

**Nebraska Credentialing Review for the Profession of  
NURSE PRACTITIONERS**

**Application Date: February 28, 2025**

**Submitted to the  
Nebraska Department of Health and Human Services  
By the Nebraska Nurse Practitioners**

## **Nurse Practitioner Fluoroscopy 407 Application**

### **Description of the Applicant Group and its Proposal**

#### **1. Provide the following information for the applicant group(s):**

#### **Name, Address, Telephone Number, E-mail Address and Website of the Applicant Group in Nebraska and any National Parent Organization**

Applicant Group:

#### **Nebraska Nurse Practitioners (NNP)**

PO Box 1468

Scottsbluff, NE 69363

kwennernp@gmail.com

<https://nebraskanp.enpnetwork.com>

National Parent Organization of NNP:

#### **American Association of Nurse Practitioners (AANP)**

AANP Office of Government Affairs

1400 Crystal Drive

Suite 540

Arlington, VA 22202

Fax: 703-740-2533

<https://www.aanp.org>

#### **Composition of the Group and Approximate Number of Members in Nebraska; and Relationship of the Group to the Occupation Dealt with in the Application.**

The Nebraska Nurse Practitioners (NNP) is the primary professional organization of our state for Master's or Doctorate level educated nurse practitioners. NNP is a non-profit organization established in 1982. The purpose of the organization is to promote, develop and support the role of the nurse practitioner within the state of Nebraska through high standards of clinical practice, professional leadership, representation, legislation affecting health care, continuing education and peer support.

Nurse practitioners are the largest group of advanced practice nurses and are employed in many diverse practice areas in Nebraska. The organization is open to students and retirees. Over 300 members comprise the organization and there are over 2,000 nurse practitioners licensed in Nebraska.

A comprehensive list of licensed nurse practitioners in Nebraska and their contact information is available upon request from the Nebraska Board of Nursing.

**Nebraska Board of Nursing; Advanced Practice Registered Nurse Board**

**Ann Oertwich, PhD, MSN, RN, Executive Director**

DHHS, Division of Public Health, Licensure Unit

301 Centennial Mall South

Lincoln, NE 68509

402-471-4376

Fax: 402-742-2360

**2. Identify by title, address, telephone number, e-mail address, and website of any other groups, associations, or organizations in Nebraska whose membership consists of any of the following:**

**2a. Members of the Same Occupation or Profession as that of the Applicant Group:**

Nurse practitioners (NPs) are one of four groups licensed as Advanced Practice Registered Nurses (APRNs) in the state of Nebraska, regulated by the Board of Nursing, with an APRN Board reviewing disciplinary actions.

This application is made on behalf of nurse practitioners (NPs) in Nebraska.

**2b. Members of the Occupation Dealt with in the Application:**

Nurse practitioners are the only occupation addressed in this application. The other Advanced Practice Registered Nurses (APRNs) are not included.

**2c. Employers of the Occupation Dealt with in the Application (Hospitals and other types of healthcare facilities are potential employers of NPs):**

Nurse practitioners work in a wide variety of practice settings. Employers may include private or public hospitals, facilities, physicians, specialty groups, for-profit or nonprofit organizations, or self-employment.

**Nebraska Hospital Association**

3255 Salt Creek Circle, Suite 110,

Lincoln, NE, 68504

402- 742-8140

[info@nebraskahospitals.org](mailto:info@nebraskahospitals.org)

**Nebraska Association of Independent Ambulatory Centers**

9850 Nicholas St.

Omaha, NE 68114

**2d. Practitioners of the Occupations Similar to or Working Closely with Members of the Occupation dealt with in the Application:**

Physicians and Surgeons of all specialties, Chiropractors, Podiatrists, Physician Assistants, Certified Registered Nurse Anesthetists, Radiology Technologists.

**Nebraska Medical Association**

1045 Lincoln Mall, Suite 200  
Lincoln, Nebraska 68508-2966  
402- 474-4472  
<https://www.nebmed.org>

**Nebraska Society of Anesthesiologists**

1045 Lincoln Mall, Suite 200  
Lincoln, NE 68502  
402- 474-4472  
[carmencg@nebmed.org](mailto:carmencg@nebmed.org)

**Nebraska Academy of Physician Assistants**

8700 Executive Woods Dr, Suite 400  
Lincoln, NE 68512-9612  
402-476-1528

**Nebraska Association of Nurse Anesthetists**

3901 Normal Blvd STE 100, Lincoln, NE 68506  
(402) 476-3852

**Nebraska Society of Radiology Technologists**

P.O. Box 6103  
Lincoln, NE 68506  
402-405-4830  
[nsrtofc@gmail.com](mailto:nsrtofc@gmail.com)

**2e. Educators or Trainers of Prospective Members of the Occupation Dealt with in the Application:**

There are approximately 400 academic institutions with NP programs in the U.S. Programs are for a Master's Degree (MSN) or Doctorate of Nursing Practice (DNP).

