



Perceptions and Attitudes of Anesthesiologists toward Pain Management: A Survey of Pain Categories

David D. Nguyen¹, Daneshvari Solanki², Christopher Babl³, Nikolaus Gravenstein³ and Rene Przkora^{3*}

¹Department of Anesthesiology, Division of Pain Management, Texas A&M Health Science Center, Baylor Scott & White Health System, USA

²Department of Anesthesiology, Division of Pain Medicine, The University of Texas Medical Branch, USA

³Department of Anesthesiology, University of Florida, USA

*Corresponding author: Rene Przkora, Associate Professor of Anesthesiology and Pain Medicine, Fellowship Director - Multidisciplinary Pain Medicine Fellowship, Department of Anesthesiology, University of Florida, Gainesville, FL, USA, Tel: 352-273-6575, E-mail: RPrzkora@anest.ufl.edu

Pain is a global epidemic and in America is considered the fifth vital sign. It causes significant suffering and disability, and pain contributes to massively increased healthcare costs. Effective pain management is an important outcome and quality measure.

Based on the duration and likely etiology of pain, we subdivided it into *acute pain*, which included *acute post-operative pain*, *chronic pain*, and *cancer related pain*. The exact mechanisms for pain and the risk of chronicity are still under investigation.

We as Anesthesiologists are the first-line experts to treat post-operative pain in the hospital and ambulatory setting, but virtually all healthcare professionals encounter patients with pain. Of note, these clinicians' education in pain medicine varies considerably.

Additionally, healthcare providers have different preferences and proclivities towards patients with pain. The diagnosis and treatment

of pain is a key component in the education of every Anesthesiologist. We suspected that there were differences in the types of pain Anesthesiologists are more comfortable with and prefer to treat.

To explore this question, we conducted a survey to determine the similarities and differences between faculty and resident Anesthesiologists in regard to treating acute, chronic, or cancer-related pain patients.

After obtaining consent, we surveyed Anesthesiology faculty (38) and residents (64) in the Department of Anesthesiology at The University of Texas Medical Branch in Galveston. The survey consisted of 15 questions (Table 1) that could only be answered with one of the following answer choices. The answer choices were defined in the survey and included:

A) Post-operative Pain (pain after surgery <3 months)

Table 1: Survey consisted of 15 questions.

	Question
1	Which type of pain are you best educated about?
2	Which type of pain do you treat most often?
3	Which pain can you control best?
4	Which pain do you prefer to treat?
5	Which pain is easiest to treat?
6	Which type of pain is most difficult to treat?
7	Which pain has the highest priority to get treated?
8	Which patient's pain complaint is most reliable?
9	Which pain do you rely most on the numerical pain scale/subjective information given by the patient?
10	For which type of pain do you prefer objective signs of pain such as vital signs and patient activity level?
11	Which pain type would you allow a nurse to administer opioids before evaluation by a physician?
12	Which pain type would you prefer a referral to a pain medicine specialist?
13	Which patients have the most difficult physician-patient interactions?
14	Which type of pain is best controlled in your department?
15	Which type of pain patients do you prefer to review prior records or to contact prior medical providers?

- B) Acute Pain (non-surgical pain <3 months)
- C) Chronic Pain (non-cancer pain \geq 3 months)
- D) Cancer Pain (nonspecific pain secondary to cancer)

Sixty-seven surveys were returned, resulting in an overall response rate of 66%. Anesthesiology Faculty: 42% (16 out of 38) and Residents: 80% (51 out of 64). Four out of the 16 Faculty were also practicing Pain Medicine, including research, and the training level of the Residents was as follows: Intern: 9; CA1: 15; CA2: 13; CA3: 14.

All faculty and in-training physicians who responded to the survey felt most educated about post-operative pain. Both faculty and residents treated post-operative pain most often, and both groups felt that this had the highest priority to be treated. Faculty and residents were more comfortable treating post-operative pain followed by acute pain.

