

Case Report

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Abstract

Background. Nonmedical opioid use (NMOU) has been associated with opioid overdose deaths. This pattern of misuse can be seen in those using opioids for cancer-associated pain. We present a case that highlights the complexities associated with NMOU and a patient's care at the end of life.

Cases Description. A patient with a metastatic solid tumor malignancy along with co-occurring history of polysubstance abuse was admitted to an acute palliative and supportive care unit (APSCU). The patient demonstrated behaviors concerning for NMOU during her hospital stay but had increased symptom expression concerning for worsening dyspnea while in the APSCU. Unfortunately, she used home opioids, which was unknown to the team at the time along with requesting for higher doses of opioids that were being prescribed. This caused a worsening respiratory status and affected her care. Using an interdisciplinary approach, the providers managed her symptoms and discharged her safely to see her child.

Conclusion. This highlights the complexities of the alleviation of suffering in those with NMOU. It is important to continue to manage NMOU at the end of life due to its effects on quality of life. A multimodal approach is recommended to identify and care for these patients.

Introduction

The opioid epidemic has changed the course of medicine in the United States, with current estimates of more than 760,000 lives lost from drug-related deaths between 1999 and 2021 (Brent and Weiss 2022; Opioid Crisis Statistics 2021). Nonmedical opioid use (NMOU) occurs when patients use opioids in manners other than prescribed, and it has been associated with overdose deaths during the opioid epidemic (Bohnert et al. 2011; Yennurajalingam et al. 2021). Caring for those with NMOU is a significant challenge for clinicians given the balance that must be played in the relief of suffering and prevention of patient self-harm (Arthur et al. 2021; Yennurajalingam et al. 2021). This challenge is particularly evident in the care of patients with cancer-associated pain (Amaram-Davila et al. 2021).

Opioids are the mainstay of managing cancer-associated pain, which is present in 49% to 57% of those with curable cancers and 56% to 75% of those with advanced malignancies (Caraceni et al. 2012; Dalal and Bruera 2019; Hui and Bruera 2014). Recent studies demonstrate that a considerable proportion of patients receiving chronic opioid therapy in a supportive and palliative medicine clinic display behaviors concerning for NMOU (Arthur et al. 2021). One out of every 4 ambulatory patients receiving opioids for cancer pain had an abnormal urine drug screen result concerning for NMOU (Arthur et al. 2021). While there have been published management strategies to aid practitioners in providing opioids to patients with NMOU behaviors, the care still remains complex especially when these patients approach the end of life (Amaram-Davila et al. 2020, 2021; Arthur et al. 2018; Case et al. 2020; Reddy and de la Cruz 2019). We present the case of a patient who had NMOU behavior and the challenges faced by the care team in caring for her in an acute palliative and supportive care unit (APSCU) at the end of life.

The patient

This was a female in her 30's with a past medical history of metastatic solid tumor of the right paraspinal region with involvement of the lungs, who also had a co-occurring history of polysubstance abuse with marijuana, methamphetamines, cocaine, and heroin. Three weeks prior to this presentation, she had an accidental opioid overdose when she took her home opioid pills more than was prescribed, resulting in a transient emergency room visit. Patient had never received drug rehabilitation services before.

During this hospital visit, she presented with worsening dyspnea and admitted with worsening metastatic disease with a new total opacification of the left lung seen on imaging. The supportive care service was consulted to assist with symptom management and goals of care discussions. In the course of her hospitalization, the supportive care team noticed behaviors concerning for NMOU. The patient made frequent requests for specific opioids and had an obsessive preference for the intravenous route.

After goals of care discussions, she elected to pursue a comfort-based approach to care and was transferred to the APSCU. The APSCU team took the opportunity to discuss what her hopes and wishes were at the end of life while her significant other was present. The patient expressed her wish to see her young child before she died. Unfortunately, due to visitor restrictions from the COVID-19 pandemic and age limitations, her child was not allowed to come to the hospital. The next morning, the patient reported worsening dyspnea and requested for an increase in her opioid dose to help with her symptoms although she did not have very perceptible signs to warrant such opioid doses. Some of the team members were concerned about this request due to the incongruity of her stated symptoms, her behavior, and her physical exam, coupled with her background history of NMOU. As her opioid doses were increased, the patient's drowsiness worsened throughout the day. Her breaths became noticeably shallower, and her respiratory rate had decreased concerning for possible opioid-induced sedation.

In view of these new findings, the patient's opioid dose was subsequently reduced. Several hours later, she became more alert and awake. By the next day, she was eating and had a full conversation without any distress from pain or dyspnea. The team later discovered that her excessive somnolence was due to the hazardous combination of the unauthorized and undisclosed use of her home opioids in addition to the opioids she was receiving in the hospital. In a compassionate manner, an interdisciplinary team including our pharmacist, chaplain, physician, and counselor met with the patient to discuss their concerns, provide ample opioid education, and deliver intensive counseling using some motivational interviewing tips. They reiterated the goal to carefully manage her symptoms in order to ensure that she was discharged safely to an inpatient palliative care unit so she could be with her child. After her symptoms were adequately managed by the APSCU team, the patient was transferred to an inpatient hospice unit. She was able to meet with her young child and other family members. She passed away one week after discharge.