Currently there are 4 nationally accredited academic programs for nurse practitioners in Nebraska: Clarkson College, Creighton University, University of Nebraska Medical Center and Methodist College. All are recognized by the U.S. Department of Education.

**Clarkson College**

101 S. 42nd St.  
Omaha, NE 68131  
402- 552-3100  
admiss@clarksoncollege.edu  
[www.clarksoncollege.edu](http://www.clarksoncollege.edu)

**Creighton University**

School of Nursing, Omaha Campus  
(Campuses in Omaha and Hastings)  
2500 California Plaza  
Omaha, NE 68178  
402- 280-2700  
[info@creighton.edu](mailto:info@creighton.edu)  
[www.creighton.edu](http://www.creighton.edu)

**University of Nebraska Medical Center**

College of Nursing  
985330 Nebraska Medical Center  
4111 Dewey Avenue  
Omaha, NE 68198  
402-559-4000  
[benjamin.schultz@unmc.edu](mailto:benjamin.schultz@unmc.edu)  
<http://www.unmc.edu/nursing>  
Campuses in Omaha, Lincoln, Norfolk, Kearney, and Scottsbluff

**Nebraska Methodist College**

Nebraska Methodist College Admissions Office  
720 North 87th Street  
Omaha, NE, 68114  
402- 354-7200  
[admissions@methodistcollege.edu](mailto:admissions@methodistcollege.edu)

*\*\*American Association of Colleges of Nursing (AACN). (2021). 2020-2021 Enrollment and Graduations in Baccalaureate and Graduate Programs in Nursing. Washington, DC: AACN.*

**2f. Citizens Familiar with or Utilizing the Services of the Occupation Dealt with in the Application (e.g., Advisory Groups, Patient Rights Groups, Volunteer Agencies for Particular Disease or Conditions etc.):**

Most citizens of Nebraska are familiar with and utilize services provided by nurse practitioners. Several patient advocacy groups for a myriad of chronic illnesses also are familiar with nurse practitioners (e.g. American Cancer Association, American Diabetic Association, Multiple Sclerosis Association, Rheumatoid Arthritis-Autoimmune Association, various patients' rights groups, Center for Caring). Estimated 1.06 billion patient visits in 2021 by Nurse Practitioners American Association of Nurse Practitioners estimated 1.06 billion patient visits in 2021 by Nurse Practitioners.

**2g. Any other Group that would have an interest in the Application:**

Please see Sections 2c and 2d.

**3. If the profession is currently credentialed in Nebraska, provide the current scope of practice of this occupation as set forth in the state statutes. If a change in this scope of practice is being requested, identify that change. This description of the desired scope of practice constitutes the proposal. The application comprises the documentation and other materials that are provided in support of the proposal.**

The Nurse Practitioner Practice Act (Appendix F) identifies the following as the scope of practice for NPs:

**38-2315. Nurse practitioner; functions; scope.**

(1) A nurse practitioner may provide health care services within specialty areas. A nurse practitioner shall function by establishing collaborative, consultative, and referral networks as appropriate with other health care professionals. Patients who require care beyond the scope of practice of a nurse practitioner shall be referred to an appropriate health care provider.

(2) Nurse practitioner practice means health promotion, health supervision, illness prevention and diagnosis, treatment, and management of common health problems and acute and chronic conditions, including:

(a) Assessing patients, ordering diagnostic tests and therapeutic treatments, synthesizing and analyzing data, and applying advanced nursing principles;

(b) Dispensing, incident to practice only, sample medications which are provided by the manufacturer and are provided at no charge to the patient; and

(c) Prescribing therapeutic measures and medications relating to health conditions within the scope of practice.

(3) A nurse practitioner who has proof of a current certification from an approved certification program in a psychiatric or mental health specialty may manage the care of patients committed under the Nebraska Mental Health Commitment Act. Patients who require care beyond the scope of practice of a nurse practitioner who has proof of a current certification from an approved certification program in a psychiatric or mental health specialty shall be referred to an appropriate health care provider.