All faculty and residents felt that chronic pain patients were the most difficult to treat, and these patients had the most difficult clinical encounters. Faculty tended to use more objective data such as vital signs and activity level when treating chronic pain patients when compared to residents. Overall, there were more similarities than differences in the preferences between faculty and residents in evaluating acute and chronic pain patients.

Given the fact that Anesthesiologists mostly attend to perioperative patients, the preference and comfort level in treating acute post-operative pain is not surprising.

Our survey data are also in concordance with data of other medical specialties such as Emergency Medicine in the fact that chronic pain patients are some of the most challenging patients to treat [1-3]. We as Anesthesiologists sometimes share the perception with many other specialties that acute pain is more of a recognized and manageable condition when compared to chronic pain. In addition, acute pain leading to chronic pain can be even more difficult and costly to treat [4,5]. This perception is further supported by our data in that the comfort level of Anesthesiologists to treat acute pain is significantly higher than chronic pain despite the broader ACGME requirements in Anesthesiology [6]. This suggests a significant ongoing barrier to care for patients with chronic pain.

Although our survey was brief and limited to a single academic Anesthesiology department, it reminds us that there is an opportunity and a need to improve chronic pain management education for many clinicians, including Anesthesiologists. Given the similarities of perceptions between Anesthesiology faculty and residents, this barrier will not disappear by just advancing through residency. Instead, both attendings and in-training physicians can continue to improve their knowledge and medical-decision making with regard to chronic pain patients. Our curricula should evolve to enable us to approach chronic and cancer pain with the same comfort level and expertise as we do post-operative pain.

Simulation-based education in medicine (SBEM) is one technique to improve knowledge and comfort level in the evaluation and treatment of patients with chronic pain. We as Anesthesiologists are leaders in SBEM with the current focus on acute crisis management, especially in the operating room. Using our experience in SBEM, we ultimately can expand this approach to enhance our skills in chronic pain scenarios, including the interaction with the "difficult patient."

Actively expanding our interest and expertise in the management and prevention of chronic pain and active management of these patients will likely improve outcomes and satisfaction in a similar way as we have achieved in the treatment of post-operative pain. Additionally, a significant dedication in treating patients with chronic pain will support the standing and reputation of our specialty in the rapidly changing healthcare environment. This may also be of particular importance with the implementation of the Surgical Home coordinated care concept and Accountable Care Organizations [7,8].

References

1. Wilsey BL, Fishman SM, Ogden C, Tsodikov A, Bertakis KD (2008) Chronic pain management in the emergency department: a survey of attitudes and beliefs. *Pain Med* 9: 1073-1080.
2. Hansen GR (2005) Management of chronic pain in the acute care setting. *Emerg Med Clin North Am* 23: 307-338.
3. Fosnocht DE, Swanson ER, Barton ED (2005) Changing attitudes about pain and pain control in emergency medicine. *Emerg Med Clin North Am* 23: 297-306.
4. Young Casey C, Greenberg MA, Nicassio PM, Harpin RE, Hubbard D (2008) Transition from acute to chronic pain and disability: a model including cognitive, affective, and trauma factors. *Pain* 134: 69-79.
5. Shipton EA, Tait B (2005) Flagging the pain: preventing the burden of chronic pain by identifying and treating risk factors in acute pain. *Eur J Anaesthesiol* 22: 405-412.
6. Accreditation Council for Graduate Medical Education (2015) "ACGME Program Requirements for Graduate Medical Education in Anesthesiology."
7. Vetter TR, Goeddel LA, Boudreaux AM, Hunt TR, Jones KA, et al. (2013) The Perioperative Surgical Home: how can it make the case so everyone wins? *BMC Anesthesiol* 13: 6.
8. Kash B, Cline K, Menser T, Zhang Y (2015) The Perioperative Surgical Home: A Comprehensive Literature Review for the American Society of Anesthesiologists.