Discussion

This case highlights the many complexities that exist in the care of patients with NMOU at the end of life. These challenges often involve the existence of conflicting ethical responsibilities of practitioners in the alleviation of suffering. The clinical team was faced with the dilemma of managing dyspnea and pain at the end of life in a patient who displayed NMOU behaviors during her hospitalization. Her desire to alleviate the psychological craving for opioids likely prompted her to request for more opioids from the medical team while continuing to take her own supply of opioids, which she had hidden from the team. The medical providers regrettably escalated her opioid dose due to her inaccurate report. This led to harm by causing opioid-related respiratory depression. Ultimately, by decreasing the dose of opioids, her condition improved, and she

was able to achieve her last wish. She saw and held her 5-year-old child before she died.

Our group has previously reported that a considerable number of patients receiving chronic opioid therapy for cancer-associated pain are at risk for NMOU (Arthur *et al.* 2021). This finding has been corroborated in other studies. In an integrative review, Carmichael *et al.* (2016) found that 1 in 5 cancer patients receiving opioids may be at risk for NMOU. In a survey of US hospices, 43% reported missing opioid medications within 90 days of the survey itself and 31% reported at least one confirmed case of drug diversion (Cagle *et al.* 2020). This suggests that NMOU is not uncommon among patients nearing the end of life.

Managing NMOU at the end of life is vital to the provision of excellent care for patients with cancer pain. Some would argue that if patients are close to the end of life, there might not be the need to manage the NMOU behaviors and substance use disorders (SUD). There are many consequences that stem from NMOU and SUD at the end of life including the following: decreased quality of life, increased drug toxicities and interactions, impaired social/physical functioning due to the need to obtain a substance or medication, and conflict with the clinical team (Gabbard *et al.* 2019; Passik and Theobald 2000). It should also be noted that symptoms do not typically occur in isolation, and many of those with pain also have comorbid depression, anxiety, and personality disorders. These conditions will hinder optimal pain and symptom control (Kirsh 2010).

Several approaches have been proposed to help identify, monitor, and manage the care of patients with NMOU and SUD (Amaram-Davila *et al.* 2021; Arthur *et al.* 2018). These include universal screening of patients using assessment tools such as the Cut down, Annoyed, Guilty, Eye-opener questionnaire or the Screener and Opioid Assessment for Patients with Pain and prescription monitoring databases (Amaram-Davila *et al.* 2021; Arthur *et al.* 2021; Tang *et al.* 2021; Tang and Reddy, 2022). Best practices also recommend periodic use of urine drug screens to monitor patients receiving chronic opioid therapy (Amaram-Davila *et al.* 2021; Tang *et al.* 2021). Our team has described a novel interdisciplinary team approach to care for patients with NMOU and SUD (Arthur *et al.* 2018). In a supportive, patient-centered, and compassionate fashion, the medical team communicates to patients their concerns regarding NMOU and SUD behaviors, openly discusses patterns of misuse, and establishes important boundaries and limitations while reassuring the patient of their desire to help manage their pain and other uncontrolled symptoms (Arthur *et al.* 2018). A similar interdisciplinary team approach has been suggested in the hospice setting to help manage those with NMOU and SUD (Gabbard *et al.* 2019).

Another reason to adhere to measures that promote safe opioid use is the increased involvement of family members and caregivers in the care of patients near the end of life. This leads to more access and exposure of family members and caregivers to substantial amounts of opioids, which potentially increases the risk for NMOU, morbidity, and even fatal overdose. Studies have shown that over 50% of individuals with NMOU freely obtain prescription opioids from a friend or relative (Lipari and Hughes 2013). In the absence of clear recommendations regarding indiscriminate use of opioids near the end of life, we propose that providers should still implement the necessary risk mitigation strategies when prescribing opioids while being sensitive to the unique needs of this vulnerable patient population (Arthur and Bruera 2019).

Conclusion

Opioid therapy for patients near the end of life who display NMOU behaviors presents many unique challenges to health care providers. A cautious and comprehensive approach is recommended to help identify and care for these patients. Further research is needed to better identify more effective methods to help care for patients near the end of life with NMOU and SUD.

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Conflicts of interest. None declared.

