QUALITY IMPROVEMENT

Women With Gynecologic Cancers: Screening for Substance Use Disorders Is Key

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Abstract

Substance use disorders (SUDs) among women with gynecologic cancers pose challenges to treatment adherence, patient well-being, morbidity, and mortality. Despite the prevalence of SUDs, routine screening practices have not been widely adopted. This quality improvement project implemented the Revised Opioid Risk Tool (ORT-OUD) to screen for SUDs among gynecologic oncology patients. The aims were to provide a referral to addiction psychiatry in a minimum of 80% of patients who screened as high risk and demonstrate the feasibility of ORT-OUD implementation in clinical practice, with at least 75% of advanced practice providers (APPs) reporting it as feasible. The ORT-OUD was offered to all patients aged 18 years or older, consented, and were on the APPs' schedules during the project implementation period (3 months). Patients completed the ORT-OUD privately, and APPs reviewed and scored the tool. Patients with scores of 3 or higher were offered a referral to addiction psychiatry. Advanced practice providers were then given a survey to assess their perception of the project's feasibility. Descriptive statistics were used to track referral rates and APP perceptions. Of 134 patients screened, 9.7% were identified as high risk for SUDs. Of those patients, 76.9% accepted a referral to addiction psychiatry. One hundred percent of APPs reported the ORT-OUD implementation as feasible. Challenges identified included time needed to explain the screening tool and patients' perceptions of the screening tool questions. This project successfully identified a proportion of gynecologic oncology patients at risk for SUDs and facilitated access to specialized care. Challenges in the screening process highlight the importance of patient education and communication strategies.

Substance use disorders (SUDs) have garnered nationwide attention amid an ongoing opioid epidemic. It was previously believed that SUDs did not affect people with cancer to the same extent as the general population (3.2%); however, recent studies show SUDs occur at the same rate, if not more, than in the general population (Coffa & Snyder, 2019; Teulings & Broglio, 2020; Yusufov et al., 2019). Up to one in five cancer patients are at risk for an SUD (Carmichael et al., 2016).

Opioids are commonly used to manage cancer-related pain, particularly in advanced stages where the prevalence of pain is more than 60% (Snijders et al., 2023; Yusufov et al., 2019). While opioids may be effective at managing pain, they come with risks of misuse, diversion, overdose, and other health consequences (Substance Abuse and Mental Health Services Administration, 2015; Yusufov et al., 2019). Unfortunately, pain is commonly experienced among people with cancer and can impact their performance status during treatment and their overall quality of life (Snijders et al., 2023). Gynecologic oncology advanced practice providers (APPs) are uniquely positioned to offer both medical and post-operative care, and as such, have numerous indications for opioid prescribing, including post-operative pain, cancer-related pain, and end-of-life care (Ramzan et al., 2018). Despite a 31% nationwide decrease in opioid prescribing between 2008 and 2018, women aged 65 years and over continue to have some of the highest rates of opioid prescribing, especially compared to their male counterparts (Goetz et al., 2021). Furthermore, while men are more likely to die from opioid-related overdose, women are at greater risk for adverse events (Farkouh et al., 2020). Women have a two-fold greater risk for an adverse drug reaction among all drug classes. This can be attributed to sex differences in drug absorption, bioavailability, distribution, metabolism, and excretion (Farkouh et al., 2020). When given a standard drug dose, women were reported to have higher blood concentrations of that drug with longer elimination times (Farkouh et al., 2020). It is therefore imperative that gynecologic oncology practices implement screening tools to prevent SUD-related morbidity and mortality in women with cancer.

Routine screening with a validated tool is known to increase the rate of identifying people with SUDs and those at risk for SUDs (Choflet et al., 2020; Teulings & Broglio, 2020). Early identification allows providers to offer appropriate pain management and referrals to addiction psychiatry when indicated. Screening tools not only improve the health and safety of patients but also decrease health-care costs by minimizing the need for emergency visits and lengthy hospital stays (Aldridge et al., 2017; Choflet et al., 2020). Undiagnosed and untreated SUDs are estimated to cost the health-care system over $120 billion annually in the United States alone (McLellan, 2017). The National Comprehensive Cancer Network (NCCN) guidelines recommend routine screening for SUD, and the Society for Gynecologic Oncology (SGO) supports the Opioid Risk Tool for screening (Lefkowits & Duska, 2017).

