

A Holistic Approach to Pain Management: Integrated, Multimodal, and Interdisciplinary Treatment *Position Statement*

AANA Position

While many patients may benefit from access to opioid analgesics, there has been an alarming increase in opioid diversion, opioid use disorder, and opioid-related mortality and morbidity.¹⁻⁴ There is also a growing recognition of the impact of pain on the health, productivity, and well-being of individuals in the United States.⁵⁻⁷

Pain is a personal experience that, if left undertreated or mismanaged, can radically change an individual's quality of life and impact important relationships. Acute and chronic pain is best treated and managed by an interdisciplinary team that actively engages the patient to diagnose and manage their pain for improved well-being, functionality, and quality of life. As members of the interdisciplinary team, Certified Registered Nurse Anesthetists (CRNAs) are well positioned to provide holistic, patient-centered, multimodal pain treatment and management across the continuum of pain and in all clinical settings (e.g., hospitals, ambulatory surgical centers, offices, and pain management clinics).⁸⁻¹³ CRNAs practice in accordance with their professional scope of practice, federal and state law, guidelines, and facility policy to provide acute and chronic pain management services.

Partnering with the Patient

Compassionate patient-centered care is a hallmark of CRNA clinical practice. Patient-centric pain management offers the patient greater transparency, understanding, and engagement in their care. Certain racial, ethnic, and socioeconomic groups are at particular risk of receiving suboptimal pain management.¹⁴ Pain assessment and pain care are individualized to incorporate the patient's preferences, age, culture, beliefs, social environment, healthcare history, and physical and psychological condition.¹⁴⁻¹⁸ As new diagnostic techniques continue to emerge and mature, they can play a major role in personalized medicine and the development of patient-specific pain treatment and management plans. One such example is the integration of pharmacogenomic testing to examine how inherited genetic differences affect an individual's response to drugs.^{19,20}

Using a shared decision-making model and a robust communication plan, CRNAs facilitate collaborative care through planning and discussion of risks and benefits of the pain management plan. This approach encourages the patient to express his or her preferences and values and to establish realistic goals for well-being and quality of life. It is important to provide patients with the appropriate skills, education, and resources so that they can play an active role in their pain management.⁶

Multimodal Pain Management

An increase in painkiller prescribing is a driver of the increase in prescription overdoses.²¹ According to the 2016 National Pain Strategy, multimodal pain management "addresses the full range of an individual patient's biopsychosocial challenges, by providing a range of multiple and different types of therapies that may include medical, surgical, psychological, behavioral, and

integrative approaches as needed.¹⁶ CRNAs integrate multimodal pain management as an element of enhanced recovery after surgery (ERAS) protocols to manage pain. Management occurs from pre-procedure to post discharge using opioid sparing techniques such as regional anesthesia, peripheral nerve blocks, non-pharmacologic approaches, and non-opioid based pharmacologic measures.^{13,22,23} ERAS pathways use multimodal pain management to reduce the use of opioids and shorten overall hospital length of stay.²⁴⁻²⁶ Careful assessment and treatment of acute pain, which may include appropriate opioid prescribing, can decrease the risk of acute pain transitioning to chronic pain or the probability of the development of opioid dependency and abuse.²⁷⁻³² Acute pain management of the chronic pain patient can pose perioperative challenges, but may also be addressed using a multimodal, interdisciplinary approach tailored to the patient's needs.¹⁶

Figure 1 presents an overview of the many points of patient care where CRNAs provide their expertise and pain care services.

Figure 1. Perioperative Anesthesia Care

Preoperative / Preprocedure Period^{16,19,20,23,26,33-35}



- Patient and caregiver education
- Patient history to include pain assessment and evaluation
- Development of patient-specific treatment plan & informed consent
- Patient optimization:
 - Oral fluids and carbohydrate loading two hours preoperatively
 - Antibiotic prophylaxis
 - No or minimal premedication
 - Begin pain management plan

Intraoperative / Intraprocedure Period^{13,16,23,26,36}



- Multimodal pain management
- Regional and/or neuroaxial blockade, where applicable
- Antiemetic(s)
- Normothermia
- Normovolemia, avoid salt and water overload

Postoperative / Postprocedure Period^{18,23,25,26}



- Patient and caregiver education
- Prevention and management of postoperative nausea and vomiting (PONV)
- Early nutrition
- Systemic analgesics
- Early mobilization
- Defined discharge criteria
- Symptom identification and early rescue

Home Recovery Period³⁷⁻⁴⁰



- Care coordination with interdisciplinary clinical team
- Clear understanding of instructions
- Post anesthesia follow-up
- If indicated, prescription for only necessary amount of opioids, reassess patient prior to new prescription for opioids
- Encourage alternative pain management (e.g., mindfulness, relaxation, exercise)
- Transition multimodal regimens into the rehabilitative phase at home
- Address and track patient reported symptoms

