Empowering Patients to Disconnect Their Chemotherapy at Home

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The COVID-19 pandemic significantly impacted the health care workforce, with 5% of the nursing workforce—approximately 195,000 registered nurses (RNs)—leaving the workforce due to the pandemic.[1] While 43% of nurses planned to return, 19% indicated that they did not intend to come back, according to data released in 2024 by the Health Resources & Services Administration.[1] The nursing shortage is expected to continue due to limited nurse educators, retirements, and a high turnover rate.[2] With so many nurses leaving the profession, cancer programs have been challenged to fill vacancies. These nursing shortages—and a need to support their existing nurses—have caused many cancer programs to rethink how care is delivered and to identify ways to empower patients to manage certain aspects of their own care, such as administering antibiotics, fluids, and total parenteral nutrition, as well as disconnecting from chemotherapy pumps. Teaching patients and caregivers how to care for their central lines and how to disconnect their chemotherapy can be a win-win for all, fostering a sense of control and autonomy for patients and caregivers and removing tasks from busy providers. At least that has been the experience here at Wilmot Cancer Institute, in Rochester, NY, when we have empowered our patients with cancer to independently disconnect their own chemotherapy at home.

By shifting appropriate self-care tasks to patients, cancer programs, infusion centers, and home care services can reallocate resources to patients with more complex needs.

In 2025, Una Hopkins, DNP, MSN, FNP-BC, NE-BC, RN, FACCC, announced that her ACCC President's Theme would be *Designing Oncology Care to Meet the Needs of a Growing Patient Population*. Wilmot Cancer Institute's initiative to empower patients and caregivers to self-disconnect from certain chemotherapy infusions directly supports this theme by illustrating a practical and scalable solution to workforce shortages by:

- ***Reducing the burden on clinical staff.*** By shifting appropriate self-care tasks to patients, cancer programs, infusion centers, and home care services can reallocate resources to patients with more complex needs.
- ***Enhancing patient autonomy and engagement.*** Patients report feeling more in control and less stressed, which contributes to better satisfaction and outcomes.
- ***Improving care accessibility and efficiency.*** 5-fluorouracil (5-FU) self-disconnection reduces travel and wait times, making care more convenient and cost-effective.
- ***Supporting scalable oncology care models.*** This model demonstrates feasibility and safety, backed by positive survey data.

Our Implementation Story

To explore the feasibility of patient self-disconnection, cancer program and nursing leadership convened a discussion regarding potential options. Next, a multidisciplinary committee was established, including nurses from clinic settings, infusion centers, and home care (the University of Rochester [UR] Home Infusion). Over the course of 8 months, the committee met monthly to evaluate and plan implementation. Several key considerations were identified, including ensuring patient safety and resource availability, as well as securing buy-in from both clinicians and staff.

Education is critical to ensuring that patients can perform tasks independently following a 5-FU self-disconnect teaching session. The decision on whether a patient is a suitable candidate for this self-care task is based on the clinical judgment of the nurse or provider performing the self-disconnect teaching session. This decision often includes an assessment of a caregiver's ability to disconnect the chemo.

Our team created a teaching sheet, including visual instructions and a QR code for the patient to watch a video. Prior to the patient's first self-disconnect teaching session, a referral to a certified home care agency is made. If both provider and patient feel confident and comfortable with the process after the teaching session, the home care referral is canceled. Otherwise, the referral will remain in place. Patients are given resource sheets to troubleshoot the most common issues, including if the IV pump is not functioning appropriately, and other helpful information to facilitate successful 5-FU self-disconnects. Patients receive phone numbers for UR Home Infusion and for the Eclipse hotline to help answer questions related to the eclipse bulb (the balloon-shaped device that delivers IV medication). Patients also receive a yellow chemotherapy bucket with a preprinted mailing label and instructions; when filled, patients return the bucket by mail. **Figure 1** illustrates our 5-FU self-disconnect education process.

Wilmot Cancer Institute operates 10 infusion centers that administer 5-FU. When the patient self-connect initiative was rolled out, the cancer center had 358 patients currently on continuous chemotherapy of 5-FU.

