

**Nurse Practitioner (NP) and Physician Assistant (PA) Rheumatology Curriculum Outline**

**American College of Rheumatology (ACR) and  
Association of Rheumatology Health Professionals (ARHP)**

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### American College of Rheumatology (ACR) and Association of Rheumatology Health Professionals (ARHP)

#### I. OVERVIEW

##### Quick Facts

- **Intended audiences:** NP/PA desiring to enter the specialty of rheumatology or rheumatologist interested in hiring/training a NP/PA
- **Suggested length for completion:** 12 months
- **Prerequisites:**
  - **Graduate from a program accredited by one of the following:**
    - NP: American Academy of Nurse Practitioners
    - PA: Accreditation Review Commission on Education for the Physician Assistant
  - **NP or PA with current state licensure**
  - **National board certification by one or more of the following:**
    - NP: American Nurses Credentialing Center
    - NP: American Academy of Nurse Practitioners
    - NP: Pediatric Nursing Certification Board
    - NP: National Certification Corporation
    - PA: National Commission on Certification of Physician Assistants

##### Introduction

The care of patients with rheumatic disease involves both an interprofessional and interdisciplinary team, led by a rheumatologist. The addition of NPs and PAs into rheumatology practice offers the potential for (a) improved patient outcomes and satisfaction through quality care and patient access, (b) avoidance of adverse events, and (c) improved patient education, shared decision making, and patient disease self-management (1-6). The 2015 workforce study suggests that geographic distribution of rheumatologists and patient access to rheumatologic services are important variables when considering timely and patient-centered care; NP/PAs can help to address these patient care issues (7).

The purpose of this document is to facilitate the efficient integration of NP/PAs into a rheumatology practice to support the provision of optimal rheumatologic care. This Curriculum Outline provides an opportunity for NP/PAs to work within their scope of practice at the highest degree of licensure as agreed upon by the supervising/collaborating rheumatologist and the NP/PA. **This Curriculum Outline is intended to provide the foundation only (considered as “meeting expectations”) for entry into a career in rheumatology for NP/PAs. This curriculum is not intended to be restrictive in nature and is not intended to limit the scope of licensure and practice under the laws regulating NP and PA professional practice.** Some examples of “exceeding expectations” have been included below in several competencies in *italics*. Whether these “exceeding expectations” or other duties as assigned are addressed during the training period will be at the discretion of the supervising/collaborating rheumatologist and NP/PA based on the location, setting, availability, and individual practice needs. In addition, a

list of potential learner activities as well as tools for assessment to be utilized by each practice (private or academic) as it onboards a new NP or PA into rheumatology practice are provided in Appendix A: Rheumatology Toolbox for Suggested Learning Activities and Assessments. This Toolbox reflects the scope of practice in the Curriculum Outline.

NP/PAs should be able to identify their limitations in skills, knowledge, and abilities, as well as recognize the need to seek guidance. There are several levels of supervision/collaboration that will occur within the training period. It is acknowledged that each individual NP/PA will progress through the different levels of supervision/collaboration at different rates depending upon entry skill level, comfort level of the rheumatologist, and the speed/pace at which the NP/PA grasps concepts and techniques. For these reasons, an individual NP/PA may take longer (or shorter) than the 12 month suggested time frame to achieve competency in all content components listed in the Curriculum Outline.

### **Curriculum Outline Description**

The ACR/ARHP offers this post-graduate NP/PA Rheumatology Curriculum Outline, which can be utilized in either private practice or academic settings to guide the training of the NP or PA entering adult or pediatric rheumatology specialty practice. This Curriculum Outline is based on the following six core competencies for both NP and PA training: patient care, medical knowledge, interpersonal and communication skills, professionalism, practice-based learning and improvement, and systems-based practice. These core competencies parallel the Accreditation Council for Graduate Medical Education (ACGME) Core Competencies for physicians (8); see Appendix B: Crosswalk of Nurse Practitioner Competencies and Physician Assistant Competencies.