(4) A nurse practitioner may pronounce death and may complete and sign death certificates and any other forms if such acts are within the scope of practice of the nurse practitioner and are not otherwise prohibited by law. Source: Laws 1981, LB 379, § 18; Laws 1984, LB 724, § 14; Laws 1996, LB 414, § 25; Laws 2000, LB 1115, § 44; Laws 2005, LB 256, § 57; Laws 2006, LB 994, § 96; R.S.Supp.,2006, § 71-1721; Laws 2007, LB463, § 807; Laws 2012, LB1042, § 2; Laws 2013, LB243, § 1; Laws 2015, LB107, § 5.

### **38-2317. Nurse practitioner; licensure; requirements.**

(1) An applicant for licensure under the Advanced Practice Registered Nurse Practice Act to practice as a nurse practitioner shall have:

(a) A license as a registered nurse in the State of Nebraska or the authority based upon the Nurse Licensure Compact to practice as a registered nurse in Nebraska;

(b) Evidence of having successfully completed a graduate-level program in the clinical specialty area of nurse practitioner practice, which program is accredited by a national accrediting body;

(c) Proof of having passed an examination pertaining to the specific nurse practitioner role in nursing adopted or approved by the board with the approval of the department. Such examination may include any recognized national credentialing examination for nurse practitioners conducted by an approved certifying body which administers an approved certification program; and

(d) Evidence of completion of two thousand hours of practice as a nurse practitioner which have been completed under a transition-to-practice agreement, under a collaborative agreement, under an integrated practice agreement, through independent practice, or under any combination of such agreements and practice, as allowed in this state or another state.

(2) If more than five years have elapsed since the completion of the nurse practitioner program or since the applicant has practiced in the specific nurse practitioner role, the applicant shall meet the requirements in subsection (1) of this section and provide evidence of continuing competency as required by the board. Source: Laws 1981, LB 379, § 19; Laws 1984, LB 724, § 20; Laws 1986, LB 926, § 55; Laws 1993, LB 536, § 70; Laws 1996, LB 414, § 30; Laws 1997, LB 752, § 173; Laws 2000, LB 1115, § 46; Laws 2002, LB 1021, § 57; Laws 2003, LB 242, § 101; Laws 2005, LB 256, § 59;

R.S.Supp.,2006, § 71-1722; Laws 2007, LB185, § 6; Laws 2007, LB463, § 809; Laws 2017, LB88, § 78. Operative Date: April 26, 2017

### **Restriction-**

The Nebraska Board of Radiography recognizes a “Licensed Practitioner” as a person licensed to practice medicine, dentistry, podiatry, chiropractic, osteopathic medicine and surgery, or as an osteopathic physician.

A “licensed practitioner” may perform and supervise fluoroscopy without any further training requirements set forth by the state.

Nurse practitioners are not recognized as a “licensed practitioner”. This was not an intentional statutory limitation. Per the Board of Radiography, the statute was created in the 1980s before NPs were prevalent and practicing in Nebraska.

This statute limited certified registered nurse anesthetists (CRNAs) until they underwent the 407 process and legislative changes were made. However, the statute was not revised and remains a barrier for current nurse practitioner practices.

The unintentional prohibition of nurse practitioners to supervise/perform fluoroscopy limits hiring and patient’s access to specialized care (especially in rural communities) including:

- Emergency departments
- Interventional radiology
- Urology
- Neurosurgery
- Orthopedic surgery
- Infertility/IVF clinic
- Pain management
- Surgical first assisting

Nurse practitioners, like physician assistants and certified nurse anesthetists who can perform fluoroscopy in this state, are advanced practice providers. Our training, education and employment statewide (especially in rural areas that often have few or no physicians) positions us well for the ability to supervise and perform fluoroscopy. Our commitment to patient safety is paramount to our practice and we take seriously the responsibilities that come with seeking this change.

### **Proposed change-**

NNP proposes to update the Medical Radiography Statute to include nurse practitioners as “licensed providers”. This would allow nurse practitioners to supervise and/or perform fluoroscopy after didactic and clinical training requirements have been met.