Our Outcomes

Of these 358 patients, 136 received education and were deemed suitable to safely self-disconnect from home. Based on REDCAP survey data, these patients performed this task without any issues. Specifically, 122 surveys were sent to patients, and a total of 55 responses were returned—a 45% response rate. Patient demographics

Figure 1. Patient and Caregiver 5-FU Self-Disconnect Education Process

Provider explains the 5-FU chemotherapy regimen to patients and caregivers. The nurse or provider administers the 5-FU self-disconnect teaching sheet and QR code for the patient to watch the video at home. If the patient does not have a smartphone, the cancer center supplies a tablet for the patient to watch the video at home.

The patient and caregiver are given time to review the 5-FU self-disconnect process; the decision of whether to proceed with self-disconnect teaching is made at the provider's discretion.

FIRST TEACH:
Infusion nurse performs this patient education at the patient's first infusion, using the teaching materials supplied by the cancer program.
Infusion nurse provides teaching materials to patient and caregiver to take home.
Infusion nurse documents in the EHR (electronic health record) that patient education was provided using the SmartPhrase: 5fudisconnect.

SECOND TEACH:
If deemed necessary by the provider, the second teach is perfomed in 1 of 2 ways:
1. Patient and caregiver go to the infusion center and demonstrate the 5-FU self-disconnect.
2. UR home health care provider comes to the patient's home, where the patient and caregiver demonstrate the 5-FU self-disconnect.

At the next clinic visit, infusion nurse does a competency check; additional competency checks are conducted at the discretion of the infusion nurse or UR home health care provider.
Home Infusion Intake, Home Infusion Pharmacy, and/or Home Infusion Nursing document in inbasket, confirming that teach was completed.

Figure 2. REDCAP Survey Findings

Question	Percentage
Gender	
Male	58.50%
Female	41.50%
Race	
American/Indian/Alaskan Native	1.90%
Asian	3.80%
Black/African American	3.80%
White	88.70%
Not reported	1.90%
Do you live alone?	
Yes	7.50%
No	92.50%
How far away do you live from the hospital?	
Less than 15 minutes	20.80%
Less than 30 minutes	47.20%
An hour or more	13.20%
How many times have you self-disconnected yourself from your chemotherapy?	9.9 (average)
Do you have the resources you need if something were to go wrong with your chemo disconnect?	
Yes	96.20%
No	3.80%
What went wrong?	
Nothing went wrong	50%
How comfortable are you with self-disconnecting?	
Very comfortable	77.40%
Somewhat comfortable	18.90%
Not comfortable	3.8%
Do you feel you have less time being connected to your chemotherapy because you can self-disconnect?	
Yes	66.00%
No	34.00%
Would you recommend self-disconnecting to other patients?	
Definitely yes	52.7%
Probably yes	40.4%
Probably no	7.0%
Average age	60.9

and survey responses are shown in **Figure 2**. Patient feedback indicated that 5-FU self-disconnects in the home is feasible and allows patients to take part in their care safely. Open-ended comments included:

- [I felt] "enthusiastic and positive about the experience."
- [I] "felt the step-by-step instructions were very helpful, along with having a person who can help if needed."
- "[My] husband does [the] disconnect, and it's very easy."
- "[There are fewer] appointments and [it's] easier than having someone come to the house."
- "[It's a] better experience than going to a facility."
- "It was a learning curve, but it is easy."
- [I] "felt empowered having some control [over] the disease, and it is less stressful."

For our team at Wilmot Cancer Institute, empowering patients to self-disconnect from their chemotherapy infusions represents a significant innovation in patient care. This approach enhances patient competence by giving them the skills and confidence to manage their treatment, fostering a greater sense of control over their health. It also builds trusting relationships between patients and health care providers, as patients are given the tools and support they need to take an active role in their care. The method promotes patient autonomy, allowing them to direct their care and make decisions that best suit their lifestyles and preferences. Specifically, this initiative:

- ***Improved patient satisfaction***. Patients reported feeling more empowered and less stressed, contributing to improved overall satisfaction with their care.
- ***Increased convenience***. Patients can disconnect at home and on their own schedule, reducing the need for the travel and wait times associated with clinic visits.
- ***Reduced health care costs***. These patient self-disconnects minimized the need for home care nurses, reduced the workload of infusion nurses, and helped to streamline infusion center operations, leading to cost savings.
- ***Better resource allocation***. Patient self-disconnect also freed up health care resources, allowing these resources to be utilized more efficiently for other patients in need. OI

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