The foundational didactic portion of this Curriculum Outline consists of online course modules, known as the [\*Advanced Rheumatology Course \(ARC\)\*](#), created by the ACR/ARHP, covering rheumatology content for NP/PAs. The 19 adult and pediatric modules of the ARC are regularly updated (at least every three years) to ensure inclusion of the latest scientific evidence and pharmacological advances.

### **Goals and Outcomes**

The goal of this Curriculum Outline is to provide a resource tool for the training of highly qualified NP/PAs to become skilled, compassionate, and knowledgeable rheumatology providers practicing under the guidance of a supervising or collaborating rheumatologist. This Curriculum Outline is designed to meet the educational training needs for both the new NP/PA graduate and experienced NP/PA transitioning into a career in rheumatology.

The expected outcomes from successful mastery of the content outlined in this ACR/ARHP-endorsed NP/PA Curriculum Outline will be a competent rheumatology NP/PA who is prepared to:

- i. Enter the rheumatology workforce as part of a rheumatology team and be excited about a career in rheumatology
- ii. Pursue continuing medical education in rheumatology and utilize ACR/ARHP educational resources to support an ongoing career in rheumatology
- iii. Recognize and utilize practice improvement and other support functions of the

ACR/ARHP

- iv. Advocate for patients and their families at the local, regional, and national levels
- v. Provide volunteer service to ACR/ARHP
- vi. Welcome opportunities to train others and encourage students and new graduates to pursue a career in rheumatology

Time is a valuable resource to both the NP/PA new to rheumatology and the rheumatology practice that is training these health professionals. Although each NP/PA enters into formal NP/PA rheumatology training with previous clinical experience, it is strongly recommended that each rheumatology practice setting allow the necessary time to perform the appropriate tasks related to patient care and ensure protected time to study rheumatology topics. The NP/PA would be expected to assume a gradually increasing caseload that would allow for the suggested year-long, in-depth learning through supervised or collaborative clinical experience/exposure and successful completion of foundational didactic educational activities to gain skills, competency, and confidence level to manage patients with rheumatic disease.

It is expected that the NP/PA will receive ongoing feedback and support from a rheumatologist who is aware of and utilizes the educational, advocacy, practice improvement, and support functions of the ACR/ARHP. The supervising/collaborating rheumatologist is expected to encourage and support the NP/PA to maintain membership in the appropriate primary professional organization and ARHP and to access resources available through the ACR/ARHP.

**Supervision/Collaboration**

Given the differences in training programs, state laws, licensure, and ability to practice independently by NPs in some states, terminology used in this curriculum has been carefully considered. The curriculum is not intended to limit the ability of NPs or PAs to practice rheumatology to the fullest extent of their state license and should not hinder NP/PAs from practicing under their applicable state laws. State laws for NPs vary regarding an NP's ability to practice independently. The scope of a PA's license universally requires supervision by a physician.

For the purposes of this NP/PA Rheumatology Curriculum Outline, the terms used to describe the supervision by or collaboration with the team's lead rheumatologist become very important given that the curriculum is intended to be applied to NPs and PAs across the country interested in specializing in rheumatology. To be inclusive and considerate of the discipline-specific terminology, both terms "supervision" and "collaboration" were included. The term "supervision" is generally preferred in the PA practice, while the term "collaboration" is generally preferred in the NP practice.

During the training period, NP/PAs, with the assistance of the rheumatologist, should begin to identify their limitations in skills, knowledge, and abilities, and recognize the need to seek guidance of the rheumatologist. NP/PAs should be open to and accepting of direction and education as provided and encouraged by the rheumatologist. NP/PAs during this training would be expected to grow professionally while progressing through several levels of supervision/collaboration. NP/PA's rheumatologist would be encouraged to recognize the additional time needed to complete new tasks specific to managing and providing care to patients

with rheumatic disease, as well as attain the necessary didactic learning to maximize the NP/PA functioning considered as meeting foundational training expectations for entry into rheumatology.