Chronic Pain Treatment and Management^{6,10,17,41-44}



- Establish realistic treatment goals that focus on quality of life improvement
- Collaborate with the patient's interdisciplinary team
- Incorporate appropriate pain management modalities tailored to patient's level of pain, functionality, and response
 - Non-pharmacologic
 - Pharmacologic
 - Interventional
- Continued reassessment of pain to tailor treatment plan
- Access the Prescription Drug Monitoring Program when prescribing opioids

Cancer, Palliative, and/or Hospice Care⁴⁵⁻⁴⁹



- Develop interdisciplinary pain control plan
- Adjust pain medications according to patient response and level of pain
- Provide patient and caregiver education and counseling
- Treat and manage acute, chronic, or breakthrough pain due to cancer or cancer treatments using non-pharmacologic and pharmacologic modalities when appropriate
- Manage opioid side effects (e.g., constipation, nausea, drowsiness)
- Focus on functional goals and quality of life
- Implement and track multi-symptom patient-reported outcome measures

References

1. Centers for Disease Control and Prevention. Injury Prevention & Control: Opioid Overdose. March 16, 2016; <http://www.cdc.gov/drugoverdose/index.html>. Accessed June 3, 2016.
2. Cheatle MD. Prescription Opioid Misuse, Abuse, Morbidity, and Mortality: Balancing Effective Pain Management and Safety. *Pain Med.* Oct 2015;16 Suppl 1:S3-8.

3. The White House. Fact Sheet: Obama Administration Announces Public and Private Sector Efforts to Address Prescription Drug Abuse and Heroin Use. October 21, 2015; <https://www.whitehouse.gov/the-press-office/2015/10/21/fact-sheet-obama-administration-announces-public-and-private-sector>. Accessed June 3, 2016.
4. Office of National Drug Control Policy. Office of Public Affairs. Fact Sheet: Opioid Abuse in the United States. February 11, 2014; https://www.whitehouse.gov/sites/default/files/ondcp/Fact_Sheets/opioids_fact_sheet.pdf. Accessed June 3, 2016.
5. IOM (Institute of Medicine). 2011. Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research. Washington, DC: The National Academies Press.
6. National Pain Strategy: A Comprehensive Population Health-Level Strategy for Pain. The Interagency Pain Research Coordinating Committee, National Institutes of Health, 2016.
7. PAINS Project. National Leaders and Organizations Endorse Four Core Messages to Drive a Cultural Transformation in the Way Pain is Perceived, Judged and Treated. July 15, 2015; <http://www.painsproject.org/news-alert/>. Accessed June 3, 2016.
8. Scope of Nurse Anesthesia Practice. Park Ridge, IL: American Association of Nurse Anesthetists; 2013.
9. Standards for Nurse Anesthesia Practice. Park Ridge, IL: American Association of Nurse Anesthetists; 2013.
10. Chronic Pain Management Guidelines. Park Ridge, IL: American Association of Nurse Anesthetists; 2014.
11. Standards for Accreditation of Post-Graduate CRNA Fellowships. Park Ridge, IL: Council on Accreditation of Nurse Anesthesia Educational Programs; 2014.
12. Nonsurgical Pain Management (NSPM) Program Candidate Handbook. Chicago, IL: National Council for Certification and Recertification of Nurse Anesthetists; 2014.
13. Regional Anesthesia for Surgical Procedures and Acute Pain Management. Park Ridge, IL: American Association of Nurse Anesthetists; 2014.
14. Bekanich SJ, Wanner N, Junkins S, et al. A multifaceted initiative to improve clinician awareness of pain management disparities. *Am J Med Qual.* Sep-Oct 2014;29(5):388-396.
15. Booker SQ. African Americans' Perceptions of Pain and Pain Management: A Systematic Review. *J Transcult Nurs.* Jan 2016;27(1):73-80.
16. Benfari RN. Management of the patient with chronic pain. *Crit Care Nurs Clin North Am.* Mar 2015;27(1):121-129.
17. Hechler T, Kanstrup M, Holley AL, et al. Systematic Review on Intensive Interdisciplinary Pain Treatment of Children With Chronic Pain. *Pediatrics.* Jul 2015;136(1):115-127.
18. Kolettas A, Lazaridis G, Baka S, et al. Postoperative pain management. *J Thorac Dis.* Feb 2015;7(Suppl 1):S62-72.
19. Ting S, Schug S. The pharmacogenomics of pain management: prospects for personalized medicine. *J Pain Res.* 2016;9:49-56.
20. Ko TM, Wong CS, Wu JY, Chen YT. Pharmacogenomics for personalized pain medicine. *Acta Anaesthesiol Taiwan.* Mar 2016;54(1):24-30.
21. Centers for Disease Control and Prevention. Vital Signs. Opioid Painkiller Prescribing. July 2014; <http://www.cdc.gov/vitalsigns/opioid-prescribing/index.html>. Accessed June 21, 2016.

