenous and Oral Combination Regimens: Strategies for Care Coordination." The aims of the study were to evaluate barriers when patients are treated with IV/oral combination regimens and identify effective practices around care coordination and the management of treatment-related adverse events (AEs).

The study began with two surveys: one directed at healthcare professionals (n=157), and one directed at patients

and caregivers (n=113). Then, the survey results were contextualized by holding focus groups and individual interviews with members of the cancer care team.

## TOP CHALLENGES

When asked about the top challenges associated with IV/oral combination regimens, clinicians and patients had different perspectives:

- Patients felt their biggest challenges were side effects (57.5%); inconvenience going to medical appointments (37.2%); and financial burden (36.3%).
- Cancer clinicians perceived the top challenges to be the cost of care to the patient (24.0%); coordination and delivery of oral oncolytic agents (22.1%); and health insurance coverage (21.9%).

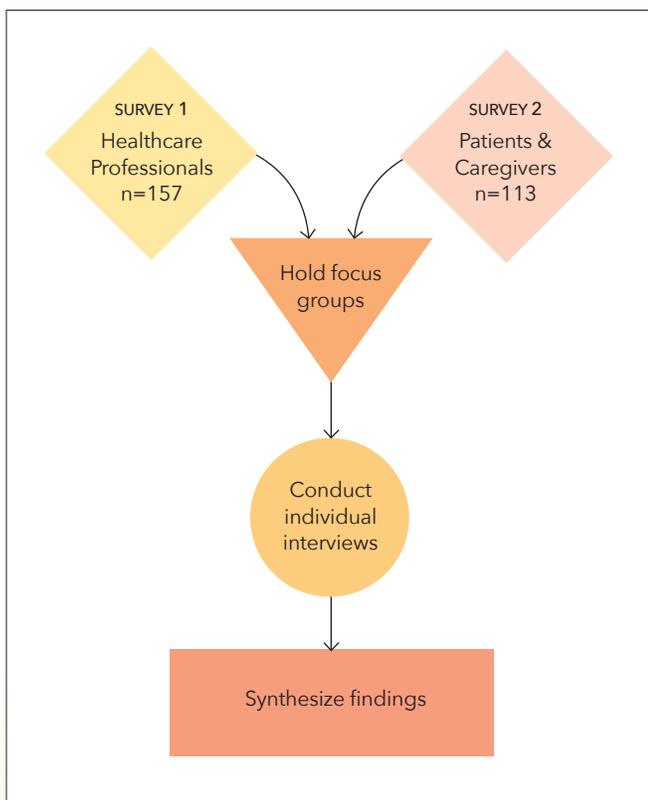
During focus groups, cancer clinicians discussed how the problems associated with the cost of care appeared to be worsening, not improving. Their cancer programs continued to invest considerable staffing resources to develop ways to reduce the financial burden on patients. Cancer clinicians also noted the challenges around coordinating oral agents (e.g., dispensing, tracking medications from various specialty pharmacies) and assessing patients for adherence and side effects. Clinicians observed that while most patients had some form of health insurance, the majority were underinsured and ended up with very high out-of-pocket costs for oral therapies.

## MANAGING TREATMENT-RELATED ADVERSE EVENTS

When patients treated with IV/oral combination regimens develop treatment-related adverse events (AEs), clinicians may have difficulty knowing which drug is the causative agent. In the survey and focus groups, cancer clinicians indicated the most useful factors to help them determine which treatment may be causing AEs are:

- **The timing of side effects in relation to the administration of the oral or IV medication.** During the focus groups, pharmacists remarked how side effects for certain medications are highly predictable and often

Figure A: Mixed-methods Study



occur within the first several weeks of treatment (e.g., chemotherapy-induced neutropenia)<sup>1</sup>. However, AEs from other medications such as immune checkpoint inhibitors may occur at any point<sup>2</sup>.

- **Multidisciplinary discussions among oncologists, pharmacists, and nurses.** Physicians and nurses emphasized the importance of discussing treatment-related AEs with pharmacists, especially when patients were being treated with IV/oral combination regimens. Oral agents are associated with a high number of food-drug and drug-drug interactions<sup>3</sup>. Focus group participants also discussed when dose modifications (holds, reductions, and/or discontinuations) may be implemented, especially after conferring with pharmacists.
- **Experience with the regimen.** During focus groups, cancer clinicians explained how they grew in their ability to identify specific treatment-related side effects as they gained experience treating patients with specific agents. For instance, they felt that immune-related adverse events (irAEs) had become easier to identify and manage as clinicians saw similar reactions in multiple patients treated with checkpoint inhibitor therapy.

