The American Academy of Pain Medicine and the American Academy of Pediatrics recognize that pain is associated with a wide range of injury and disease, and that children and adolescents commonly experience acute pain.

These guidelines address the use of opioid pain medication in the pediatric and adolescent population. They are intended to help health care providers improve patient outcomes and to supplement, but not replace, the individual provider's clinical judgement.

These guidelines are intended to provide clear advice regarding the use of opioids, including when not to use them; to provide information about other non-opioid treatment options; to improve care; and to decrease opioid overuse or misuse. These guidelines will optimize the pain management provided to pediatric and adolescent patients and is intended to help curb
the opioid epidemic which is occurring throughout the United States.

It is recommended that providers review associated Pennsylvania Opioid Dispensing Guidelines related to the use of opioids in chronic non-cancer pain, various medical subspecialties and patient populations, pharmacy guidelines, and dental and orthopedic guidelines, which may provide insight into treatment options for these populations.

**BACKGROUND**

Deaths due to opioid overdose have risen sharply over the past 10 years. Between the years 1999 and 2014, 165,000 people have died from opioid pain medication in the United States as a whole. From 2011 through 2013, Pennsylvania ranked fourth in the nation for drug overdose deaths in adolescents and young adults between the ages of 12 and 25 years old.

While the United States makes up only 4.4 percent of the world’s population, Americans utilize 80 percent of the world’s supply of opioids. Prescribing decisions affect not only the patient but the family and society-at-large.

Primary care and specialty providers who treat the pediatric and adolescent population are responsible for providing safe and effective treatment for their patients for both acute and chronic pain.

In specific circumstances, opioids play a useful role in the pharmacological treatment of acute pain following an injury or surgery, as well as pain due to cancer, sickle cell disease, and certain advanced forms of severe illnesses.

Opioids should be avoided whenever non-opioid analgesics can provide adequate management of pain. Studies have shown opioids to be ineffective for the vast majority of patients with chronic pain. For patients with minor or moderate acute pain, effective management should start with other medications (such as non-steroidal anti-inflammatory drugs (NSAIDS), acetaminophen or other adjunctive pain medications), local or regional pain management techniques, or non-pharmacologic methods.

These guidelines includes information about pain, causes of pain, how to assess pain in infants, toddlers and children, and non-opioid methods of treating pain.

**USE OF OPIOID MEDICATION**

a) Indications for use of opioids

1. Opioid analgesics should be reserved for those children and adolescents with moderate to severe pain. Children in need of these medications most often are post-operative patients and those with sickle cell crisis, cancer, or those receiving palliative or end-of-life care.

2. The opioids of choice when treating children for moderate to severe pain are morphine or oxycodone.

3. Short-acting opioids should be used first. Longer-acting opioids should be avoided, as they pose greater safety and misuse risks and are rarely needed.

4. Codeine and tramadol should not be used. The American Academy of Pediatrics has recommended against prescribing codeine for children since 1997 due to its risk of sedation and death. In April 2017, the FDA announced that children younger than age 12 should not take codeine or tramadol. In addition, the FDA restricted the use of these medications in adolescents ages 12 to 18 years of age, particularly following tonsillectomy or adenoidectomy, or if the patients have been diagnosed with sleep apnea, severe lung disease or obesity.

5. Combination medications with set amounts of an opioid paired with a set amount of either acetaminophen or ibuprofen are to be avoided, since the dose of one or two medications in the pair is likely to be too low or too high. It is better to prescribe these medications separately.
6. In general, opioids should not be prescribed in combination with a benzodiazepine, as the use of both medications significantly increases the risk of respiratory arrest and death.

b) Dosing

1. The smallest effective dose should be prescribed when an opioid is selected for use.
2. For both acute and advanced forms of chronic pain with severe illness, the amount of opioid a patient requires to achieve adequate pain control can be reduced if the pain is kept constantly under some degree of control with consistent non-opioid medications. Ensure other non-opioid pain medications are consistently used “round the clock.” The shift to as-needed or PRN use should occur only once the level of pain is expected to be on the decline. The patient must be re-evaluated each time a dose change is needed. Opioids should be discontinued when they are found to be ineffective in treatment.

C) Duration of Opioid Treatment

1. Prescribers should anticipate how long the patient is likely to have moderate to severe pain requiring opioid treatment and dispense only enough opioid medication to be used during the expected period of pain.

