

**Addressing Barriers to Chemotherapy Treatment Adherence in a Rural Outpatient
Oncology Center: Executive Summary**

Whitney Hinrichs

College of Nursing, East Carolina University

Doctor of Nursing Practice

Dr. Terri Isaacs

5-1-2026

Addressing Barriers to Chemotherapy Treatment Adherence in a Rural Outpatient Oncology Center: Executive Summary

Main Findings

- 27 barriers surveys and resource brochures were given out of 53 eligible patients: 51% staff adherence rate
- 14 patients with identified barriers, some more than one: predominantly financial and psychosocial
- The staff followed up with six out of 14 patients, reflecting staff overwhelm with the workflow
- Nine patients with psychosocial barriers were not addressed, likely due to staff changes
- 19 out of 27 screened patients received an evaluation survey evaluating patient satisfaction with resource services provided
- 17 out of 19 reported receiving at least some resource education, and nine reported utilizing the education provided
- Average patient satisfaction score of 7.5 out of 10 for services provided

Background

Addressing barriers to chemotherapy treatment adherence is important to ensure good outcomes for patients diagnosed with cancer. Literature shows that patients in rural areas face barriers such as transportation, psychosocial, and financial issues. Oncology patients are disproportionately affected by transportation barriers, which increase mortality risk (Jiang et al., 2021). Psychosocial issues such as fear of burdening family members could also hinder treatment adherence (Saita et al., 2023). Financial, psychosocial, and socioeconomic barriers have been

found to contribute to low treatment adherence rates, with rates as low as 50% (Byrne et al., 2023).

Purpose

The project site is located in rural eastern North Carolina and provides outpatient chemotherapy and immunotherapy treatments for residents with a cancer diagnosis. There was no formal process for identifying barriers to care before treatment initiation. Early identification of barriers could affect the trajectory toward treatment success or failure. The purpose of this quality improvement initiative was to implement a standardized screening tool to proactively identify barriers to care, improve patient-to-staff communication, increase patient satisfaction, and increase timely access to resources.

Methodology

This was a quality improvement initiative that spanned over 12 weeks. A structured Plan-Do-Study-Act (PDSA) framework was utilized, updated, and formally reviewed with the project champion every two weeks. The location was a rural outpatient oncology clinic located in eastern North Carolina. The project team included a family nurse practitioner (FNP), a physician assistant (PA), staff nurses in the infusion area, an oral chemotherapy nurse, a financial coordinator, and two resource coordinators. Staff members were educated weekly and individually, and provided with a workflow algorithm. The patient population included adults with a cancer diagnosis getting consent for a new chemotherapy treatment. There were 53 eligible patients, of whom 27 participated.

The intervention consisted of a barriers survey administered at the time of consent for treatment, including questions related to transportation, psychosocial, and financial barriers to care. Along with a barriers survey, a resource pamphlet was administered that included local resources and contact information for the office and staff. Initially, the nurse practitioner or physician assistant doing the consent administered the survey; however, due to adherence issues identified in a PDSA cycle, it was changed so that nursing staff administered it when rooming the patient for the consent. Adherence to survey and resource pamphlet administration increased at the next PDSA cycle. Additionally, a survey was administered to patients during treatment by either infusion nurses or the oral chemotherapy nurse to assess the efficacy of the support provided.

After the barriers survey and resource pamphlet administration, the provider who completed the consent was responsible for reviewing the barriers survey and directing it to the correct staff member. Surveys were organized into bins in the office, and resource and financial coordinators were responsible for reviewing their bin contents and following up with the patient by phone. Psychosocial barriers were to be addressed by the provider. If any intervention was completed, it would be recorded on the survey and placed in the intervention-completed bin.

Process measures included staff adherence to screening and following up with patients. Outcome measures included the identification of barriers, resource utilization, and patient satisfaction scores and feedback. Data such as screening completion rates, types of barriers identified, staff-reported follow-up, and patient feedback from evaluation surveys were collected. Data were reviewed weekly, and staff members were met with individually and provided with the data and instructions for improvement.