22. American Association of Nurse Anesthetists. Enhanced Recovery. www.aana.com/enhancedrecovery. Accessed June 3, 2016.
23. Lukyanova V, Reede L. Perioperative Care Pathways for Enhanced Recovery and Anesthesia. *AANA NewsBulletin*. May 2015;69(3):17-19.
24. Keller DS, Tahilramani RN, Flores-Gonzalez JR, Ibarra S, Haas EM. Pilot study of a novel pain management strategy: evaluating the impact on patient outcomes. *Surg Endosc*. Aug 15 2015.
25. Beck DE, Margolin DA, Babin SF, Russo CT. Benefits of a Multimodal Regimen for Postsurgical Pain Management in Colorectal Surgery. *Ochsner J*. Winter 2015;15(4):408-412.
26. Tan M, Law LS, Gan TJ. Optimizing pain management to facilitate Enhanced Recovery After Surgery pathways. *Can J Anaesth*. Feb 2015;62(2):203-218.
27. Larner D. Chronic pain transition: a concept analysis. *Pain Manag Nurs*. Sep 2014;15(3):707-717.
28. Katz J, Seltzer Z. Transition from acute to chronic postsurgical pain: risk factors and protective factors. *Expert Rev Neurother*. May 2009;9(5):723-744.
29. Shipton EA. The transition from acute to chronic post surgical pain. *Anaesth Intensive Care*. Sep 2011;39(5):824-836.
30. Voscopoulos C, Lema M. When does acute pain become chronic? *Br J Anaesth*. Dec 2010;105 Suppl 1:i69-85.
31. Glowacki D. Effective pain management and improvements in patients' outcomes and satisfaction. *Crit Care Nurse*. Jun 2015;35(3):33-41; quiz 43.
32. Meissner W, Coluzzi F, Fletcher D, et al. Improving the management of post-operative acute pain: priorities for change. *Curr Med Res Opin*. Nov 2015;31(11):2131-2143.
33. Cheers Dream! Patients. <http://cheers-dream.org/Patients>. Accessed June 17, 2016.
34. American Society of Enhanced Recovery. Patient Education. <http://aserhq.org/education/patient-education-materials/>. Accessed June 17, 2016.
35. O'Donnell KF. Preoperative pain management education: a quality improvement project. *J Perianesth Nurs*. Jun 2015;30(3):221-227.
36. Shah S, Kapoor S, Durkin B. Analgesic management of acute pain in the opioid-tolerant patient. *Curr Opin Anaesthesiol*. Aug 2015;28(4):398-402.
37. Macintyre PE, Huxtable CA, Flint SL, Dobbin MD. Costs and consequences: a review of discharge opioid prescribing for ongoing management of acute pain. *Anaesth Intensive Care*. Sep 2014;42(5):558-574.
38. Allison J, George M. Using preoperative assessment and patient instruction to improve patient safety. *AORN J*. 2014;99(3):364-375.
39. Blizzard R. How Hospitals Can Effectively Manage Patients' Pain. 2013; <http://www.gallup.com/businessjournal/158759/hospitals-effectively-manage-patients-pain.aspx>. Accessed June 20, 2016.
40. Krogsgaard M, Dreyer P, Egerod I, Jarden M. Post-discharge symptoms following fast-track colonic cancer surgery: a phenomenological hermeneutic study. *Springerplus*. 2014;3:276.
41. Kress HG, Aldington D, Alon E, et al. A holistic approach to chronic pain management that involves all stakeholders: change is needed. *Curr Med Res Opin*. 2015;31(9):1743-1754.
42. Mills S, Torrance N, Smith BH. Identification and Management of Chronic Pain in Primary Care: a Review. *Curr Psychiatry Rep*. Feb 2016;18(2):22.

43. Mackey S. The "continuum of pain" and the American Academy of Pain Medicine. *Pain Med.* Mar 2015;16(3):413-415.
44. Howe CQ, Sullivan MD. The missing 'P' in pain management: how the current opioid epidemic highlights the need for psychiatric services in chronic pain care. *Gen Hosp Psychiatry.* Jan-Feb 2014;36(1):99-104.
45. Cleeland CS. M.D. Anderson Symptom Inventory. 2009;
https://www.mdanderson.org/education-and-research/departments-programs-and-labs/departments-and-divisions/symptom-research/symptom-assessment-tools/MDASI_userguide.pdf. Accessed June 19, 2016.
46. Lee YJ, Hyun MK, Jung YJ, Kang MJ, Keam B, Go SJ. Effectiveness of education interventions for the management of cancer pain: a systematic review. *Asian Pac J Cancer Prev.* 2014;15(12):4787-4793.
47. Rauenzahn S, Del Fabbro E. Opioid management of pain: the impact of the prescription opioid abuse epidemic. *Curr Opin Support Palliat Care.* Sep 2014;8(3):273-278.
48. Syrjala KL, Jensen MP, Mendoza ME, Yi JC, Fisher HM, Keefe FJ. Psychological and behavioral approaches to cancer pain management. *J Clin Oncol.* Jun 1 2014;32(16):1703-1711.
49. Antunes B, Harding R, Higginson IJ, Euroimpact. Implementing patient-reported outcome measures in palliative care clinical practice: a systematic review of facilitators and barriers. *Palliat Med.* Feb 2014;28(2):158-175.

Adopted by AANA Board of Directors July 2016.

© Copyright 2016