D) Compliance with the law

1. Pennsylvania laws limit the prescription of opioids in specific populations, which apply to pediatric prescribers:
   i. No practitioner may prescribe a minor (<18 years old), more than a seven-day supply of opioids, unless in the documented medical opinion of the practitioner, longer therapy is needed, or the opioid is for cancer, palliative, hospice, or chronic pain care. If there is only an authorized adult in charge of the minor (no parent or guardian) no more than a 72-hr supply may be prescribed.

2. When initiating opioid pain medication treatment, practitioners must access and document review of data available through the Pennsylvania Prescription Drug Monitoring Program (PA PDMP) database. Pennsylvania law mandates query of the PDMP prior to every opioid and benzodiazepine prescription, whether a new prescription or continuing therapy. Every query of the database should be documented in the patient’s medical record.

3. Pennsylvania law requires that, in most non-emergency circumstances, a minor may only be prescribed opioid medications if the prescriber first discusses the potential risks associated with the medication with the minor and also with the minor’s parent, guardian or an adult who has a valid health care proxy to consent to the minor’s medical treatment. The prescriber must document whether the patient is an emancipated minor. The ‘Consent to Prescribe Opioid Medication to a Minor’ must be maintained in the minor’s record with the prescriber.

**Counseling to Prevent Opioid Use Disorder**

a) Despite the implementation of safe and effective prescribing practices by providers, children and adolescents are still at risk for developing an opioid use disorder.

b) When a prescriber issues a prescription for opioids, patients should be informed that all medications, especially opioids, should be stored in a secure place, out of the reach of children and adolescents. When opioids are no longer necessary for the indication for which they were prescribed, they should be disposed of in a safe manner and should not be stored for future use. Pennsylvania maintains drug take back centers. Locations for drug take-back centers can be found at:

https://apps.ddap.pa.gov/GetHelpNow/PillDrop.a
spx. The prescriber must emphasize importance of these measures to parents to keep their children and adolescents safe.

c) When discussing health history with a child and parents, prescribers should screen for personal or family history of depression, anxiety, ADD/ADHD, substance use disorders or other major psychiatric disorders, because these conditions may increase the likelihood of developing a substance use disorder.

d) Talk to parents about ways to initiate conversations with their child around issues such as medication misuse, diversion, and other substance use, as well as abuse of alcohol and marijuana. Encouraging children to make good choices, teaching them how to say no, and providing clear rules about substance use are important elements of these discussions. There are several resources available for practitioners and parents on how to have conversations about substance use and abuse. (Refer to Resources section on page 5 for additional information.)

e) Diversion of opioid medications and use in the adolescent population has significantly increased the risk of addiction in this population. Pediatricians, family practitioners and college health professionals need to perform proper screening for signs of opioid use disorder at regular checkups as well as encounters for pain. Practitioners must have a plan in place for intervention and referral to treatment if needed.

Find Treatment: Care Provider Search
https://apps.ddap.pa.gov/GetHelpNow/CareProvider.aspx
Locate County Resources
https://apps.ddap.pa.gov/gethelpnow/CountyServices.aspx

CAUSE OF PAIN

a) Opioids are most effective in treating pain due to acute tissue injury, such as what occurs after an injury or a surgical operation or a dental surgical procedure; or when a disease process is causing ongoing tissue injury (such as what can occur in advancing cancer or in sickle cell disease).

b) Whenever an opioid medication is prescribed for chronic non-cancer pain, the Pennsylvania Medical Society Pennsylvania Opioid Prescribing Guidelines should be followed.

DEFINITION OF PAIN

a) The International Association for the Study of Pain defines pain as “an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.” The definition goes on to clarify that “pain is always subjective,” and that “the inability to communicate pain verbally does not negate the possibility that an individual is experiencing pain and is in need of appropriate pain relieving treatment.”

b) Acute pain -- pain of varying intensity which usually lasts less than three months in duration -- responds well to conventional analgesia and subsides as healing takes place.

c) Chronic pain is pain lasting beyond the usual course of acute illness or injury or more than three to six months and adversely affects the individual’s well-being. (IASP, 2004).