There are several levels of supervision/collaboration that will occur within the suggested 12 months of training, and individuals will proceed at different rates. All NP/PAs will begin with direct supervision (physically present with the trainee and directly reviewing the encounter/decisions) and progress to varying levels as defined by:

- i. Indirect supervision with direct supervision immediately available (supervisor physically present at the site of care and immediately available)
- ii. Indirect supervision with direct supervision available (supervisor not physically present in the building site of care, but immediately available by means of phone/electronic modality)
- iii. Oversight as specified by state law or statute (supervisor or collaborator available to provide feedback after care is delivered)

## II. RATIONALE

Rheumatic diseases are prevalent in the United States (9-11). The high prevalence of rheumatic diseases has an effect on individuals, the health care system, and society in general (12). There is a recognized and documented need to increase the number of trained rheumatology health professionals, including physicians, NPs, and PAs (13). Future rheumatology workforce shortages are anticipated due to multiple variables (7). Providing care for patients with rheumatic disease requires a breadth of knowledge in diagnosis, treatment, and monitoring to treat these conditions. Additionally, rheumatic disease management requires unique pharmacologic and non-pharmacologic treatment modalities.

The beginnings of the NP and PA professions date back over 50 years. The creation of these two professions occurred during a time of tremendous workforce needs throughout medicine. NP/PAs are recognized members of the interprofessional team to improve patient care and health care delivery. The value of NP/PAs in primary care as well as various medical specialties, including rheumatology practice, is well-recognized (14-15).

A prerequisite for application to NP/PA post-graduate training programs is significant clinical experience prior to graduation from a NP or PA degree program. Formal NP/PA post-graduate training programs build upon a NP/PA base of clinical experience to augment foundational medical knowledge, which is primary care focused. For NP/PAs, this rheumatology post-graduate training enhances and deepens knowledge and skills acquired during an NP/PA's degree program. Similar to their physician counterparts, postgraduate training is needed to assist the NP/PA in preparing to efficiently contribute to rheumatology practice and to effectively meet the needs of patients with rheumatic disease. The American College of Rheumatology, recognizing this gap in NP/PA rheumatology specific training, debuted in December 2008 the [\*Advanced Rheumatology Course\*](#) (ARC). The ARC is an online educational product that provides rheumatology learning opportunities for the NP/PA in a module-based format building upon the NP/PA's medical knowledge. ARC has been highly utilized in preparing NP/PAs to be members of the rheumatology health care team in an accelerated manner.

Even with success of *ARC*, there is a continued need to provide additional, structured rheumatology training to the NP/PA entering a rheumatology practice (16). Rheumatologists in both community-based and academic settings often seek guidance regarding onboarding NP/PAs into rheumatology practice. This Curriculum Outline provides a framework of the knowledge, skills, and attitudes to facilitate the integration of NPs and PAs into a rheumatology practice under the supervision/collaboration of a rheumatologist (17).

### III. GENERAL COMPETENCIES, GOALS, AND OBJECTIVES

The general competencies, goals, and objectives listed below are expectations that NP/PAs would reasonably be expected to achieve within the suggested training period. It is recognized that every rheumatology practice has unique needs and circumstances. To that end, under several of the Competency sections in *italics* are listed potential “exceeding foundational expectations” (not an exhaustive list) that might be obtained by NP/PAs during the suggested first year of rheumatology practice.

