



# Spine Certificate Program

Participant Handbook

American Association of Neuroscience Nurses and  
American Board of Neuroscience Nursing

July 2025

## PROGRAM DESCRIPTION

The *Certificate Program for the Spine Healthcare Professional* is an assessment-based certificate program that uses instructional design principles to deliver an online self-study educational course followed by post-assessments. This course will equip participants with the tools to safely care for patients with spinal disease or injury, while providing quality care demanded by healthcare organizations, regulatory agencies, and patients. Participants will earn CE contact hours and an American Board of Neuroscience Nursing (ABNN) certificate of added qualification that indicates attainment of knowledge upon successful completion of the course.

The primary purpose of this certificate program is to provide foundational knowledge and evidence-based care for patients who have disease or injury of the spine, and require medical and/or surgical treatment.

**The program consists of eight (8) online modules**, presented sequentially with a post-test at the end of the program. A detailed course outline is available at the end of the handbook. Customers who purchase and complete the 8-module program will earn the certificate as a ***Spine Healthcare Professional***.

- **Module I** – Introduction to Spine
- **Module II** – Spine Disorders
- **Module III** – Diagnosis and Assessment
- **Module IV** – Management and Treatment
- **Module V** – Pain Management
- **Module VI** – Education and Self-Management
- **Module VII** – Special Populations
- **Module VIII** – Quality Measures for Spine Programs

Participants will have access to the modules, course, and post-assessments for **six (6) months**. There is no time limit to complete a module. Participants may navigate forward and backwards through the courses to review any content. Handouts are available for download once purchased. It is advisable to use these slides to enhance your learning.

## PROGRAM DEVELOPMENT/HISTORY

In 2022, the American Association of Neuroscience Nurses (AANN) and the American Board of Neuroscience Nursing (ABNN) identified the need for an educational course and assessment specific to nurses working with spine patients. The 2 organizations approved the collaboration on the development of the Certificate Program for the Spine Healthcare Professional. AANN is solely responsible for the development of educational content. ABNN is solely responsible for the development of the post-assessments and the certificate of added qualification.

The Editor and Mentee Editor were identified as Subject Matter Experts (SMEs) to develop the content outline of the program using their expertise and knowledge in the field as a basis for development. Additional SMEs were then selected as Contributors to re-validate that the content for the program was relevant, comprehensive, and inclusive for professionals working in the Spine healthcare environment. AANN Contributors developed the modules based on the content outline using current references to ensure that program covers all fundamental spine care concepts.

Knowledge Checks and the Post-Assessment were developed by ABNN item writers who were selected based on their expertise in writing items for the Certified Neuroscience Registered Nurse (CNRN) and Stroke Certified Registered Nurse (SCRN) examinations. All item writers were trained on evaluation principles as well as writing sound items. Once items were developed, they were reviewed to ensure content accuracy, proper citation for each item, and appropriate number of items based on the length of each module. Items were also evaluated for terminology, phrases, idioms, and

language that may be sexist or racist, or may offend or discriminate against any legally protected subgroup in the candidate population.

## COURSE REQUIREMENTS

There are no eligibility requirements to participate in the program, however, the target audience for this course is nurses who have an interest and understanding of care of patients with spinal disease or injury. It provides a comprehensive curriculum and builds on a foundation of spine knowledge, with the learner earning a certificate of added qualification upon successful completion.

## LEARNING OBJECTIVES

At the completion of this activity, the learner will be able to:

- Differentiate between normal and pathologic spinal anatomy.
- Compare and contrast common spinal disorders.
- Assess diagnostic testing for the individual presenting with spinal injury or disease.
- Describe the medical and surgical options available for the individual with spinal injury or disease.
- Summarize treatment options for acute, subacute, and chronic pain in the context of patients with spinal injury or disease.
- Formulate an education plan across the continuum of care for individuals and families undergoing treatment of spinal injury or disease.
- Describe key differences in the assessment, diagnosis, and management of spinal injury or disease in special patient populations.
- Understand the components to develop a Comprehensive Spine Center.

## PROGRAM ADMINISTRATION

- Self-paced online program with downloadable PDF files of presentations
- Access to the course and post-assessment throughout a 6-month window
- Knowledge checks and interactions throughout each module to assess whether learning objectives have been met
- Final post-assessment when modules have been completed
- Final evaluation of the program upon completion

## KNOWLEDGE CHECKS/POST-ASSESSMENTS

Each module contains interactions or knowledge checks to assess if the learning objectives for the course have been met. There will be a final post-assessment once all modules have been completed. The post-assessment questions are multiple-choice, single answer. Learners must pass the post-assessment with an average score of >80%. If the learner does not pass, they can access the modules again, going back to review materials and then test again. Participants will have three (3) chances to successfully pass the post-assessment. The post-assessment for those taking the program will be **75 items** in length and only include content related to those modules.