Specific training and education requirements will be established as an addendum to the statute following the same process as the CRNAs. This has proven safe and effective as no adverse effects or reported patient harm has occurred. NNP proposes a minimum of 4 hours of post graduate didactic education in fluoroscopy which includes: radiation safety, radiation production and characteristics, radiobiology, contrast media, and fluoroscopic unit operation. Subsequently, clinical training must include a minimum of five fluoroscopic procedures under the supervision of a formally trained preceptor (e.g. medical physicist, radiologist, or other properly trained and licensed physician). With each license renewal, a nurse practitioner who utilizes fluoroscopy must have a minimum of 1 hour of continuing education (CME) in fluoroscopy.

NNP recommends this as the minimum regulatory requirement by the state of Nebraska to ensure that the practitioner is competent to perform/ supervise fluoroscopy in a safe manner. NNP recognizes each facility where fluoroscopy is performed will have regulations and oversight that are set forth by medical privileges and may require additional training. NNP does not recommend unnecessary regulatory burdens by the state of Nebraska as granted to other “licensed providers” under the Medical Radiography Statute. Facility/organizational regulation of fluoroscopy has demonstrated to be safe, effective and with no reported harm to patients in Nebraska.

**4. If the profession is not currently credentialed in Nebraska, describe the proposed credential and the proposed scope of practice, and / or the proposed functions and procedures of the group to be reviewed. This description of the desired scope of practice and the proposed credential constitute the core of the proposal. Also, please describe how the proposal would be administered. The application comprises the documentation and other materials that are provided in support of the proposal.**

N/A.

**5) Describe in detail the functions typically performed by practitioners of this occupation and identify what, if any specific statutory limitations have been placed on these functions, and if possible, explain why the Legislature created these restrictions.**

#### Functions

Nurse practitioners are prepared at the master’s or doctoral level to provide primary, acute, chronic and specialty care to patients of all ages and backgrounds.

The American Association of Nurse Practitioners (AANP) provides the following description of the functions of the NP in their Standards of Practice, identified as The Process of Care.

The nurse practitioner utilizes the scientific process and national standards of care as a framework for managing patient care. This process includes:

A. Assessment of health status. The nurse practitioner assesses health status by:

- obtaining a relevant health and medical history
- performing a physical examination based on age and history
- performing or ordering preventative and diagnostic procedures based on the patient's age and history
- identifying health and medical risk factors

B. Diagnosis. The nurse practitioner makes a diagnosis by:

- utilizing critical thinking in the diagnostic process
- synthesizing and analyzing the collected data
- formulating a differential diagnosis based on the history, physical examination, and diagnostic test results
- establishing priorities to meet the health and medical needs of the individual, family, or community

C. Development of a treatment plan. The nurse practitioner, together with the patient and family, establishes an evidence-based, mutually acceptable, cost-awareness plan of care that maximizes health potential.

Formulation of the treatment plan includes:

- ordering and interpreting additional diagnostic tests
- prescribing/ordering appropriate pharmacologic and nonpharmacologic interventions
- developing a patient education plan
- appropriate consultation/referral

D. Implementation of the plan. Interventions are based upon established priorities.

Actions by the nurse practitioner are:

- individualized
- consistent with the appropriate plan of care
- based on scientific principles, theoretical knowledge, and clinical expertise
- consistent with teaching and learning opportunities

Actions include:

- accurately conducting supervising, and interpreting diagnostic tests
- prescribing/ordering pharmacologic agents and nonpharmacologic therapies

- providing relevant patient education
- making appropriate referrals to other health professionals and community agencies

E. Follow-up and evaluation of the patient status. The nurse practitioner maintains a process for systematic follow-up by:

- determining the effectiveness of the treatment plan with documentation of patient care outcomes
- reassessing and modifying the plan with the patient and family as necessary to achieve health and medical goals. (AANP, Standards of Practice for Nurse Practitioners, 2010)

## **6. Identify other occupations that perform some of the same functions or similar functions.**

Interventional Radiologists, Anesthesiologists, Physicians, Surgeons, Physician Assistants (PAs), Chiropractors, Podiatrists and Dentists may supervise and/or perform fluoroscopy. Radiation Technologists (Rad Techs) perform fluoroscopy under supervision of the licensed practitioners listed. Certified Registered Nurse Anesthetists (CRNAs) may supervise fluoroscopy in conjunction with a radiation technologist.

## **7. What functions are unique to this occupation? What distinguishes this occupation from those identified in question 6?**

Nurse practitioner and physician assistants are both considered advanced practice providers or physician extenders and fulfill many of the same roles/functions. The difference is licensure and education requirements. Historically, physician assistants required supervision from a physician for licensure, but regulations have changed and are practitioner training, experience, and location dependent.