#### 1. PATIENT CARE

- a. **Goal:** Rheumatology NP/PAs are expected to provide patient care that is compassionate, appropriate, evidenced-based, and effective for the promotion of health, prevention of illness, and treatment of rheumatic diseases under the supervision/collaboration of a rheumatologist.
- b. **Objectives:** The NP/PA post-graduate trainee will be able to:
  - i. New Patient: Perform a comprehensive history and physical examination including a detailed musculoskeletal exam and joint assessment
  - ii. Follow-up Patient: Perform a disease-focused history and physical examination including musculoskeletal examination and joint assessment
  - iii. Formulate an appropriate differential diagnosis
  - iv. Order appropriate laboratory, radiographic examinations, and other diagnostic testing
  - v. Utilize and integrate results of laboratory, radiographic examinations, and other diagnostic testing into management plans under the supervision/collaboration of a rheumatologist
  - vi. Prescribe medications and be able to:
    1. Describe mechanism of action
    2. Utilize appropriate dosing
    3. Recognize, monitor, and manage adverse effects
    4. Order and interpret appropriate laboratory monitoring
    5. Document information needed to support medication decision making and the prior authorization process
  - vii. Perform procedures, as agreed upon by the supervising/collaborating rheumatologist and NP/PA
    1. Arthrocentesis (synovial fluid aspiration)
      - a. Indications and contraindications

- b. Large and medium joints (i.e., knee)
  - 2. Joint and soft tissue injections (adult)
    - a. Indications and contraindications
    - b. Large and medium joints (i.e., knee)
    - c. Trigger points
    - d. Greater trochanteric bursae
    - e. Subacromial space
  - 3. Joint injections (pediatric)
    - a. Large and medium joints (i.e., knee)
- viii. Provide education and counseling on disease process, preventive medicine, and proactive care, including but not limited to:
  - 1. Adult:
    - a. Lipid monitoring in patients with rheumatic disease due to the high risk of comorbid cardiovascular disease
    - b. Tobacco cessation
    - c. Weight loss counseling
    - d. Self-management
    - e. Care for pregnant patients
      - i. Pregnancy planning
      - ii. Medication management
      - iii. Special circumstances (fetal heart block, disease flares)
  - 2. Pediatric:
    - a. Impact on growth/development
    - b. Uveitis risk
    - c. School accommodations
    - d. Self-management
    - e. Transition to adult rheumatology care
  - 3. Both adult and/or pediatric:
    - a. Traditional DMARDS – Appropriate screening and management (methotrexate, leflunomide, hydroxychloroquine, sulfasalazine, azathioprine)
    - b. Biologic DMARDS and small molecules – Appropriate screening and management
    - c. Medication compliance and adherence
    - d. Contraception
    - e. Lactation
    - f. Physical activity and exercise
    - g. Occupational and educational accommodations
    - h. Preventative care
      - i. Vaccinations
      - ii. Bone health assessment
      - iii. Cardiovascular disease
      - iv. Cancer screenings
    - i. Assessment of psychosocial stressors (i.e., depression, anxiety)

- j. Weight management
- k. Nutrition counseling
- ix. Gather assessment data for prospective evaluation and treatment
  1. Joint counts
  2. Appropriate disease activity measures (18, 19)
  3. Patient-reported standardized assessments and outcomes
    - a. Pain
    - b. Function/disability
    - c. Health status
    - d. Quality of life
    - e. Depression/anxiety
- x. Recommend modalities of non-pharmacologic care with referral for:
  1. Physical therapy, occupational therapy
  2. Assistive devices, durable medical equipment (DME), and braces
  3. Self-management for chronic disease
  4. Pain management
- xi. Consult subspecialists (identify need for referrals and make appropriate referrals)
- xii. Coordinate care with the interprofessional team (including but not limited to nutrition, psychology, and social work) and integrate recommendations into management plans
- xiii. Communicate and coordinate care with primary care and other subspecialist providers
- xiv. Recognize the effect health disparities exert when providing health care to populations
- xv. Utilize best practice regarding patient privacy, including HIPAA
- xvi. Incorporate cultural sensitivity in delivering care to all patients
- xvii. Gather accurate, essential information from all sources, including: medical interviews, physical examination of the structure and function of all axial and peripheral joints, periarticular structures, peripheral nerves and muscles, medical records, and diagnostic/therapeutic procedures