Substance use disorders are chronic illnesses that need to be monitored, treated, and managed over long periods of time by a trained specialist (McLellan, 2017). The risks associated with SUDs in the oncology setting are well documented. Patients with cancer are at an increased risk of developing an SUD due to a variety of factors, including the need to cope with the stress and pain associated with a cancer diagnosis (Aldridge et al., 2017; Yusufov et al., 2019). Comorbid SUD can impede treatment, and increase the risk of infections, poor medication adherence, diversion, overdose, and even death (Carmichael et al., 2016; Choflet et al., 2020; Yusufov et al., 2019). A validated screening tool for SUD in the gynecologic oncology population can help identify at-risk patients and decrease SUD-related morbidity and mortality (Carmichael et al., 2016; Dannenberg et al., 2022; Barclay et al., 2014).

The Revised Opioid Risk Tool (ORT-OUD) is a validated screening tool that identifies patients with SUD risk factors and has been successfully used in people with cancer and those being prescribed opioids for chronic pain (Table 1; Carmichael et al., 2016; Dannenberg et al., 2022; Barclay et al., 2014). The ORT-OUD can be self-administered by patients, completed in under 1 minute, and readily be incorporated into the nurse or provider workflow (Teulings & Broglio, 2020).

This project focused on a Northeastern United States gynecologic oncology practice that did not have a screening tool in place for SUDs. The practice uses an online database called Internet System for Tracking Over-Prescribing (I-STOP) to track controlled substance prescriptions. I-STOP allows providers to access a patient's prescription history and review for potential overprescribing, and is a hard stop prior to prescribing an opioid. A review of 20 patients prescribed opioids in the practice revealed that none were screened for an SUD. The broader University associated with this practice has an addiction psychiatry clinic staffed by specialists trained in SUD assessment, management, and pain control. Therefore, a quality improvement (QI) project that both implements an SUD screening tool in the practice and manages a referral process to addiction medicine was paramount.

Table 1. Revised Opioid Risk Tool (ORT-OUD)		
Mark each box that applies	Yes	No
Family history of substance abuse		
Alcohol	1	O
Illegal drugs	1	O
Rx drugs	1	O
Personal history of substance abuse		
Alcohol	1	O
Illegal drugs	1	O
Rx drugs	1	O
Age between 16–45 years	1	O
Psychological disease		
ADD, OCD, bipolar, schizophrenia	1	O
Depression	1	O
Scoring totals		

Note. Adapted from Cheatle et al. (2019). ADD = attention deficit disorder; OCD = obsessive-compulsive disorder.

METHODS

Design and Setting

This QI project was conducted by a Doctor of Nursing Practice (DNP) student from October 2023 to December 2023 in an outpatient gynecologic oncology practice in upstate New York. The department sees an average of 40 patients per day, serving people with gynecologic cancers or precancerous conditions, including ovarian, cervical, endometrial, vulvar, fallopian tube, and vaginal cancer. During the project, 134 patients were screened for SUD risks using the ORT-OUD. Institutional review board approval was not required.

Aims, Intervention, and Instruments

The purpose of this QI project was to implement a validated screening tool into a gynecologic oncology practice to identify those at risk for an SUD and to provide a referral to addiction psychiatry. The specific aims were to (1) report that APPs placed a referral to treatment in a minimum of 80% of patients who screened positive on the ORT-OUD via the electronic medical record within 2 weeks of a positive screen, and (2) assess the feasibility of ORT-OUD implementation in clinical practice, with at least 75% of participating APPs reporting the process as feasible.

During the 3-month project implementation period, the ORT-OUD was offered to all patients in the offices of the five APPs who participated, provided they were over the age of 18 and consented to completing the assessment. A brief in-person presentation was provided to office staff detailing the project goals, ORT-OUD screening process, documentation protocol, and referral process via the electronic medical record. The ORT-OUD was given to patients as a paper handout at check-in by a patient care technician, with the patient's electronic medical record number for identification. Patients then privately completed the ORT-OUD in the exam rooms prior to the APP entering. The APP then reviewed and scored the ORT-OUD and documented the patient's score in the electronic medical record within their provider note. The APP offered a referral to the affiliated addiction psychiatry group to any patient who screened high risk (score ≥ 3). The ORT-OUD designates a score of three or higher as high risk for opioid misuse, as patients with scores at or above three are more likely to engage in aberrant drug-related behaviors (Cheatle et al., 2019). Referrals were placed through the electronic medical record via an existing inter-organization link listed under "SUD." Following the visit, the APP removed the completed ORT-OUD from the exam room and placed it in a secure cabinet in the DNP student's office.

