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Assessing Oral Chemotherapy Knowledge Among Nurses in the Rural Hospital Setting: A Research Initiative

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Currently about 30-50% of the chemotherapy and biotherapy drugs being developed are for oral use. Oral chemotherapy or oral anticancer (OAC) medications are part of the cancer regimen for many patients that reside in rural areas. Oral chemotherapy and biotherapy agents benefit patients due to the ease and simplicity of administration. The review of literature on oral anticancer medications and the term oral chemotherapy focus primarily on patient adherence, the use of telehealth communications in the education, monitoring, and compliance of patients but no evidence was discovered addressing rural and non-oncology nurse encounters with this patient population. This gap is seen by the lack of literature found about the rural nurses' oral anticancer medication experiences and needs further exploration to ensure patient safety and positive patient outcomes. There was no literature found on the OAC education or practice issues regarding the rural nurses.

As oral anticancer medication use increases it is being seen more frequently in the rural population. The negative concern is the absolute necessity for maintaining therapeutic drug levels and the potential for life threatening immune-related adverse events (irAGs). Therapeutic interventions will be negated if irAGs are not recognized. OAC regimens can be complicated and stringent for the patient and missing doses can lower the therapeutic response and cause further disease progression. Therapeutic levels will also be affected negatively if drug dosages and schedules are not maintained, as is often the case for hospitalization with unrelated non-oncology admissions in this patient population. The purpose of this research assesses the knowledge level about oral anticancer medications and the need for oral anticancer education in the mostly non-oncology nursing staff of rural hospital settings who do not routinely work with oncology patients.

The research design is a quantitative study using a questionnaire to identify nurses' familiarity with oral chemotherapy medications, timeliness, adverse reactions, safe handling, and drug-to-drug interactions. The results once disseminated to the rural hospitals' nurse educators, managers and staff will aid in quality improvement and identifying gaps to be able to provide needed policies or protocols concerning oral chemotherapy drug practices. It is expected that the findings reveal nurse sensitive indicators that create positive patient safety outcomes.

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Keywords:

Oral Anticancer Medications, Oral Chemotherapy and RuraL Nurse

References:

Hsaio, G.Y., Chen, I.J., Yu, S., Wei, I.Y., Fang, Y.Y., & Tang, F.-I. (2010). Nurses' knowledge of high-alert medications: instrument development and validation. *Journal of Advanced Nursing* 66(1), 177-190.doi: 10.1111/j.1365-2648.2009.05164.x Leifeste, K. (2014). Oral antineoplastics in nononcology units: Moving toward safer ordering, administration, and handling. *Clinical Journal of Oncology Nursing*, 18, 411–413. doi:10.1188/14.CJON.411-413

Lefebvre, K., & Felice, T. (2016). Nursing Application of Oral Chemotherapy Safety Standards: An Informal Survey. *Clinical Journal of Oncology Nursing, 20*(3), 258-262. doi:10.1188/16.cjon.258-262

Lode, A. E., Holle, L. N., Josh; Minjock, Mike; Egerton, N., Lefebvre, K. R., Michael; Deremer, D., (2018). Collaboration Leads to Oral Chemotherapy Education. *Journal of the Advanced Practitioner in Oncology*, Nov/Dec2018; 9(7): 755-756. 2p.

May, P., Figgins, B (2016). Oral anticancer therapy: a comprehensive assessment of patient perceptions and challenges. *J Community Support Oncol*: 112–116 Rudnitzki, T., & McMahon, D. (2015). Oral agents for cancer: Safety challenges and recommendations. Clinical Journal of Oncology Nursing, 19(Suppl.), 41–46. doi:10.1188/15.S1.CJON.41-46

Sullivan, C., Dalby, C., Gross, A., Chesnulevich, K., Lilienfeld, C., Hooper, C., . . . Kochanek, T. (2016). Oral Chemotherapy Education: Using Innovation to Ensure Broad Access. *Clinical Journal of Oncology Nursing, 20*(2), 126-128. doi:10.1188/16.cjon.126-128

Abstract Summary:

As more oral cancer agents are being developed and prescribed how ready is the rural nurse to deal with the increasing patient population on oral chemotherapy. This session will provide answers and a look at some nurse sensitive indicators to creating positive patient outcomes.

Content Outline:

- 1. Introduction
- 1. Oral chemotherapy prescription is on the rise.
- How ready and prepared are rural nurses to care for an increasing patient population on oral anticancer agents (oral chemotherapy) and the care involved to prevent complications and promote patient safety
 Body
- 1. Rural nurses are taking care of increasing numbers of patients on oral chemotherapy
- 2. What do the rural nurse know about these regimens/treatments

- 3. a) Assessment: Survey Questionnaire
- 2. Analysis of rural nurse assessment
- 3. a) What were the findings? The results (nurse sensitive indicators).
- b) Where do we go from here? The recommendations (Policy/Protocol). III. Conclusion
- 1. Knowledge deficits were seen
- Gaps exist in training and education (quality improvement opportunities)
 More research needed

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Author Summary: Sharon Spencer is a nurse educator at the University of Alabama Huntsville. She has an MSN in Healthcare systems management from Loyola University of New Orleans, LA. She holds a doctoral degree in nursing admin/leadership from UAH. She was awarded the Alabama League of Nursing Award of Excellence in 2018. She has done several poster/oral presentations on clinical practice, leadership, mentoring, diversity and currently rural nursing issues surrounding oral chemotherapy safety.

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