



Risk assessment in treating non-cancer pain
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Case: Mr. Z is a 62 year-old gentleman with a history of tobacco abuse, alcohol abuse, lymphoma in remission and chronic low back pain stemming from an injury which predated his diagnosis of malignancy. He was referred to palliative care clinic for pain management as he reported uncontrolled back pain and frequently ran out of pain medications.

Discussion: What's the difference between opioid misuse, abuse, addiction and aberrant behavior?

Medication misuse is the use of a prescribed medication other than as directed, intentionally or unintentionally. For example, Mr. Z's use of three tablets of oxycodone for breakthrough pain instead of the prescribed one tablet qualifies as misuse. The use of an illegal drug or the intentional self administration of a medication for a nonmedical purpose qualifies as abuse. Mr. Z has a history of urine drug screens positive for marijuana; thus, he has a history of drug abuse. Addiction is a chronic disease with behavioral characteristics including one or more of the following: impaired control over drug use, craving, compulsive use and continued use despite physical, psychological or social harm (1). To date, Mr. Z has not demonstrated behavior consistent with addiction; however, if he were to develop legal problems such as an arrest for driving under the influence of alcohol, Mr. Z would fit the diagnosis of addiction. Aberrant behavior is a term used in research and includes activities of misuse and abuse.

Why should medical providers screen for opioid misuse or abuse before beginning analgesic therapy?

Long-term opioid therapy can be a safe and effective treatment for chronic non-cancer pain in selected patients (2). However, the risk of opioid misuse carries consequences of overdose and death which require providers to balance individual patients' pain and risk levels. Patients with high risk for opioid misuse should not necessarily be denied opioid pain regimens but should be followed under closer supervision than those patients with lower risk estimates.

What are the risk factors for opioid misuse or abuse?

Risk factors can be grouped into three categories: biological, social and psychological. Biological risk factors include family history of drug abuse and male gender. Social risk factors include poor social support and history of legal problems.

Psychological risk factors include personal history of substance abuse, pre-adolescent history of sexual abuse and major psychiatric disorder (i.e. major depression, bipolar disorder, personality disorder) (3-4).

Is there a way to predict the likelihood for opioid misuse before starting an analgesic regimen in a patient with chronic, non-cancer pain?

Several screening tests exist to predict these patients' potential for opioid misuse. Common screening tests include the Screener and Opioid Assessment for Pain Patients (SOAPP) and the Opioid Risk Tool (ORT).

The SOAPP predicts risk potential for aberrant drug behavior via a 14-item self-report. Items included in the SOAPP cluster into categories of: antisocial behavior, substance abuse history, doctor/patient relationship, medication-related behaviors, psychiatric and neurobiologic need for medicine. Responses are based on a 5 point Likert scale (possible score range 0-56). Using 7 as cut off, this test had a sensitivity of 91%, specificity of 69%, positive predictive value (PPV) of 71% and negative predictive value (NPV) of 90%. It is important to note that although a score of 7 maximizes this test's sensitivity, i.e. identifies most patients with a risk of opioid misuse, it will also result in a large number of false negative tests given the lower specificity at this cut-off. The SOAPP is internally consistent (coefficient alpha=0.74) and reliable (6 month test-retest r=0.71) (5)

The ORT is a 5-item yes/no tool which predicts the probability of opioid misuse or abuse among patients being considered for opioid therapy for chronic pain. This measure is based on several risk factors including: family history of substance abuse, personal history of substance abuse, age (16-45=risk factor), history of pre-adolescent sexual abuse and psychological disease. This measure has a c-statistic of 0.82 for men and 0.85 for women (where $c \geq 0.8$ shows excellent discrimination). Because clinicians administering the ORT could be manipulated by patients with a history of opioid use who downplay past behavior, it is best to apply the tool in lower-risk clinical settings such as primary care rather than higher risk pain clinics.