***Exceeding Foundational Expectations include and are not limited to:***

- *Microscopy of synovial fluid (basic CLIA procedures, proper slide prep and storage, identification of crystals)*
- *Other joint aspirations/injections as determined by NP/PA and supervising/collaborating rheumatologist (small, medium, large joints, and other soft tissues)*
- *May participate in the care of the hospitalized patient with rheumatic disease with direct, active supervision/collaboration*
- *Pharmaceutical sponsored clinical trials, when available at a participating site*

**2. MEDICAL KNOWLEDGE**

- a. **Goal:** Rheumatology NP/PAs are expected to demonstrate knowledge of established and evolving biomedical, clinical, and psychosocial issues as they apply to the rheumatic diseases, and to apply their knowledge to patient care and the education of others.
- b. **Objectives:** The NP/PA post-graduate trainee will be able to:
  - i. Assess, critically evaluate, and apply current medical information and scientific evidence
  - ii. With appropriate supervision/collaboration, recognize and manage the following diseases if practicing in the adult setting:
    - 1. Inflammatory arthritis
      - a. Rheumatoid arthritis
      - b. Spondyloarthropathy
        - i. Psoriatic arthritis
        - ii. Ankylosing spondylitis
        - iii. Inflammatory bowel disease associated arthritis
        - iv. Reactive arthritis
    - 2. Crystalline arthritides
      - a. Gout
      - b. Calcium pyrophosphate dihydrate (CPPD)
    - 3. Connective tissue disease
      - a. Systemic lupus erythematosus
      - b. Sjogren's syndrome
      - c. Undifferentiated connective tissue disease
    - 4. Raynaud phenomenon (primary or secondary)
    - 5. Osteoarthritis
    - 6. Infectious arthritis
    - 7. Polymyalgia rheumatica
    - 8. Regional pain syndromes
      - a. Tendinopathies
      - b. Back pain
      - c. Neck pain
      - d. Bursitis
      - e. Carpal tunnel syndrome
      - f. Mechanical derangements
    - 9. Central pain syndromes
      - a. Fibromyalgia
    - 10. Benign hypermobility syndrome
    - 11. Bone disorders
      - a. Osteopenia
      - b. Osteoporosis
      - c. Vitamin D deficiency
      - d. Avascular necrosis
  - iii. With appropriate supervision/collaboration, recognize and manage the following diseases if practicing in the pediatric setting:

1. Juvenile idiopathic arthritis
  - a. Systemic onset
  - b. Oligoarticular
  - c. Polyarticular (RF positive, RF negative)
  - d. Enthesitis related/Spondyloarthropathy
  - e. Psoriatic arthritis
  - f. Undifferentiated arthritis
2. Juvenile dermatomyositis
3. Idiopathic uveitis
4. Infectious arthritis
  - a. Septic arthritis
  - b. Transient (septic) arthritis of the hip
  - c. Post infectious arthritis
5. Juvenile non-inflammatory disorders
  - a. Benign hypermobility
  - b. Regional pain syndromes
  - c. Pain amplification syndrome
  - d. Patellofemoral syndrome
  - e. Slipped capital femoral epiphysis
  - f. Legg-Calve-Perthes disease

***Exceeding Foundational Expectations:***

- *Adult:*
  - a. *Antiphospholipid syndrome*
  - b. *Systemic vasculitis*
  - c. *Systemic sclerosis*
  - d. *Myopathies/myositis*
  - e. *Mixed connective tissue disease*
  - f. *Overlap connective tissue disease*
  - g. *Paraneoplastic syndromes*
  - h. *Autoinflammatory syndromes*
  - i. *Paget's disease*
  
- *Pediatric:*
  - a. *Systemic lupus erythematosus*
  - b. *Mixed connective tissue disease*
  - c. *Overlap connective tissue disease*
  - d. *Scleroderma – localized and systemic sclerosis*
  - e. *Systemic vasculitis*
  - f. *Autoinflammatory syndromes*

**3. INTERPERSONAL AND COMMUNICATION SKILLS**

- a. **Goal:** Rheumatology NP/PAs are expected to demonstrate interpersonal and communication skills that enable them to establish and maintain professional relationships with patients, families, and other members of health care teams.

