

**Nonsurgical Pain Management Certification
Professional Practice Analysis
Executive Summary**

The National Board of Certification and Recertification for Nurse Anesthetists (NBCRNA) conducts routine Professional Practice Analyses (PPAs) to keep its certification exams aligned with clinical practice. For the 2025-2026 evaluation of the Nonsurgical Pain Management Certification (NSPM-C), NBCRNA utilized a mixed-methods design that included structured review by a panel of NSPM subject matter experts (SMEs) and a survey of actively certified NSPM providers to validate the updates.

During the initial meeting at NBCRNA headquarters, SMEs evaluated the exam's content outline, highlighting areas needing clarification or updates, which led to combining the six core domains into five primary domains.

A survey was sent to all active NSPM-certified CRNAs (n=224) produced responses from a representative sample (n=68). Analysis confirmed close demographic alignment between respondents and the wider certified community, supporting the credibility of the findings. Ratings on how critical and frequent (using five-point Likert scales) each knowledge area was gathered for the five primary domains, 34 subdomains, and 67 tertiary domains. Most areas received high ratings, reinforcing their continued relevance to NSPM practice. Knowledge elements with mean ratings below three were flagged for review and discussed by the panel. A total of 20 subdomains and tertiary domains were identified with a criticality or frequency mean rating below three.

The NSPM panel met remotely to validate the proposed updates based on the survey data. Revisions were implemented selectively to remove overly detailed tertiary items, refine subdomain descriptions, and ensure the outline remained both comprehensive and practice focused. The panel also examined how much each domain should influence the exam, using both calculated importance ratings and survey participants' preferred emphasis. Based on these, they recommended updates to reflect current clinical practices more closely.

The revised five-domain content outline and weighting will guide item development and examination preparation for the NSPM-C. A summary of the changes to the NSPM content outline is available under "Supplemental Information."

Supplemental Material: NSPM Content Outline Revision Summary (Post-Survey)

In Domain 1: From primary domain 1, in tertiary areas 1.A.1.-1.A.4., concerning anatomical pain pathways, the panel opted to remove all the tertiary domains and change the subdomain name to include "functional." Panelists felt that the tertiary levels were misleading, in that they were not strictly anatomical, and that they would not add useful guidance for examinees. The panel opted to remove tertiary domain 1.C.5., genetic/epigenetic, considering that the topic was possibly more relevant to research than to day-to-day pain practice. Regarding subdomain I.D., biopsychosocial factors influencing pain, panelists felt strongly that consideration of biopsychosocial factors was too universally supported by pain organizations to be removed. Tertiary areas did not all appear equally relevant to treatment, so the panel agreed to remove the tertiary levels and add a short parenthetical list of examples to the subdomain heading.

In Domain 3: From primary domain 3, subdomain 3.B., screening tools for health history, panelists believed the tertiary levels were lower rated because too detailed, and opted to remove all of them again, again adding a short parenthetical list of examples to the subdomain. The panel maintained tertiary areas 3.D.3. and 3.D.7., on EMG/NCV and other diagnostic studies, respectively, because of their importance and how close the average ratings were to the 3.0 cutoff. In subdomain 3.G., the panel opted to keep the legal/ethical tertiary domain as too important for patient care to remove. For the reimbursement tertiary level, panelists surmised that survey respondents might have considered it less important if they were not involved in billing and opted to include reimbursement in examples for 3.G. instead, for reduced emphasis.

In Domain 4: From primary domain 4, the panel opted to maintain 4.N, supplements, as failure to know about interactions can cause patient harm. In primary domain 5, the panel kept subdomains on regeneration, neuromodulation, and palliative care because of their growing importance in training, care, and referral.

Content Weights: Panelist reviewed possible weightings for each domain based on two methods: multiplying the average frequency and criticality ratings, and directly asking survey respondents about their preferred weightings. Panelists also discussed the current outline's domain weights. After deliberation, they agreed that the survey-based results provided a more accurate reflection of the appropriate weightings than those calculated from frequency and criticality averages. Therefore, the panel suggested the following weights for the five main domains presented in Table 1.

Table 1. NSPM-C Domains and Content Weights

Domain	Current Weight	New Weights
I: Anatomy, Physiology and Pathophysiology of Pain	19%	20%
II: Imaging Equipment and Radiation Safety	11%	15%
III: Assessment, Diagnosis and Plan of Care	24%+7% *	20%
IV: Pharmacology	19%	20%
V: Interventional Pain Strategies	20%	25%

* Merged Professional Aspects (7%) in current outline with domain III.