Physician assistants are regulated by the Board of Medicine therefore included in the "licensed practitioner" statute. Nurse practitioners are regulated under the Board of Nursing. Certified registered nurse anesthetists and nurse practitioners are both advanced practice nurses with different specialty training, practice roles and population focus. As previously mentioned, CRNAs underwent a 407 to add fluoroscopy to their scope of practice and established post graduate training requirements.

Nurse practitioners may or may not have received specific training in fluoroscopy during their formal education. This may also be the case for other practitioners: PAs, CRNAs, and non-radiology physicians. Therefore, those who utilize fluoroscopy in their practice seek post-graduate education, training, and collaboration which is the basis of our proposal.

Nurse practitioners are unique as they may have worked at the hospital or in a specialty setting as a nurse prior to their advanced education and training. This generates a foundation of knowledge, skillset and expertise from which to build upon. This creates

staff retention and a specialization of care which communities, especially rural, struggle to attain.

With the current restriction to fluoroscopy, nurse practitioners cannot be employed in these specialty roles and are either leaving the state or finding a different specialty. One example, a Nurse Practitioner worked in interventional radiology as a registered nurse in a rural community prior to her advanced degree. The Interventional Radiologist sought to employ her as a nurse practitioner to perform procedures using fluoroscopy. Both learned this was not possible due to the current statute in Nebraska, regardless of how much supervision, education, and advanced training the NP would obtain. The NP was given the option of practicing interventional radiology in Colorado instead which resulted in a huge loss of expertise to the facility and community.

**8. Identify other occupations whose members regularly supervise members of this occupation, as well as other occupations whose members are regularly supervised by this occupation. Describe the nature of the supervision that occurs in each of these practice situations.**

Physicians and surgeons regularly supervise this occupation. Nurse practitioners supervise and collaborate with physical, occupational, speech and respiratory therapists, radiology technologists, registered nurses, scrub technicians and all ancillary healthcare staff. The supervision relates to orders, prescriptions, and patient care.

**9. What actions, judgments, and procedures of this occupation can typically be carried out without supervision or order? To what extent is this occupation, or portions of its practice, autonomous?**

In Nebraska, nurse practitioners have “Full Practice Authority”. A new graduate NP must have a 2000-hour collaborative agreement with either a Physician or Nurse Practitioner (who has at least 5 years of experience). After that time, a collaborative agreement is not required by the state.

Collaboration with physicians and other healthcare providers/specialists is a requirement of professionalism and provision of safe patient care. In specialty areas where fluoroscopy is utilized there is physician/surgeon supervision, collaboration and oversight. While nurse practitioners are not required by the state to have a collaborative practice agreement, hospital privileges and practice settings are contingent upon physician supervision and collaboration. Our 407 proposal recommends the state barrier be removed for nurse practitioners and fluoroscopy. This allows the institutions and fluoroscopy equipment owners to set forth the supervision requirements as done for all other “licensed practitioners” in Nebraska and in other states where NPs utilize fluoroscopy.

**10. Approximately how many people are performing the functions of this occupation in Nebraska, or are presenting themselves as members of this occupation? To what extent are these people credentialed in Nebraska?**

Nurse practitioners in Nebraska are not performing fluoroscopy at this time. Currently, 22 other states allow nurse practitioners to perform/supervise fluoroscopy. States in proximity to Nebraska include: Iowa, Wyoming, Colorado, and North/South Dakota.

**11. Describe the general level of education and training possessed by practitioners of this occupation, including any supervised internship or fieldwork required for credentialing. Typically, how is this education and training acquired?**

See Section 5 for description of education and training.

**12. Identify the work settings typical of this occupation (e.g., hospitals, private physicians' offices, clinics, etc.) and identify the predominant practice situations of practitioners, including typical employers for practitioners not self-employed (e.g., private physician, dentist, optometrist, etc.).**

See Section 5.

**13. Do practitioners routinely serve members of the general population? Are services frequently restricted to certain segments of the population (e.g., senior citizens, pregnant women, etc.)? If so, please specify the type of population served.**

Nurse practitioners routinely serve all segments of the population but may have age restrictions or expanded specialty areas determined by board certification.