Oncology clinicians mentioned how collaborative practice agreements<sup>4</sup> with non-oncology subspecialists can ensure they are available to help coordinate care if patients present with severe reactions.

## FINANCIAL TOXICITY

In the survey, healthcare professionals indicated they perceived that the cost of care to the patient was the greatest challenge with IV/oral combination regimens. This was especially true for medical oncologists and pharmacists who noted that health insurance coverage is often inadequate, and patients pay very high out-of-pocket (OOP) costs for oral therapies. Studies have shown that high OOP costs are associated with the delay or discontinuation of oral cancer therapy<sup>5</sup>. While new and novel cancer therapies have revolutionized care, researchers have also studied how rising drug prices and other treatment-related costs have contributed to growing financial toxicity<sup>6</sup>. Financial toxicity refers to the negative impact of a cancer diagnosis on a patient's financial health<sup>7</sup>.

During focus groups and interviews, clinicians discussed how their cancer programs had taken multiple steps to prioritize reducing financial toxicity. Some of those proactive strategies included:

- Moving from a reactive to a proactive approach to address common financial concerns (e.g., out-of-pocket costs, discussing the impact the regimen may have on the patient's ability to work, letting patients know about financial assistance resources, etc.).
- Reviewing the structure and makeup of how financial counseling services are offered to patients. Hire additional staff as needed and coordinate with hospital social workers when referrals are needed.
- Finding ways to enable methods to make it easier to increase referrals for social workers or financial navigators by all members of the cancer care team.
- Finding patient assistance programs and helping patients begin the process of filling out the necessary application forms. Equip staff with the ACCC Patient Assistance and Reimbursement Guide<sup>8</sup>. (Found online at [acc-cancer.org/PAG](http://acc-cancer.org/PAG).)

## CARE COORDINATION

Patients receiving IV/oral combination regimens often interact with multiple members of the care team (e.g., infusion nurse, pharmacist, oncologist) as they receive systemic medical treatment. The coordination of care may include symptom assessment, checking bloodwork, ensuring patients have transportation to/from visits, etc.

In the survey, 23.2 percent of cancer clinicians felt the most effective strategies for coordinating care for patients receiving IV/oral combination regimens was to provide care coordination by in-house nurses, navigators, and clinical pharmacists. During focus groups and interviews, clinicians described several aspects of effective care coordination:

- **In-house pharmacists** can provide patient education and make scheduled follow-up calls to see how patients are tolerating their oral therapy. Since pharmacists who provide medically integrated dispensing (MID) services often have direct access to other

members of the cancer care team, they can discuss patient issues and ensure appropriate referrals are made to address patient concerns<sup>9</sup>.

- **Dedicated nurse navigators** can focus on managing patients treated with oral agents. These navigators may be called “oral chemotherapy navigators” and may provide intensive follow-up when patients begin their treatment<sup>10</sup>. After several months on a particular regimen, these patients may require less frequent check-ins from the oral chemotherapy navigator.

- **Templated electronic treatment plans for oral therapies** can incorporate orders for scheduled follow-up labs, National Comprehensive Cancer Network (NCCN) monitoring parameters, dose modification instructions, symptom management instructions, etc. These treatment plans can be integrated with electronic communication (e.g., patient portal or secure messaging) to automatically trigger patient reminders to get bloodwork and make their scheduled appointments.

**Figure B:** Example of a Tri-fold wallet card from UC Health

<p><b>Current treatment and medication:</b></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p><b>Diagnosis:</b></p> <p>_____</p> <p>_____</p> <p>_____</p>	<p><b>Oncology patient information:</b></p> <p>Name: _____</p> <p>Address: _____</p> <p>City: _____</p> <p>State: _____</p> <p>ZIP: _____</p> <p>Phone: _____</p>
<p><b>Allergies:</b></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p><b>Oncologist(s) contact information (medical and radiation):</b></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	

17-CAN-1734

Cancer Care [uchealth.org](http://uchealth.org)

**When and who you should call.**

SITUATION	HOURS	WHO TO CALL
Urgent situations		
Urgent situations		
Scheduling questions		

For non-urgent requests, you may also use My Health Connection at [uchealth.org](http://uchealth.org) or call .

For medication refills, please call your pharmacy.

**Inform 911 or emergency room staff.**

“I am a cancer patient at UCHealth. I have recently received treatment: chemotherapy, radiation or surgery. I have had a fever at home (or other specific complaint).”

Make sure you have your patient information card with you so you can give the emergency providers these details.