Table 2. ORT-OUD Score Frequency

ORT-OUD Score	n	%
0	60	44.8
1	34	25.4
2	27	20.1
3	**7**	**5.2**
4	**2**	**1.5**
5	**3**	**2.2**
6	**1**	**0.7**

Note. Bolded values indicate positive screens on the ORT-OUD; The possible range of scores is 0 to 9, with higher scores indicating higher risk of OUD.

Post-implementation data were collected through a retrospective chart review of the patient's electronic medical records. Patient information was deidentified, and referral rates were recorded in an Excel spreadsheet on a password-protected computer. Descriptive statistics were used to evaluate the first aim of the project. Following this, the paper surveys were properly disposed of in the office receptacle for protected health information. The APP post-implementation questionnaire was then provided to all five APPs after completion of the ORT-OUD implementation. The APPs anonymously completed a two-item Likert scale survey to assess their perception of the project's feasibility into practice and which area was most challenging to implement (screening, documenting, or referring). The surveys were returned to a secure office cabinet for review. Responses were recorded anonymously in the Excel spreadsheet on the password-protected computer. Descriptive statistics were again utilized to evaluate APP assessment of project feasibility (second aim).

RESULTS

From October to December 2023, 134 patients were screened. Patient ages ranged from 19 to 89 years old, and types of cancers included endometrial, cervical, ovarian, vulvar, and vaginal cancer. ORT-OUD scores ranged from 0 to 6. The average score was 1.5, and the median score was 1 (Table 2).

For the first project aim, out of the 134 patients screened, 13 screened positive (9.7%) with a score of ≥ 3, indicating high risk for an SUD (Table 2). Out of the 13 patients with a referral indicated, 10 (76.9%) accepted the referral and three (23.1%) declined. 100% of the referrals were placed within the EMR system within 2 weeks of screening.

For the second project aim, all five (100%) APPs strongly agreed integrating ORT-OUD into practice is feasible. An open-ended item asked APPs to offer the most challenging area (screening, documenting, or referral process). Two (40%) APPs said there were no challenging areas and three (60%) APPs reported that the screening process was the most challenging. Reasons provided for screening challenges were time to explain the purpose of the screening tool and patients' perceptions of the questions.

DISCUSSION

This QI project successfully identified a proportion of gynecologic oncology patients at risk for opioid use disorder (OUD), underscoring the importance of routine screening for SUDs among people with gynecologic cancers and precancerous conditions. While there are limited data on screening rates in the general population, it is estimated that 3.2% of the US population ages 12 and older have an OUD (Coffa & Snyder, 2019). One study evaluated Opioid Risk Tool screening rates in patients prescribed opioid medications through a pharmacy-based program called the ONE program (Strand et al., 2022). The results of this study indicated a high-risk score in 3.9% of the patients screened, lower than the 9.7% high risk rate found in our practice (Strand et al., 2022). This further highlights the need for continued widespread screening in gynecologic oncology. Furthermore, the high acceptance rate of referrals to addiction psychiatry among patients with positive screens is a promising indicator of the effectiveness of the intervention in facilitating access to specialized care.

Limitations

Despite the overall success of the intervention, challenges were encountered during implementation, particularly related to the screening process. Some APPs reported difficulties in explaining the purpose of the screening tool to patients and addressing patient perceptions of the questions. These challenges underscore the

importance of patient education and communication strategies to enhance the acceptability and effectiveness of SUD screening initiatives. One suggestion is to provide patients with an informative pamphlet or brief video at check-in to enhance patient understanding of the purpose of the screening tool and how to answer the questions appropriately.

CONCLUSION

The findings of this project have several implications for clinical practice in gynecologic oncology settings. Firstly, routine screening for SUDs, particularly using validated tools such as the ORT-OUD, should be integrated into oncology practices nationwide. Women in particular may be at higher risk for adverse events related to substance use, and gynecologic oncology providers need to be aware of this. This proactive approach enables early identification of patients at risk for SUDs, allowing for timely intervention and support with the goal of improving patient safety and outcomes. Secondly, the successful implementation of the ORT-OUD and referral process highlights the importance of interdisciplinary collaboration in addressing SUDs among gynecologic oncology patients. By leveraging existing resources and expertise within addiction psychiatry, oncology practices can enhance the comprehensive care and support provided to patients with SUDs and risk factors. Fortunately, addiction medicine clinics are becoming more widespread, thus improving community access.

Moving forward, further research is needed to explore the long-term impact of SUD screening on patient outcomes, including pain management, treatment adherence, and quality of life. Future initiatives should investigate strategies to optimize the SUD screening process, address patient barriers, and enhance the integration of addiction psychiatry services into oncology care. ●

Disclosure

The authors have no conflicts of interest to disclose.

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