## EXPECTED OUTCOMES

Upon completion of this activity, the participant will demonstrate knowledge of spine care and management by passing the post-assessments with a score of >80%. To obtain CE contact hours and the certificate of added qualification, course participants must:

- Complete all of the course modules
- Successfully complete the post-assessment with a score of 80% or higher
- Submit the course evaluation

It is important to adhere to all aspects of the AANN Educational Integrity statement as well.

## CERTIFICATE OF ADDED QUALIFICATION and CE

Participants who complete the course and pass all assessments will have earned a **certificate of added qualification** as a **Spine Healthcare Professional**. The recipients of this credential may represent themselves as a “certificate holder as a Spine Healthcare Professional.”

Participants will also receive **10 CE contact hours** and a certificate of completion from AANN upon completion of the program.\*

*\*The American Association of Neuroscience Nurses (AANN) is accredited as a provider with distinction of nursing continuing professional development by the American Nurses Credentialing Center's Commission on Accreditation in Nursing Continuing Professional Development. The American Association of Neuroscience Nurses is accredited as a provider of continuing education by the California Board of Registered Nursing (CEP:13331)*

## RENEWAL

The Certificate for the Spine Healthcare Professional must be renewed every **three (3) years** to ensure that your spine knowledge stays current and you are continuing to progress as an experienced spine healthcare professional. To renew the certificate, the candidate must complete **at least 25 continuing education hours** related to spine during the 3-year cycle. The renewal must be successfully completed by December 31<sup>st</sup> of your third (3<sup>rd</sup>) year.

AANN and ABNN will provide reminder information in the middle of the year that the candidate is due to recertify; however, it is ultimately the responsibility of the candidate to complete the renewal process. The renewal course will not be available until June of your third (3<sup>rd</sup>) year.

## FEES

### Individual

Member Price	Non-member Price
\$300.00	\$450.00

**Facility/Group Purchases** – Institutions are eligible for a discount when you purchase 10 or more subscriptions to the Spine Certificate Program. Purchases of 10 or more will get 10% off. All group purchasing prices are based off the member rate of \$300.00.

Number of Subscriptions	% discount	Price per participant
10+	10% off	\$270.00

## **CANCELLATION/REFUND POLICY**

Purchase of the Certificate Program for Spine Healthcare Professional is intended for single person use by the person who purchased the course. Once the review course is purchased, no refunds will be issued.

## **COPYRIGHTED MATERIAL**

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## **CONTACT**

If there are any questions about the Certificate Program or the information provided in this handbook, please contact AANN at [info@aann.org](mailto:info@aann.org).

# SPINE CERTIFICATE PROGRAM OUTLINE

## MODULE I – INTRODUCTION TO SPINE (11 POST-ASSESSMENT ITEMS)

- A. Spinal Anatomy
- B. Contributing Factors
  - 1. Individual
    - a. Age
    - b. Increased BMI
    - c. Family history
    - d. Social history
  - 2. Structural
    - a. Trauma
    - b. Neurodegenerative processes
  - 3. Other
    - a. Infectious
    - b. Inflammatory
    - c. Neoplastic

## MODULE II – SPINE DISORDERS (10 POST-ASSESSMENT ITEMS)

- A. Epidemiology
  - a. Incidence and Prevalence of spinal disorders
  - b. Cost Burden
- B. Degenerative
  - 1. Herniated Nucleus Pulposus
  - 2. Spondylolisthesis
  - 3. Spinal Stenosis
  - 4. Osteoarthritis
  - 5. Degenerative Disc Disease
- C. Infectious
  - 1. Abscess
  - 2. Osteomyelitis
  - 3. Discitis
- D. Autoimmune/Inflammatory
  - a. Rheumatoid Arthritis
  - b. Ankylosing Spondylitis
  - c. Transverse Myelitis
  - d. Diffuse Idiopathic Skeletal Hyperostosis (DISH)
  - e. Ossification of Posterior Longitudinal Ligament (OPLL)
  - f. Ossification of Anterior Longitudinal Ligament (OALL)
- E. Oncologic
  - a. Primary (intradural-extramedullary; intramedullary)
  - b. Metastatic (usually extradural)
  - c. Lymphomas
  - d. Leukemia
  - e. Multiple myeloma
- F. Traumatic
  - 1. Vertebral Fractures

- a. Three column classification
  - b. Clinical examples of stable and unstable spines
- 2. Spinal Cord Injuries
  - a. Complete vs. Incomplete injuries
  - b. Anterior Cord Syndrome
  - c. Central Cord Syndrome
  - d. Posterior Cord Syndrome
  - e. Brown-Sequard Syndrome
  - f. Cauda Equina Syndrome
- G. Vascular
  - a. Spinal epidural hematoma
  - b. Aortic aneurysm
  - c. Spinal ischemic stroke
  - d. Spinal AVM

