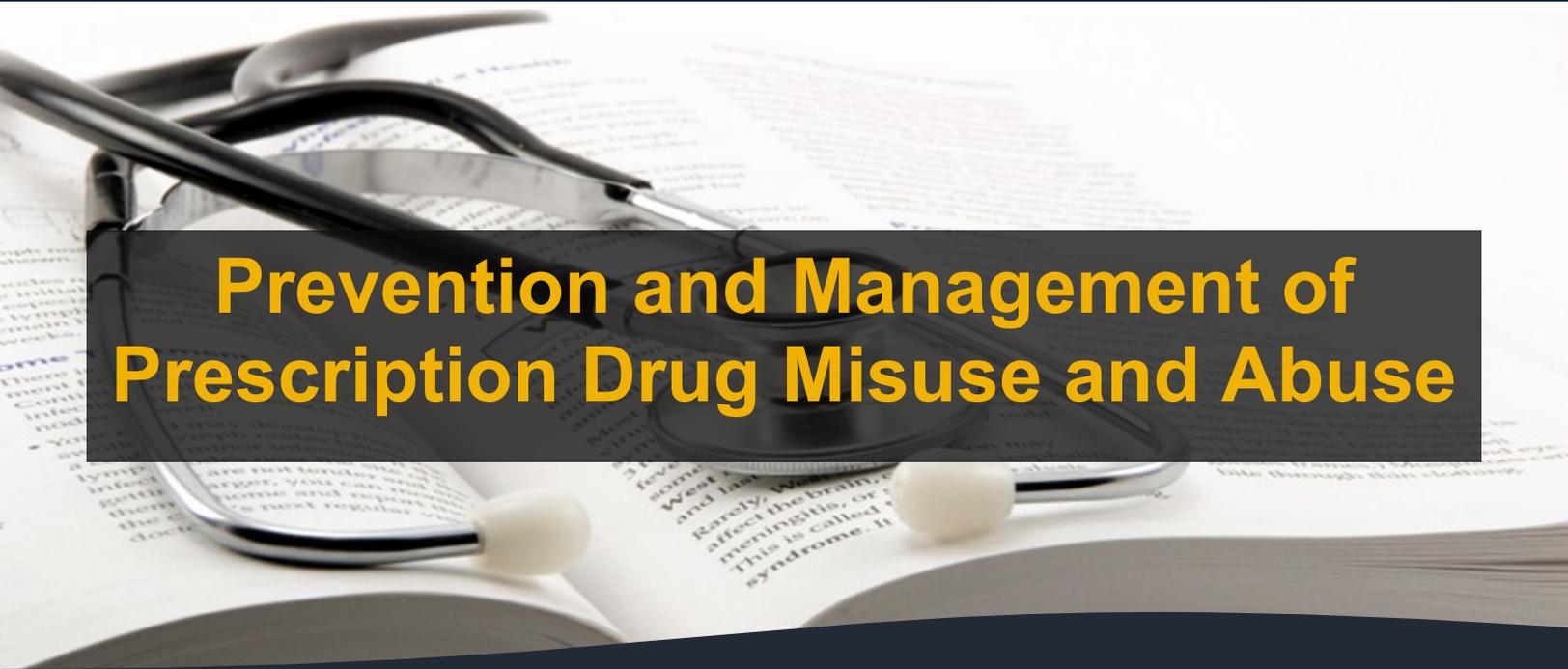




# Pennsylvania Medical Students Core Competencies

A black stethoscope is resting on an open book. The book's pages are filled with text, and a few white pills are scattered on the surface. The background is a soft, out-of-focus light color.

## Prevention and Management of Prescription Drug Misuse and Abuse

The following competencies will be integrated into the education of every medical student receiving training within the state of Pennsylvania. Individual schools should explore options for ensuring students have received this training and should consider implementing a process to evaluate the effectiveness of their educational efforts. Schools are encouraged to share their efforts with others, so that best educational practices may be shared with other schools.

In response to the public health crises caused by drug overdose deaths, the Secretary of Health created a task force consisting of the deans of all Pennsylvania medical schools. The goal of the discussion was to establish education requirements related to the diagnosis and treatment of addiction and the proper use of opioids for the treatment of pain. The initial core competencies were published in

March 2018. This revision has been prepared to improve the education provided to medical students in the commonwealth on these topics. The lead author was Dr. Michael Ashburn, MD, MPH, a professor in the Department of Anesthesiology and Critical Care at the University of Pennsylvania. The work group was comprised of leadership representation from all 10 of Pennsylvania’s medical and osteopathic medical schools:

- Drexel University College of Medicine
- Lake Erie College of Osteopathic Medicine
- Lewis Katz School of Medicine at Temple University
- Penn State College of Medicine
- Perelman School of Medicine at the University of Pennsylvania
- Philadelphia College of Osteopathic Medicine
- Sidney Kimmel Medical College at Thomas Jefferson University
- The Commonwealth Medical College
- University of Pittsburgh School of Medicine
- University of South Florida Lehigh Valley Campus

**Pennsylvania Medical Student Core Competencies for the Prevention and Management of Prescription Drug Misuse and Abuse**

**1. Understanding core aspects of addiction**

- a. Describe what a substance use disorder (SUD) is, including the concept that it may exist along a spectrum from mild to severe.
- b. Describe the criteria used to diagnose an opioid use disorder (OUD).
- c. Report the difference between OUD, psychological dependence, tolerance, and physical dependence.
- d. Summarize the precipitants and factors that interfere with successful treatment of SUD.
- e. Identify and discuss the impact that concurrent mental health disorders and social history can have on successful referral and treatment for SUD.
- f. Describe the impact of traumatic experiences, especially adverse childhood experiences (including child sexual, physical and emotional abuse, neglect, spousal abuse, parental incarceration) on the risk of developing substance use disorder during adulthood.  
Discuss the impact of efforts to reduce exposure to adverse childhood experiences on

development of substance use disorder and the impact of treatment focused on traumatic experiences on addiction treatment outcomes.

- g. Identify common medical conditions that are associated with chronic SUD, which include infection (e.g., sexually transmitted infections), HIV, hepatitis, cancer, and cardiovascular disease.
- h. Describe the impact that SUD can have on chronic health conditions, including diabetes, oral health, and infection.

**2. Patient screening for substance use disorder**

- a. Describe options for how to properly screen patients for SUD.
- b. Explain the role that patient screening tools can play in SUD assessment.

**3. Medication assisted treatment with buprenorphine for opioid use disorder**

- a. Demonstrate that all the training requirements required to file for an X-waiver have been completed through an educational program approved by SAMHSA.
- b. Describe the pharmacological properties and drug effects of buprenorphine, and how buprenorphine is properly administered to treat OUD.
- c. Demonstrate an understanding on how to identify, assess, and diagnose OUD.
- d. Discuss how the patient’s medical and SUD history information can be used to determine a patient’s suitability for treatment with buprenorphine in the outpatient setting.
- e. Describe how buprenorphine is properly administered for induction and maintenance when used for the treatment of OUD.
- f. Discuss how buprenorphine is properly used in special patient populations, including those with psychiatric comorbidities, adolescents, the elderly, pregnant women, individuals currently on methadone, and in patients with pain.

**4. Proper use of naloxone to treat opioid overdose**

- a. Discuss the pharmacology of naloxone for the treatment of acute opioid overdose.
- b. Demonstrate proper use of naloxone for the treatment of acute opioid overdose.
- c. Identify the patient populations that are at increased risk for opioid overdose, and for whom naloxone co-prescribing should be completed.

**5. Proper referral for specialty evaluation and treatment of substance use disorder**

- a. Summarize the importance of proper patient referral for SUD.
- b. Explain the importance of treating the patient with dignity, respect, and a nonjudgmental manner when discussing SUD.
- c. Describe how to discuss the diagnosis of SUD with a patient, including methods for effective referral of a patient for treatment of SUD.
- d. Identify and implement the “warm handoff” referral process for patients with SUD.

**6. Proper patient assessment when treating pain**

- a. Demonstrate how to conduct a pain-focused history and physical examination to determine the cause(s) of the patient’s pain.
- b. Explain the importance of patient assessment, including the value and limitations of patient-reported pain intensity.
- c. Describe the importance of assessment of mood, sleep and physical functioning in the evaluation of a patient with chronic pain.
- d. Summarize the risk factors associated with increased risk of harm associated with opioid therapy in both the hospital and outpatient setting.

**7. Proper use of multi-modal treatment options when treating acute pain**

- a. Defend the statement that both acute and chronic pain can be best treated using a multi-modal treatment that may include the use of regional anesthetic techniques, non-opioid analgesics, self-management techniques, physical therapy, and osteopathic manipulation.

**8. Proper use of opioids for the treatment of acute pain (after consideration of alternatives)**

- a. Summarize opioid pharmacology including
  - i. choice of opioid, route of administration (PO vs IV),
  - ii. use of short acting vs long acting drugs,
  - iii. the factors that place the patient at increased risk of harm when opioids are used to treat acute pain and,
  - iv. identification of steps that can be taken to avoid patient harm.
- b. Describe how acute opioid prescribing decisions can directly impact the risk for long-term use, including non-medical use and development of substance use disorder. Summarize the steps that can be taken to minimize the risk of patient harm.

- c. Describe proper opioid formulation selection (including short-acting vs. long-acting formulations, as well as when an abuse-deterrent formulation may be indicated), and drug dosing when using opioids to treat acute pain.