- b. **Objectives:** The NP/PA post-graduate trainee will be able to:
  - i. Use effective listening, nonverbal communication, questioning, and narrative skills to communicate with patients and their families or caregivers in order to:
    - 1. Establish a trusting relationship
    - 2. Recognize and incorporate patient and family/caregiver perspective in decision making
  - ii. Deliver concise, pertinent, and effective patient presentations including differential diagnoses to the supervising/collaborating rheumatologist
  - iii. Communicate information with patients, families, and health care team members in a form that is understandable, avoiding discipline-specific terminology when possible
  - iv. Provide effective and professional consultation to other physicians and health care professionals
  - v. Establish and maintain therapeutic and sound professional relationships with patients, families, and colleagues
  - vi. Interact with consultants in a respectful, appropriate manner
  - vii. Maintain comprehensive, timely, and legible medical records

#### 4. **PROFESSIONALISM**

- a. **Goal:** Rheumatology NP/PAs, who have already attained a substantial level of professionalism prior to obtaining licensure, are expected to further expand these principles during post-graduate training with this Curriculum Outline.
- b. **Objectives:** The NP/PA post-graduate trainee will be able to:
  - i. Demonstrate respect, compassion, empathy, integrity, and altruism in relationships with patients, families, and colleagues
  - ii. Place the interest of the patient at the center of care and before all other external interests
  - iii. Respect the dignity and privacy of patients while maintaining confidentiality in the delivery of team-based care (17)
  - iv. Develop a trusting relationship with patients, families, and other team members while encouraging patient autonomy or involvement in the determination of treatment and responding to each patient's unique characteristics and needs (17, 20)
  - v. Communicate with patients, families, communities, and professionals, based on their level of health literacy, in a responsive and responsible manner that supports a team-based care approach to the promotion and maintenance of health and the prevention and treatment of disease (17)
  - vi. Recognize disparities in health care that may impact patient care and demonstrate sensitivity and responsiveness to the gender, age, culture, religion, sexual preference, socioeconomic status, beliefs, behaviors, and disabilities of patients and professional colleagues

- vii. Respect the unique cultures, values, roles/responsibilities, and expertise of other health professionals and the impact these factors can have on health outcomes (17)
- viii. Take responsibility for situations where public health supersedes individual privacy, e.g., reportable infectious diseases
- ix. Recognize and identify deficiencies in self including personal, psychological, and physical limitations that may affect professional performance. This insight includes, but is not limited to, accepting personal errors and honestly acknowledging them, maintaining patient confidentiality, upholding ethical expectations of clinical, scholarly and research activities, as well as maintenance of credentialing requirements.
- x. Recognize, respond to, and report either the impairment in colleagues, or the provision of substandard care, via a peer review process
- xi. Demonstrate responsible use of technology and social media
- xii. Maintain competence in one's own profession appropriate to scope of practice (17)

**5. PRACTICE-BASED LEARNING AND IMPROVEMENT**

- a. **Goal:** Rheumatology NP/PAs will build upon their knowledge base and skillset with the goal of improving high quality patient care. NP/PAs are expected to use evidence-based medicine in the delivery of high quality patient care. NP/PAs will continually perform self-reflection as well as incorporate feedback provided by the supervising/collaborating rheumatologist.
- b. **Objectives:** The NP/PA post-graduate trainee will be able to:
  - i. Utilize evidence-based medicine
  - ii. Identify areas for improvement and implement strategies to enhance knowledge, skills, and attitudes in the practice of rheumatology
  - iii. Analyze and evaluate practice experiences and implement strategies to continually improve the quality of patient care
  - iv. Develop and maintain a willingness to learn from errors to improve the system(s) or processes of care
  - v. Seek and incorporate feedback from the supervising/collaborating rheumatologist
  - vi. Use information technology or other available resources to access and manage information, support patient care decisions, and enhance patient education
  - vii. Construct clinical questions and pursue answers to clinical questions with increasing independence