Findings

27 of 53 eligible patients received a barriers survey and a resource pamphlet, yielding a staff adherence rate of 51%. 14 barriers were present in the 27 people screened. In total, one potential transportation barrier, seven potential financial barriers, and nine potential psychological barriers were identified. Three patients had a positive Patient Health Questionnaire-2 (PHQ-2) score. The PHQ-2 is a two-item screening tool used to identify depression (Kroenke et al., 2003). If it is positive, patients should be administered the Patient Health Questionnaire-9 (PHQ-9), which includes additional questions to assess depression severity (Kroenke et al., 2001). Six patients with barriers were followed up with by staff. The transportation barrier was addressed by resource coordinators. The financial coordinator followed up with five patients with financial concerns. No interventions or follow-up were completed for the nine potential psychosocial concerns.

19 of 27 patients completed an evaluation survey during treatment, yielding a staff adherence rate of 70%. 16 patients reported receiving education about available transportation and mental health services. 15 reported receiving education on financial resources. Eight patients reported using the resources provided to them. The average patient satisfaction score was 7.5 out of 10.

Strengths and Limitations

A major strength of this project is the successful creation and implementation of a standardized tool to screen patients for barriers to care. The project focused on an underserved, rural population. The intervention provided was also low-cost and practical. Individual experience was considered through satisfaction scores, keeping the project patient-centered.

Limitations include a low staff adherence rate of 51% for the barriers survey and resource pamphlet administration, and staff-led follow-up. Psychosocial barriers were widely unaddressed, highlighting gaps in mental health care. Adherence could be improved for future projects by incorporating the electronic health record (EHR). Future improvements include integrating the EHR to increase staff accountability through documentation and monitoring.

Implications

This quality improvement initiative demonstrated the need for standardized staff workflows and increased staff accountability. Using the EHR to track surveys administered, follow-ups completed, and monthly monitoring results at a staff meeting could increase accountability and awareness. The high report of resource education and the low report of resource utilization highlight the limitations of passive care coordination and the need for active care coordination. Low psychosocial interventions indicate a need for reform in the process of addressing mental health concerns in practice. Positive PHQ-2 and PHQ-9 results should be included in the EHR, and patients should be routinely followed up with by providers at subsequent appointments after intervention.

Conclusion

The purpose of this project was to develop a method to identify treatment barriers for patients initiating treatment after a cancer diagnosis at a rural outpatient oncology center and to provide resources in a timely manner. 14 out of 27 patients screened reported barriers to treatment, and 6 of those patients were followed up with by staff. Results suggest a need for defined staff roles and workflows, increased staff accountability, and addressing gaps in follow-up care.

References

- Byrne, J. (2023). Efforts to improve oral chemotherapy adherence target multilevel barriers. *HEM/ONC Today*, 24(7), 1–11. <https://www.proquest.com/scholarly-journals/efforts-improve-oral-chemotherapy-adherence/docview/2831430215/se-2>
- Jiang, C., Deng, L., Wang, Q., Perimbeti, S., & Han, X. (2021). Transportation barriers to health care and mortality risk among U.S. adults with a history of cancer. *Journal of Clinical Oncology*, 39(28), 121. https://doi.org/10.1200/JCO.2020.39.28_SUPPL.121
- Kroenke, K., Spitzer, R.L., & Williams, J.B.W. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine*, 16(9), 606-613. <https://doi.org/10.1046/j.1525-1497.2001.016009606.x>
- Kroenke, K., Spitzer, R.L., & Williams, J.B.W. (2003). The patient health questionnaire-2: Validity of a two-item depression screener. *Medical Care*, 41(11), 1284-1292. <https://doi.org/10.1097/01.MLR.0000093487.78664.3C>
- Saita, E., Acquati, C., Molgora, S., Vagnini, D., Piccoli, E. M., Valenti, F., Stratta, G., & Grassi, M. M. (2023). Locally advanced breast cancer (LABC) and delayed care: A qualitative analysis of psychosocial factors. *Psychology, Health & Medicine*, 28(2), 408–418. <https://doi.org/10.1080/13548506.2022.2073379>