Supplemental Material: Nonsurgical Pain Management (NSPM) Content Outline and Exam Blueprint Final Changes—January 8, 2026

Domain I: Anatomy, Physiology and Pathophysiology of Pain (20%)

- I.A. Anatomical and functional pain pathways
- I.B. Pain classifications and mechanisms (e.g., International Association for the Study of Pain [IASP] criteria)
 - I.B.1. Nociceptive
 - I.B.2. Neuropathic
 - I.B.3. Nociceptive
 - I.B.4. Somatic
 - I.B.5. Visceral
 - I.B.6. Referred
- I.C. Pathophysiology
 - I.C.1. Neurotransmitters
 - I.C.2. Inflammatory mediators
 - I.C.3. Pain syndromes
 - I.C.4. Aberrant anatomy
- I.D. Biopsychosocial factors influencing pain (e.g., comorbid, demographic, cultural, epidemiologic)

Domain II: Imaging Equipment and Radiation Safety (15%)

- II.A. Equipment essentials
 - II.A.1. Fluoroscopy equipment and radiation terminology
 - II.A.2. Ultrasound equipment and terminology
- II.B. Risk mitigation
 - II.B.1. Patient dose reduction
 - II.B.2. Shielding
 - II.B.3. Scatter reduction
 - II.B.4. ALARA
 - II.B.5. Exposure monitoring

Domain III: Assessment, Diagnosis and Plan of Care (20%)

- III.A. Health history
 - III.A.1. Subjective and objective findings
 - III.A.2. Red flag symptoms—identification and risk assessment
 - III.A.3. Coexisting conditions/comorbidities—identification and risk assessment
 - III.A.4. Substance use disorder—identification and risk assessment
- III.B. Screening tools for health history (e.g., function, pain scales, psychological, and opioid risk)
- III.C. Physical examination
 - III.C.1. General (e.g., appearance, vital signs, affect)
 - III.C.2. Musculoskeletal
 - III.C.3. Neurologic
 - III.C.4. Provocative testing
- III.D. Use and interpretation for diagnostic evaluation
 - III.D.1. MRI

- III.D.2. CT
- III.D.3. Electromyography/nerve conduction velocity (EMG/NCV)
- III.D.4. X-ray
- III.D.5. Ultrasound
- III.D.6. Laboratory tests
- III.D.7. Other diagnostic studies (e.g., discography, bone scan, positron emission tomography [PET], genetic testing)
- III.E. Identification of pain generator(s) (e.g., nerves, metabolic, joints, disc, facet, spine)
- III.F. Plan of care
 - III.F.1. Differential diagnosis
 - III.F.2. Treatment decisions (including shared decision making, patient goals, patient education, and expectation management)
 - III.F.3. Interprofessional collaboration, consultation and referral (e.g., nutritional, physical and/or occupational therapy, psychological, surgical, acupuncture)
 - III.F.4. Patient follow-up and treatment evaluation
- III.G. Professional aspects
 - III.G.1 Informed consent
 - III.G.2. Protection of patient rights
 - III.G.3. Medical necessity (e.g., prior authorizations, regulatory compliance, reimbursement)
 - III.G.4. Legal, statutory, regulatory, and ethical issues

Domain IV: Pharmacology (20%)

(Administration, mechanism of action, pharmacokinetics, pharmacodynamics, pharmacogenomics, drug interactions, adverse effects, indications/contraindications of the following)

- IV.A. Opioids (agonists, antagonists, mixed)
 - IV.A.1. Regulatory guidelines
 - IV.A.2. Controlled substance agreements
 - IV.A.3. Prescription drug monitoring program
 - IV.A.4. Opioid-induced constipation treatments
- IV.B. NSAIDs/antipyretic analgesics
- IV.C. Anticonvulsants
- IV.D. Antidepressants
- IV.E. Antimicrobials (e.g., prophylaxis or treatment for infection)
- IV.F. Anticoagulants/antiplatelets
- IV.G. Muscle relaxants
- IV.H. Local anesthetics
- IV.I. Corticosteroids
- IV.J. Contrast medium
- IV.K. NMDA receptor antagonists
- IV.L. Cannabinoids
- IV.M. Other medications (e.g., bisphosphonates, topical medications, α_2 -agonists, botulinum toxin, migraine medications)
- IV.N. Supplements

Domain V: Interventional Pain Strategies (25%)

- V.A. Neuraxial principles and techniques
 - V.A.1. Anatomical considerations
 - V.A.2. Interventions with ultrasound
 - V.A.3. Interventions with fluoroscopy
- V.B. Peripheral principles and techniques
 - V.B.1. Anatomical considerations
 - V.B.2. Interventions with ultrasound
 - V.B.3. Interventions with fluoroscopy
- V.C. Neuroablative principles and techniques
 - V.C.1. Anatomical considerations
 - V.C.2. Interventions with ultrasound
 - V.C.3. Interventions with fluoroscopy
- V.D. Regenerative treatment principles (e.g., biologics, prolotherapy)
- V.E. Neuromodulation principles (e.g., neurostimulation and intrathecal pumps)
- V.F. Prevention, identification, and treatment of interventional complications
- V.G. Palliative and end-of-life management (e.g., neurolytic blocks, indwelling catheters)