**14. Identify the typical reasons a person would have for using the services of a practitioner. Are there specific illnesses, conditions or situations that would be likely to require the services of a practitioner? If so, please specify**

Nurse practitioners provide services for all facets of healthcare in the state of Nebraska. Services specifically where fluoroscopy might be utilized include: fracture and joint reductions, interventional/diagnostic procedures, specialty interventions for urology, pediatrics, cardiology, orthopedics, fertility treatment, guidance in the operating room with assistance to surgeons across multiple specialties.

**15. Identify typical referral patterns to and from members of this occupational group. What are the most common reasons for referral?**

Nurse practitioners are a diverse group and referral patterns would be dependent upon specialty, practice settings, insurance and healthcare networks etc.

**16. Is a prescription or order from a practitioner of another health occupation necessary in order for services to be provided?**

Not necessarily but will be dependent upon specialty, clinical setting, and facility

requirements.

**17. How is the continuing competence of credentialed practitioners evaluated?**

Employers and healthcare facilities have guidelines and processes for evaluation of the nurse practitioner. Competency is evaluated for hospital/facility privileges and at each renewal cycle which is typically every 2 years. Each NP is subject to the continuing education requirement for maintaining state licensure and board certification discussed in the response to question 18. If there is a question of competency, several reporting mechanisms exist through employers, Nebraska Board of Nursing and DHHS.

**18. What requirements must the practitioner meet before his or her credentials may be renewed?**

RN and NP licenses are renewed every two (2) years per Nebraska Statute. Continuing medical education is required both for license renewal and renewal of Board Certification. Board Certification is renewed every 5 years.

**19. Identify other jurisdictions (states, territories, possessions, or the District of Columbia) wherein this occupation is currently regulated by the government, and the scopes of practice typical for this occupation in these jurisdictions.**

Twenty-two other states allow nurse practitioners to utilize fluoroscopy. Each state dictates its own government regulated training and educational requirements.

**Additional Questions:**

**Additional Question an Applicant Group Must Answer about their Proposal:**

**1a) What is the problem created by not regulating the health professional group under review, or by not changing the scope of practice of the professional group under review?**

The outdated Medical Radiography Statute does not reflect current practices of nurse practitioners and creates several issues. First, specialty physicians face challenges in hiring NPs for essential roles, limiting the ability to provide specialty care in Nebraska. Second, NPs are restricted from performing critical functions necessary to meet established standards of care. This inconsistency can lead to variable quality of care, particularly in critical access hospitals, where resources are already stretched. Lastly, nurse practitioners who have specialized and provided/assisted with fluoroscopic procedures in other states, cannot bring their expertise here.

**2a) If the proposal is for the regulation of a health professional group not previously regulated, all feasible methods of regulation, including those methods listed below, and the impact of such methods on the public, must be considered. For each of the following evaluate the feasibility of applying it to the profession and the extent to which the regulatory method would protect the public:**

**N/A**

- Inspection requirements.

- Injunctive relief.
- Regulating the business enterprise rather than individual providers.
- Regulating or modifying the regulation of those who supervise the providers under review.
- Registering the providers under review.
- Certifying the providers under review by the State of Nebraska.
- Licensing the providers under review.

**3a) What is the benefit to the public of regulating the health professional group under review or changing the scope of practice of the regulated health profession under review?**

Nebraska would benefit from allowing nurse practitioners (NPs) to perform fluoroscopy for several reasons:

1. **Increased Access to Care:** Allowing NPs to perform fluoroscopy can improve access to diagnostic imaging and procedures, especially in rural and underserved areas where medical specialists may be scarce.
2. **Efficiency in Healthcare Delivery:** NPs can streamline patient care by managing imaging procedures directly, reducing wait times for patients and relieving some burden on radiologists, physicians and surgeons.
3. **Cost-Effectiveness:** Utilizing NPs for fluoroscopy can potentially lower healthcare costs by minimizing the need for specialist referrals and optimizing resource use within healthcare systems such as reducing patient transfers from critical access emergency rooms.
4. **Quality of Care:** NPs are highly trained professionals who can provide high-quality care, and their involvement in fluoroscopy could enhance patient outcomes through timely interventions and better follow-up.
5. **Workforce Utilization:** With a growing demand for healthcare services, expanding the scope of practice for NPs can help address workforce shortages and ensure that more patients receive necessary specialty services.

Overall, allowing NPs to perform fluoroscopy will enhance healthcare delivery, improve patient access, optimize the use of healthcare professionals in the state and increase the appeal for specialty healthcare providers to practice in Nebraska.