### **MODULE III – DIAGNOSIS AND ASSESSMENT (10 POST-ASSESSMENT ITEMS)**

- A. Diagnosis
  - 1. Spinal imaging
  - 2. Diagnostic testing
  - 3. Laboratory testing
- B. Assessment
  - 1. RN assessment
  - 2. APN assessment
- C. Level of Care
  - 1. Ambulatory
  - 2. Emergency Department
  - 3. Intensive Care Unit
  - 4. Intermediate/Step-down Unit
  - 5. General Neuroscience/Ortho Floor/MedSurg Floor
  - 6. Rehabilitation Unit

### **MODULE IV – MANAGEMENT AND TREATMENT (10 POST-ASSESSMENT ITEMS)**

- A. Medical
  - 1. Guidelines
  - 2. Conservative management
    - a. Medications
    - b. Physical therapy
    - c. Alternative treatment options
    - d. Orthosis
- B. Surgical
  - a. Discectomy
  - b. Laminectomy
  - c. Laminoplasty
  - d. Fusion
  - e. Instrumentation
  - f. Kyphoplasty/Vertebroplasty

## **MODULE V – PAIN MANAGEMENT (11 POST-ASSESSMENT ITEMS)**

- A. Acute
  - 1. Definition
  - 2. Assessment
  - 3. Management
- B. Chronic
  - 1. Definition
  - 2. Assessment
  - 3. Management
- C. Modalities
  - 1. Medications
  - 2. Pain pumps
  - 3. Epidural steroids
  - 4. Electrical stimulators
  - 5. Psychiatry

## **MODULE VI - EDUCATION AND SELF-MANAGEMENT (7 POST-ASSESSMENT ITEMS)**

- A. General patient & family education
  - a. Safety at home
  - b. Pain diaries
  - c. Medication adherence
  - d. Emergency contacts
- B. Preoperative considerations
  - a. Narcotic weaning
  - b. ERAS
- C. Postoperative considerations
  - 1. Employment
  - 2. Family Dynamics (when and how is a caregiver indicated)
  - 3. Loss of independence
  - 4. Wellness and mental health
    - a. Social engagement
    - b. Depression
    - c. Addiction

## **MODULE VII – SPECIAL POPULATIONS (10 POST-ASSESSMENT ITEMS)**

- A. Children
  - 1. Spinal Deformities
    - a. Congenital
    - b. Other
  - 2. Diagnosis and Assessment
  - 3. Treatment
- B. Women
  - 1. Medication choices
    - a. Initial pregnancy testing



- b. Best medication for women of childbearing age
- 2. Hormonal influences
  - a. Estrogen
  - b. Progesterone
  - c. Osteoporosis
- C. Elderly
  - 1. Drug Management
  - 2. Resources

## MODULE VIII – QUALITY MEASURES FOR SPINE PROGRAMS (6 POST-ASSESSMENT ITEMS)

- A. Best Practices in Spine Programs
- B. Developing a Comprehensive Spine Team
- C. Importance of an Interdisciplinary Team
- D. Patient Education and Care Coordination
  - 1. Patient Testing
    - a. Pre-admission education
    - b. Coordination with outpatient team for education
    - c. Diagnostic testing
  - 2. Presurgical
    - a. ERAS
    - b. Coordination of Referrals for Other Services
  - 3. Inpatient Care
  - 4. Discharge Planning and follow up care
- E. Quality Improvement Measures
  - a. Surgical Site Infection Rates
  - b. New Neurological Deficit
  - c. Unplanned Retuned Visit to the OR
  - d. Patient Reported Outcomes

## ADDITIONAL RESOURCES

### SPINE RESOURCES

- A. AANN – American Association of Neuroscience Nurses [www.aann.org](http://www.aann.org)
- B. NAON – National Association of Orthopedic Nurses [www.orthonurse.org](http://www.orthonurse.org)
- C. Pain
  - a. American Society for Pain Management Nursing [www.aspmn.org](http://www.aspmn.org)
  - b. International Nurses Society on Addiction [www.intsa.org](http://www.intsa.org)
- D. Association of periOperative Registered Nurses (AORN) [www.aorn.org](http://www.aorn.org)
- E. SCI
  - a. American Association of Spinal Cord Injury Nurses (AASCIN) [www.aascin.org](http://www.aascin.org)
  - b. Miami Project to Cure Paralysis [www.themiamiproject.org](http://www.themiamiproject.org)
  - c. Christopher and Dana Reeve Foundation [www.christopherreeve.org](http://www.christopherreeve.org)
- F. American Spine Registry [www.americanspineregistry.org](http://www.americanspineregistry.org)

- G. Association of Rehabilitation Nurses [www.rehabnurse.org](http://www.rehabnurse.org)
- H. Consortium for Spinal Cord Medicine <https://pva.org/research-resources/consortium-for-scm/>
- I. Academy of Spinal Cord Injury Professionals, Inc. <https://www.academyscipro.org/>
- J. Advanced Certification in Spine Surgery. <https://www.jointcommission.org/what-we-offer/certification/certifications-by-setting/hospital-certifications/orthopedic-certification/advanced-orthopedic/advanced-certification-in-spine-surgery/>

## GLOSSARY

The glossary is included as an attachment in the course.