For palliative care consultations please contact the Palliative Care Program at PUH/MUH, 647-7243, beeper 8511, Shadyside Dept. of Medical Ethics and Palliative Care, beeper 412-647-7243 pager # 8513 or call 412-623-3008, Perioperative/ Trauma Pain 647-7243, beeper 7246, UPCI Cancer Pain Service, beeper 644-1724, Interventional Pain 784-4000, Magee Women's Hospital, beeper 412-647-7243 pager #: 8510, VA Palliative Care Program, 688-6178, beeper 296. Hillman Outpatient: 412-692-4724. For ethics consultations at UPMC Presbyterian-Montefiore, and Children's page 958-3844. With comments about "Case of the Month" call David Barnard at 647-5701.



Which method is the best way to predict opioid misuse or abuse?

In a study of 48 chronic pain patients, the sensitivity of predicting aberrant behavior was compared using three different methods: a trained psychologist's clinical interview, SOAPP and ORT. The clinical interview showed highest sensitivity (77%). SOAPP showed a sensitivity of 73% (score ≥ 6 as cut-off). ORT showed sensitivity of 45% (score ≥ 4 as cut-off) (7). However, given the limited number of studies comparing these instruments, it is reasonable to choose a measure based on practicality, i.e. ease and time of completion or patient versus provider administration. A thorough history including personal and family history of psychiatric conditions and substance abuse may also be sufficient.

Back to the Case: Mr. Z's palliative care physician obtained more history regarding the patient's psychiatric, social and substance abuse history. The patient was deemed to be at moderate risk for opioid misuse. He and his physician discussed the expectations for acceptable behavior to continue opioid therapy including no early refills, only one pain prescriber, random urine drug screens and frequent follow up visits.

References

1. Katz NP, et al. Challenges in the development of prescription opioid abuse-deterrent formulations. *Clin J Pain.* 2007; 23: 648-660.
2. Portenoy RK et al. Chronic use of opioid analgesics in non-malignant pain: report of 38 cases. *Pain.* 1986; 25: 171-186
3. Katz NP, et al. Foundations of opioid risk management. *Clin J Pain.* 2007; 23:103-118.
4. Manchikanti L, et al. Monitoring opioid adherence in chronic pain patients: tools, techniques, and utility. *Pain Physician.* 2008; 11: S155-S180.
5. Butler SF et al. Validation of a screener and opioid assessment measure for patients with chronic pain. *Pain.* 2004; 112: 65-75
6. Webster LR, Webster RM. Predicting aberrant behaviors in opioid-treated patients: preliminary validation of the opioid risk tool. *Pain Med.* 2005; 6:432-442.
7. Moore, TM et al. A comparison of common screening methods for predicting aberrant behavior among patients receiving opioids for chronic pain management. *Pain Med.* 2009; 10: 1426-1433.

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Message from David Barnard

Dear colleagues and friends:

As of July 1, 2010 I have stepped down as Director of the Institute to Enhance Palliative Care. My colleague, Dr. Robert Arnold, Chief of the Section of Palliative Care and Medical Ethics in the Division of General Internal Medicine at the University of Pittsburgh School of Medicine, has assumed the role of Interim Director while the Institute searches for a permanent successor. My decision to step down reflects the fact that I have recently taken on a number of new roles and responsibilities at the University in the areas of global health and human rights. I will remain a member of the Institute's Governing Council.

We founded the Institute in 2003. Since then attention to palliative care has intensified locally, regionally, and nationally. We can be proud of the Institute's role in this process, which has been documented not only in previous editions of this newsletter but, more importantly, in the programs, publications, and projects that the Institute has initiated and sponsored.

I look forward to the continuing growth of palliative care as a clinical and academic field, and as a source of encouragement and hope for everyone whose life is touched by a serious illness.

The Institute Welcomes Hospice and Palliative Medicine Fellow Michael D. Barnett, MD



The Senator H. John Heinz III Fellowship in Palliative Medicine at the University of Pittsburgh welcomes Michael D. Barnett, MD. Dr. Barnett attended the University of Kentucky College of Medicine earning his degree with distinction in 2006. He then completed a combined Internal Medicine-Pediatric Residency acting as Chief Resident in his final year at the University of Alabama at Birmingham in 2009. During his fellowship Dr. Barnett will be earning a Masters in Education. In his spare time he enjoys music, running and reading on the topics of philosophy and theology, history, and Russian literature.

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