1. Assessment of Acute Pain in Younger and Communication-Impaired Children

While younger children and communication-impaired adolescents experience pain from the same sources as adults do, they often do not have the ability to express themselves clearly. Therefore, assessment of pain severity and cognition of a child must include both self-reporting measures and behavioral observational scales depending upon the developmental age of the child or adolescent. Parental involvement in pain assessment may be necessary but should not preclude direct observation and assessment of the child or adolescent.

2. Assessment of Moderate to Severe Pain in Infants and Pre-verbal Toddlers

Use of standardized assessment tools, such as the Wong-Baker FACES or the FLACC-R, should inform assessment and treatment.

3. Assessment of Pain in Older Communication-impaired Children
Those children, adolescents and young adults who have severe communication impairments and cannot use a numeric or facial depiction pain rating scale, are nevertheless at heightened risk for experiencing pain and warranting pain management.

The FLACC-R, or other pediatric pain assessment tools, should be used to provide a consistent method of assessment for the presence and degree of pain in these patients over time, with individualized specific pain behaviors for a given patient assessed over time. These specific pain behaviors might include particular vocalizations, changes in neuromuscular tone, breath-holding and self-injurious behaviors.

**NONE-OPIOID PAIN TREATMENT METHODS**

a) Non-opioid medication options include acetaminophen and ibuprofen or other non-steroidal anti-inflammatory drugs and are the preferred alternative to opioids for most pediatric patients with mild to moderate pain. As mentioned above, these medications are most effective when prescribed to provide around-the-clock relief for the duration of time that pain is expected to last. Switching to an “as-needed” or PRN schedule should occur only when pain is under good control. Multi-modal pain strategies, including NSAIDs as well as non-narcotic pain medicine, local/regional anesthetics, or indwelling nerve catheters, may be effective when pain is localized to a specific area.

b) If acute pain cannot be controlled by using acetaminophen or ibuprofen alone, these medications can be used simultaneously at their recommended doses by alternating the dose times. Dosing of these medications can be alternated every three hours as needed, as long as the maximum dose for each medication is not exceeded. In certain conditions, such as migraines and neuropathic pain, other pharmacologic options, such as anti-epileptics or anti-depressants, can be incorporated into the medication regimen as a treatment option or as an adjunctive or ‘opioid sparing’ agent.

c) Non-pharmacologic therapies are also recommended. They can be used alone or in conjunction with pharmacological agents or with each other. Physical, behavioral and cognitive measures can be used to effectively reduce or relieve pain.

1. Physical measures include massage, heat and cold stimulation, acupuncture, and transcutaneous electrical nerve stimulation (TENS).

2. Behavioral measures include tools such as operant conditioning, relaxation, biofeedback, desensitization; as well as exercise, physical therapy, art and play therapy.

3. Cognitive measures like distraction, imagery, hypnosis and psychotherapy have also been proven effective for treating pain in children and adolescents.

**SPECIALTY CONSULTATION**

Some patients’ pain will not respond to non-opioid and opioid medications as expected. There are also many other non-opioid adjunctive medications which can be used to manage pain, and there are also more complex forms of pain management interventions. Rather than provide increasing opioids, consider referral to a pain management specialist for treatment.

**EVIDENCE-BASED GUIDELINES FOR MANAGING ACUTE OR CHRONIC PAIN IN CHILDREN**

The optimal comprehensive management of acute or chronic pain in children and adolescents involves much more than what can be covered in this guideline. Prescribers are encouraged to seek published evidence-based guidelines regarding the best management of pain for children and adolescents, which often address specific conditions such as sickle cell disease and other neuromuscular conditions.
RESOURCES:

Consent to Prescribe Opioid Medication to a Minor.

Drug Take-Back Locations.
https://apps.ddap.pa.gov/GetHelpNow/PillDrop.aspx

Find Treatment: Care Provider Search.
https://apps.ddap.pa.gov/GetHelpNow/CareProvider.aspx

MedWatch Online Voluntary Reporting Form.
https://www.accessdata.fda.gov/scripts/medwatch

Parent Talk Kit.

Prescription Drug Monitoring Program PDMP Portal.
http://www.health.pa.gov/Your-Department-of-Health/Offices%20and%20Bureaus/PaPrescriptionDrugMonitoringProgram/Pages/PDMP-Portal.aspx#.WWeX5qPD_IX

WHO guidelines on the pharmacological treatment of persisting pain in children with medical illnesses.

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