References

- Amaram-Davila J, Mallipeddi T and Reddy A (2020) Opioid prescribing with take-home naloxone: Rationale and recommendations. *Current Anesthesiology Reports* **10**(4), 428–435. doi:10.1007/s40140-020-00419-0
- Amaram-Davila JS, Arthur J, Reddy A, et al. (2021) Managing nonmedical opioid use among patients with cancer pain during the COVID-19 pandemic using the CHAT model and telehealth. *Journal of Pain and Symptom Management* **62**(1), 192–196. doi:10.1016/j.jpainsymman.2021.01.005
- Arthur J and Bruera E (2019) Balancing opioid analgesia with the risk of non-medical opioid use in patients with cancer. *Nature Reviews Clinical Oncology* **16**(4), 213–226. doi:10.1038/s41571-018-0143-7
- Arthur J, Edwards T, Reddy S, et al. (2018) Outcomes of a specialized interdisciplinary approach for patients with cancer with aberrant opioid-related behavior. *The Oncologist* **23**(2), 263–270. doi:10.1634/theoncologist.2017-0248
- Arthur JA, Tang M, Lu Z, et al. (2021) Random urine drug testing among patients receiving opioid therapy for cancer pain. *Cancer* **127**(6), 968–975. doi:10.1002/cncr.33326
- Bohnert AS, Valenstein M, Bair MJ, et al. (2011) Association between opioid prescribing patterns and opioid overdose-related deaths. *JAMA* **305**(13), 1315–1321. doi:10.1001/jama.2011.370
- Brent J and Weiss ST (2022) The opioid crisis—not just opioids anymore. *JAMA Network Open* **5**(6), e2215432–e2215432. doi:10.1001/jamanetworkopen.2022.15432
- Cagle JG, McPherson ML, Frey JJ, et al. (2020) Estimates of medication diversion in hospice. *JAMA* **323**(6), 566–568. doi:10.1001/jama.2019.20388
- Caraceni A, Hanks G, Kaasa S, et al. (2012) Use of opioid analgesics in the treatment of cancer pain: Evidence-based recommendations from the EAPC. *The Lancet Oncology* **13**(2), e58–e68. doi:10.1016/S1470-2045(12)70040-2
- Carmichael A-N, Morgan L and Del Fabbro E (2016) Identifying and assessing the risk of opioid abuse in patients with cancer: An integrative review. *Substance Abuse and Rehabilitation* **7**, 71–79. doi:10.2147/SAR.S85409
- Case AA, Walter M, Pailler M, et al. (2020) A practical approach to nonmedical opioid use in palliative care patients with cancer: Using the PARTNERS framework. *Journal of Pain and Symptom Management* **60**(6), 1253–1259. doi:10.1016/j.jpainsymman.2020.08.031
- Dalal S and Bruera E (2019) Pain management for patients with advanced cancer in the opioid epidemic era. *American Society of Clinical Oncology Educational Book* **39**, 24–35. doi:10.1200/EDBK_100020
- Gabbard J, Jordan A, Mitchell J, et al. (2019) Dying on hospice in the midst of an opioid crisis: What should we do now? *American Journal of Hospice and Palliative Medicine* **36**(4), 273–281. doi:10.1177/1049909118806664
- Hui D and Bruera E (2014) A personalized approach to assessing and managing pain in patients with cancer. *Journal of Clinical Oncology* **32**(16), 1640–1646. doi:10.1200/JCO.2013.52.2508
- Kirsh KL (2010) Differentiating and managing common psychiatric comorbidities seen in chronic pain patients. *Journal of Pain & Palliative Care Pharmacotherapy* **24**(1), 39–47. doi:10.3109/15360280903583123
- Lipari RN and Hughes A (2013) How people obtain the prescription pain relievers they misuse. The CBHSQ Report. Rockville, MD: Substance Abuse and Mental Health Services Administration (US), 1–7.
- U.S. Department of Health and Human Services (2021) Opioid crisis statistics. <https://www.hhs.gov/opioids/about-the-epidemic/opioid-crisis-statistics/index.html> (accessed 14 November 2022).
- Passik SD and Theobald DE (2000) Managing addiction in advanced cancer patients: Why bother? *Journal of Pain and Symptom Management* **19**(3), 229–234. doi:10.1016/S0885-3924(00)00109-3
- Reddy A and de la Cruz M (2019) Safe opioid use, storage, and disposal strategies in cancer pain management. *Oncologist* **24**(11), 1410–1415. doi:10.1634/theoncologist.2019-0242
- Tang M, Arthur J, Reddy A, et al. (2021) Deficiencies with the use of prescription drug monitoring program in cancer pain management: A report of two cases. *Journal of Palliative Medicine* **24**(5), 751–754. doi:10.1089/jpm.2020.0537
- Tang M and Reddy A (2022) Telemedicine and its past, present, and future roles in providing palliative care to advanced cancer patients. *Cancers (Basel)* **14**(8), 1884. doi:10.3390/cancers14081884
- Yennurajalingam S, Arthur J, Reddy S, et al. (2021) Frequency of and factors associated with nonmedical opioid use behavior among patients with cancer receiving opioids for cancer pain. *JAMA Oncology* **7**(3), 404–411. doi:10.1001/jamaoncol.2020.6789