**4a) What is the extent to which the proposed regulation or the proposed change in scope of practice might harm the public?**

While small, there is an increased risk of harm from higher exposure and dosages of radiation. Prolonged fluoroscopy can cause tissue burns, hair loss and add to

cumulative risk of cancer. This can be safely mitigated through education and training. This is self-evident by the low instance of harm from fluoroscopy in this state and others. Nurse practitioners routinely order radiation burdening diagnostics and are aware of the potential harm/risks to patients. With additional education and training, specifically in fluoroscopy, the risk of harm is minimized.

**5a) What standards exist or are proposed to ensure that a practitioner of the health professional group under review would maintain competency**

The Nebraska Department of Health and Human Services has the same responsibility in this case for enforcing such a requirement as it does for other professions, including physicians, physician assistants, podiatrists, chiropractors and dentists.

Fluoroscopy competency is overseen by the institutions and/or owner of the fluoroscopy equipment. This would be the same for nurse practitioners as it is for all other health care providers who perform/supervise fluoroscopy. Please see previous section for NNP proposal for the minimum requirements and ongoing education.

**6a) What is the current and proposed role and availability of third-party reimbursement for the services provided by the health professional group under review?**

NPs are recognized by the federal Centers for Medicare & Medicaid Services (CMS) as non-physician providers and are eligible for Medicaid and Medicare reimbursement under the care team/ACO and fee-for-service models. NPs are authorized to have Full Practice Authority to practice in any Veterans' Affairs hospital in the country, participate in the TRICARE system, and be reimbursed by private insurers.

**7a) What is the experience of other jurisdictions in regulating the practitioners affected by the proposal? Identify appropriate statistics on complaints, describing actions taken, etc., by jurisdictions where the profession is regulated.**

There are 22 other states that allow nurse practitioners to utilize fluoroscopy. Several of these border Nebraska including Iowa, Wyoming, Colorado and South Dakota. Our literature review did not find any instances of patient harm or complaints in these states. Several studies have recognized increasing Medicare reimbursement to nurse practitioners for fluoroscopic procedures without identified adverse outcomes or poor procedure results (Duszak et al., 2015). Please see the reference list below for data and statistics supporting nurse practitioners and fluoroscopy privileges in specialty areas across the country.

**8a) What are the expected costs of regulating the health professional group under review, including the impact of registration, certification, or licensure on the costs of services to the public? What are the expected costs to the state and to the general public of implementing the proposed legislation?**

There are no expected costs to the state or general public for regulation or



implementation of the proposed legislation. The nurse practitioner will be responsible for expenses of specialized education in fluoroscopy. The institutions will monitor hospital privileges in the same manner as for other healthcare professionals with no additional costs. The costs of licensure and regulation by the Nebraska Board of Nursing will be unchanged.

**9a) Is there any additional information that would be useful to the technical committee members in their review of the proposal?**

The decision by various states and major hospital systems to include fluoroscopy in nurse practitioners practice (NPs) highlights their ability to deliver safe, cost-effective care. Removing existing barriers will enhance patient access to healthcare and expand the specialty provider workforce, addressing current staffing shortages. By permitting NPs to provide fluoroscopy in Nebraska, we can establish essential training standards that safeguard public health. These updates will enable NPs to contribute to high-quality patient care while alleviating administrative burdens for both NPs, collaborating physicians, and healthcare organizations.

**References**

- Beach, D., Swischuk, J., & Smouse, H. (2006). Using Midlevel Providers in Interventional Radiology. *Seminars in Interventional Radiology*, 23(4), 329–332. <https://doi.org/10.1055/s-2006-957021>
- Crum, E., & Varma, M. (2019). Advanced Practice Professionals and an Outpatient Clinic: Improving Longitudinal Care in an Interventional Radiology Practice. *Seminars in Interventional Radiology*, 36(01), 013–016. <https://doi.org/10.1055/s-0039-1683357>
- Duszak, R., Walls, D. G., Wang, J. M., Hemingway, J., Hughes, D. R., Small, W. C., & Bowen, M. A. (2015). Expanding Roles of Nurse Practitioners and Physician Assistants As Providers of Nonvascular Invasive Radiology Procedures. *Journal of the American College of Radiology*, 12(3), 284–289. <https://doi.org/10.1016/j.jacr.2014.08.021>
- Fear, K. M., & Lofgren, M. (2017). Fluoroscopy Education Requirements Present Practice Barrier: A Collaborative Solution. *The Journal for Nurse Practitioners*, 13(4), 303–307. <https://doi.org/10.1016/j.nurpra.2016.11.021>
- Hansen, E., & Bozic, K. J. (2009). The Impact of Disruptive Innovations in Orthopaedics. *Clinical Orthopaedics & Related Research*, 467(10), 2512–2520. <https://doi.org/10.1007/s11999-009-0865-z>
- Hauschild, T. B., Fu, K. Y., Hipwell, R. C., Baraghoshi, G., Mone, M. C., Nirula, R., Kimball, E. J., & Barton, R. G. (2012). Safe, timely, convenient, and cost-