- **Track delivery of oral medications** sent by external pharmacies to ensure patients start treatment on the correct date. When patients receive their oral agents from external specialty pharmacies, cancer clinicians emphasized the need to track delivery of medications and to determine how frequently patients may be contacted by the pharmacists working at those specialty pharmacies. In some instances, patients may have a Post Office Box rather than a physical address. Clinicians mentioned they would have the medications shipped to the cancer center so that patients can pick up their medicine during their treatment visit.

In focus groups, cancer clinicians also discussed how they were using patient wallet cards to remind patients about their combination treatment by listing all the drug names, phone numbers for medical oncology, and instructions on when and who they should call.

## ADHERENCE TO ORAL THERAPIES

When asked about the top challenges associated with IV/oral combination therapy, 11.5 percent of patients selected “not remembering to take the medication” as one of their top challenges. These patients were more likely to report their other top challenges such as “side effects” or “inability or decreased ability to work.”

While many tactics can be used to help patients with adherence, little is known about how clinicians perceive the usefulness of these different approaches. In the survey, clinicians felt the most effective tactics/tools to ensure patient adherence to oral therapies were:

- Calendar and diary sheets (27.5%)
- In-person toxicity and adherence assessments during office and/or infusion visits (24.8%)
- Toxicity and adherence assessments during telehealth appointments (14.6%)

During focus groups, clinicians emphasized the importance of patient education delivered by nurses or pharmacists. They also felt that patients seem to have better adherence when they receive their drug through medically integrated dispensing (MID) as opposed to external

specialty pharmacies. Their observations align with a study that saw improved adherence (as measured by proportion of days covered and medication possession ratio) when patients received their medications from MID vs. external specialty pharmacies<sup>11</sup>.

## COMMUNICATING WITH PATIENTS

In the survey, clinicians were asked to rank the effectiveness of different methods of communicating with patients (e.g., in-person conversation, email, phone call, etc.) about IV/oral combination regimens. Not surprisingly, clinicians overwhelmingly felt that in-person conversations were the most effective way to educate patients, discuss side effects, and assess adherence. Sixty-seven percent (67.3%) of patients also agreed they “highly preferred” in-person visits to discuss issues about their treatment.

When asked about digital communication, clinicians felt that email was one of the least effective methods of communication with patients. In contrast, 35.4 percent of patients “highly preferred” using email to communicate with clinicians about their combination regimens. This may be partially due to a biased sample of patients who felt comfortable filling out an electronic survey. In focus groups, clinicians agreed that email is convenient when communicating about non-urgent matters. However, they were concerned that some patients may use email to communicate about urgent issues such as serious side effects.

In focus groups, several clinicians mentioned they had separate triage call lines for patients who were treated on oral agents. These calls were usually answered by nurses who were experienced with the side effect profiles of many oral agents. Combined with “call us first” campaigns to remind patients to call before visiting the emergency department, these approaches can ensure that patients reach the right people when they have concerns about their treatment.

Focus group participants also emphasized the need for patient education materials in different languages, the trend towards using more telephone and video-based translation services (since the COVID-19 pandemic

normalized the use of these technologies), and the importance of understanding cultural norms when discussing treatment expectations with patients and their care givers.

## TELEHEALTH

In the survey, 46 percent of patients reported they “highly preferred” using telehealth appointments to discuss issues about their IV/oral combination regimens. Approximately 10 percent of clinicians felt that telehealth was one of the most effective strategies for coordinating care, especially when discussing treatment-related adverse events or providing patient education. Among different healthcare professionals, advanced practice providers were the most likely to indicate that telehealth was one of their top effective strategies for coordinating care. While the use of telehealth grew rapidly during the COVID-19 pandemic, focus group participants noted that many patients lack access to broadband internet connections and are unable to participate in video visits. Also, clinicians noted that some patients were requesting to receive too much of their care via telehealth and may not understand the importance of in-person visits for physical exam and functional assessment.

## SUMMARY

This study highlights several challenges and key opportunities associated with managing patients treated with combination IV and oral therapy. This study also provides insights on effective practices clinicians may utilize as they communicate with patients, deliver education, and manage side effects. While patients remained concerned about complex side effects, they are also worried about coordinating travel to medical appointments and experiencing financial burden. As cancer programs evaluate their processes of care, they can tailor strategies to address patient concerns and engage members of the multidisciplinary cancer care team to improve care coordination for patients treated with combination IV and oral therapy.

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Learn more at [acc-cancer.org/IV-Oral-Combo](http://acc-cancer.org/IV-Oral-Combo).

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