



# Research Week 2023

## Procedural education for cancer-related pain in pain medicine fellowships: a national program survey

Alex Woodrow, DO<sup>1</sup>, Masaru Teramoto, PhD, MPH, PStat<sup>®2</sup>, Mrinal Thapliyal, BS<sup>1</sup>, and Sandy Christiansen, MD<sup>1\*</sup>

1. Department of Anesthesiology and Perioperative Medicine, Oregon Health & Science University, Portland, OR, USA

2. Department of Physical Medicine & Rehabilitation, University of Utah, School of Medicine, Salt Lake City, UT, USA

\*Corresponding author

### Keywords

Quality of Life, Cancer Pain, Vertebral Body, Surveys and Questionnaires, Neoplasms

### Abstract

#### Introduction

Cancer-related pain is ubiquitous. Targeted procedural interventions may be an important and under-utilized method for improving cancer-related pain and quality of life. The goal of this study was to determine the baseline educational experience and perceived post-graduation comfort of Pain Medicine fellows in performing procedures that can be used for cancer-related pain.

#### Methods

Using Qualtrics<sup>®</sup> software, we sent a 16-question survey to graduating fellows at accredited Pain Medicine fellowship programs in the United States in June 2022. The fellows' experiences and comfort levels in performing eight procedures were analyzed using descriptive statistics and contingency table analysis with statistical significance determined by Pearson  $\chi^2$  test.

#### Results

Survey respondents represented 30% of the fellows in 44% of Pain Medicine programs who trained during the 2021-2022 academic year. The majority of respondents reported no experience performing seven of the eight procedures for cancer-related pain. Graduating fellows reported overall comfort performing sympathetic neurolysis (65.7%), spinal cord stimulator trials (85.7%) and implantations (66%), but not intrathecal pump trials (36.9%) and implantations (31.3%), peripheral nerve stimulator implantations (41.7%), vertebral augmentations (31.3%) and vertebral body radiofrequency ablations (16.7%).

#### Discussion

High departmental procedural volume, personal interest in treating cancer-related pain, and attendance of cancer-related pain lectures were all found to significantly increase comfortability in performing procedures for cancer-related pain post-graduation, whereas cadaver-based learning did not. This study highlights the need for more robust procedural education for cancer-related pain and identifies procedural experience in non-cancer patients, and lectures on cancer-related pain as ways to bridge this educational gap.