- effective: A single-center experience with bedside placement of enteral feeding tubes by midlevel providers using fluoroscopic guidance. *The American Journal of Surgery*, 204(6), 958–962. <https://doi.org/10.1016/j.amisurg.2012.07.025>
- Hawkins, C. M., Bowen, M. A., Gilliland, C. A., Walls, D. G., & Duszak, R. (2015). The Impact of Nonphysician Providers on Diagnostic and Interventional Radiology Practices: Operational and Educational Implications. *Journal of the American College of Radiology*, 12(9), 898–904. <https://doi.org/10.1016/j.jacr.2015.03.034>
- Herliczek, T. W. (2012). Pediatric radiology extenders: Boon or bust for radiology residents. *Pediatric Radiology*, 42(3), 293–295. <https://doi.org/10.1007/s00247-011-2286-x>
- Makeeva, V., Hawkins, C. M., Rosenkrantz, A. B., Hughes, D. R., Chaves, L., & Duszak, R. (2019). Diagnostic Imaging Examinations Interpreted by Nurse Practitioners and Physician Assistants: A National and State-Level Medicare Claims Analysis. *American Journal of Roentgenology*, 213(5), 992–997. <https://doi.org/10.2214/AJR.19.21306>
- Martin, R. (2023). Growing Pains of Nonphysician Providers in Radiology. *Current Problems in Diagnostic Radiology*, 52(3), 149–152. <https://doi.org/10.1067/j.cpradiol.2023.01.001>
- Nandwana, S. B., Walls, D. G., Ibraheem, O., Murphy, F., Tridandapani, S., & Cox, K. (2016). Beyond complications: Comparison of procedural differences and diagnostic success between nurse practitioners and radiologists performing image-guided renal biopsies. *Journal of the American Association of Nurse Practitioners*, 28(10), 554–558. <https://doi.org/10.1002/2327-6924.12376>
- Prior, L. (2022). Fluoroscopy Scope Expansion: Part 2. *Journal of Radiology Nursing*, 41(2), 69. <https://doi.org/10.1016/j.jradnu.2022.03.005>
- RiChard, J. L., Liu, B. P., Casalino, D. D., Russell, E. J., & Horowitz, J. M. (2017). Radiology Education of Physician Extenders. *Academic Radiology*, 24(5), 633–638. <https://doi.org/10.1016/j.acra.2016.11.018>
- Santavicca, S., Hughes, D. R., Rosenkrantz, A. B., Rubin, E., & Duszak, R. (2023). Professional Services Rendered by Nurse Practitioners and Physician Assistants Employed by Radiology Practices: Characteristics and Trends From 2017 Through 2019. *Journal of the American College of Radiology*, 20(2), 117–126. <https://doi.org/10.1016/j.jacr.2022.06.005>
- Schwegel, C., Rothman, N., Muller, K., Loria, S., Raunig, K., Fifi, J., Oxley, T., & Mocco, J. (2017). E-098 Optimizing utilization of nurse practitioners and addressing practice barriers in neurointerventional surgery. *Electronic Poster Abstracts*, A90.2-A90. <https://doi.org/10.1136/neurintsurg-2017-SNIS.170>

Schwegel, C., Rothman, N., Muller, K., Loria, S., Raunig, K., Rumsey, J., Fifi, J., Oxley, T., & Mocco, J. (2019). Meeting the evolving demands of neurointervention: Implementation and utilization of nurse practitioners. *Interventional Neuroradiology*, 25(2), 234–238. <https://doi.org/10.1177/1591019918802411>

Taylor, K., Sansivero, G. E., & Ray, C. E. (2012). The Role of the Nurse Practitioner in Interventional Radiology. *Journal of Vascular and Interventional Radiology*, 23(3), 347–350. <https://doi.org/10.1016/j.jvir.2011.11.002>