**9. The role of opioids in the treatment of chronic noncancer pain**

- a. Report on the factors that increase the risk of patient harm, as well as those factors that decrease the chances of improved patient outcomes.
- b. Describe what concurrent medications or medical conditions increase the risk of patient harm.
- c. Discuss the indications for prescribing naloxone for home use to treat opioid overdose.

**10. Patient risk assessment related to the use of opioids to treat chronic noncancer pain, including the assessment for substance use disorder or increased risk for aberrant drug-related behavior**

- a. Discuss the role that screening tools might play in identifying patients at increased risk for harm.
- b. Describe the key patient attributes that may increase the risk of aberrant drug-related behaviors or SUD.

**11. The process for patient education, initiation of treatment, careful patient monitoring, and discontinuation of therapy when using opioids to treat chronic noncancer pain**

- a. Summarize proper methods for patient education related to proper medication storage and disposal.
- b. Defend the role for opioid treatment agreements.
- c. Describe the role that shared decision making can play when considering chronic opioid therapy, including the possible role that family members can play, especially in children and adolescents.
- d. Discuss the role of urine drug screens.
- e. Describe the obligations for review of data contained in the prescription drug data base(s), and the role that this data can play in ongoing monitoring.
- f. Describe the value associated with establishing treatment goals, and how treatment goals can be documented and monitored throughout treatment.

**Authors:**

1. Rachel Levine, MD; Secretary, Pennsylvania Department of Health
2. Michael A. Ashburn, MD, MPH; Professor, Department of Anesthesiology and Critical Care, Perelman School of Medicine, University of Pennsylvania
3. Robert Barraco, MD, MPH; Associate Dean of Educational Affairs, Morsani College of Medicine, University of South Florida, Lehigh Valley Campus
4. Jean Bennett, PhD; Regional Administrator, Substance Abuse and Mental Health Services Administration, United States Department of Health and Human Services, Region III
5. Sarah Boateng, MHA; Executive Deputy Secretary, Pennsylvania Department of Health
6. Theodore A. Christopher, MD, FACEP; Professor and Chairman, Department of Emergency Medicine, Sidney Kimmel Medical College, Thomas Jefferson University and Hospitals
7. Mary A. Delaney, MD; Associate Dean for Faculty Affairs, Professor and Chair of Psychiatry, Drexel University College of Medicine
8. Frederick J. Goldstein, PhD; Professor of Clinical Pharmacology, Director of the Clinical Master of Science Program, Director of Research, Philadelphia College of Osteopathic Medicine
9. Shannon M. Grap, MD; Assistant Professor of Anesthesiology, Director of Medical Education, Department of Anesthesiology and Perioperative Medicine, Penn State College of Medicine
10. Erik Huet; Policy Specialist, Pennsylvania Department of Health
11. Jonathan K. Kalmey, PhD; Assistant Dean of Preclinical Education, Lake Erie College of Osteopathic Medicine
12. Hugh J. Lavery; Senior Vice President, Government, External Affairs and Affiliations, Thomas Jefferson University and Jefferson Health
13. Ken Martz, PsyD, MBA; Special Assistant to the Secretary, Pennsylvania Department of Drug and Alcohol Programs
14. Gail Morrison, MD; Senior Vice Dean for Education, Director of Academic Programs, Perelman School of Medicine, University of Pennsylvania
15. Eileen M. Moser, MD; Associate Dean for Medical Education, Associate Professor of Medicine, Penn State College of Medicine
16. Jeanmarie Perrone, MD; Professor, Director, Division of Medical Toxicology, Department of Emergency Medicine, Perelman School of Medicine, University of Pennsylvania
17. Ilene Rosen, MD, MSCE; Assistant Dean for Graduate Medical Education, Director, Sleep Medicine Fellowship, Perelman School of Medicine, University of Pennsylvania
18. Steven M. Scheinman, MD; President and Dean, The Commonwealth Medical College
19. Regan Shabloski, D.O; Assistant Dean of Clinical Education, Lake Erie College of Osteopathic Medicine
20. Brian N. Squilla, MBA; Vice President for Administration, Chief of Staff, Office of the Provost, Thomas Jefferson University
21. Gerald Sterling, PhD; Senior Associate Dean, Education, Professor of Pharmacology, Lewis Katz School of Medicine, Temple University
22. Gary Tennis, JD; Former Secretary, Pennsylvania Department of Drug and Alcohol Programs
23. Ann Thompson, MD; Vice Dean, University of Pittsburgh School of Medicine
24. Kenneth Veit, DO, MBA; Provost, Senior Vice President for Academic Affairs and Dean, Philadelphia College of Osteopathic Medicine
25. Carien Williams, JD; Associate Dean for Curriculum, The Commonwealth Medical College