**6. SYSTEMS-BASED PRACTICE**

- a. **Goal:** Rheumatology NP/PAs are expected to demonstrate both an understanding of the contexts and systems in which health care is provided and the ability to apply this knowledge to improve and optimize health care.
- b. **Objectives:** The NP/PA post-graduate trainee will be able to:
  - i. Recognize, access, and utilize the resources, providers, and systems necessary to provide optimal rheumatologic care. These include, but are not limited to, consultation with other medical specialties, nursing, use of physical and occupational therapy, rehabilitation services, pharmacy, social services, administrative staff, and community groups
  - ii. Develop strategies to optimize care for the individual patient and family based on the limitations and opportunities inherent in various practice types and delivery systems
  - iii. Apply evidence-based, cost-conscious strategies for prevention, diagnosis, and management of rheumatic disease
  - iv. Recognize risks for and strategies to prevent medical errors in an effort to promote patient safety
  - v. Recognize coding and reimbursement issues specific to rheumatology
  - vi. Advocate with other members of the health care team to assist patients and families in navigating effectively within complex systems and to improve systematic processes of care
  - vii. Recognize the importance of continuous quality improvement and develop knowledge and understanding of quality improvement processes
  - viii. Recognize that there are external and other resources available for optimal rheumatologic care and develop knowledge and understanding of the utilization of these resources

**IV. EVALUATION AND FEEDBACK (see Appendix C: Competency Evaluation Tool)**

Evaluations of the NP/PA by the supervising/collaborating rheumatologist should occur during the training period. Self-evaluations of the NP/PA should also occur throughout the training period. A sample competency evaluation form has been provided. This tool can be utilized in the current form or tailored to meet local needs. For instance, the tool could be modified to include local site context and expectations and some or all skills listed as subsections under each competency. Use of the sample competency evaluation form is optional. Foundational expectations include conducting quarterly/semi-annually evaluations of the NP/PA trainee by the rheumatologist, including a final evaluation at the end of the training period.

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**APPENDIX A**

**Rheumatology Toolbox for Suggested Learning Activities and Assessments**

Below is a list of suggested activities and assessment tools that can provide a robust learning environment for the NP/PA focusing a career in rheumatology. This Toolbox is intended as a menu of choices for learning activities and assessments and the list is not intended to be exhaustive in nature. There tend to be many established learning/educational activities in academic settings and for this reason the below list of activities may seem heavily weighted to academic environments.

Many activities on this list may not be feasible to implement in private practice settings. It is understood that not all activities are available at all practice sites. Many of these Toolbox activities may be considered aspirational and “*exceeding foundational expectations.*” Engagement in any identified learning activities will be the responsibility of the supervising/collaborating rheumatologist and the NP/PA to match the learning goals, site specific needs, and availability of educational opportunities.

**Directions:** The list of activities below should serve as suggestions for achieving the learning goals of the NP/PA and the supervising/collaborating rheumatologist. The provided list of activities and assessments can be utilized and/or supplemented with other activities and assessments that may be unique to each practice site.

**Educational Activities**

<b>NP/PA TRAINEE EXPERIENCE</b>	<b>ACTIVITY</b>
Clinical experience with supervision/collaboration	General rheumatology continuity clinic Inpatient consult service Inpatient rheumatology service Electives: Physical medicine and rehabilitation Sports medicine Orthopedics Pediatric orthopedics Physical therapy Occupational therapy Podiatry Pain management
Didactic: Large group	Rheumatology grand rounds Medicine grand rounds Rheumatology core curriculum conference Evidence-based medicine conference Rheumatology journal club Rheumatology case conference Other grand rounds Summer rheumatology review

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	<p>Attendance at:</p> <ul style="list-style-type: none"> <li>Local specialty conferences</li> <li>Regional specialty conferences</li> <li>National conferences: <ul style="list-style-type: none"> <li>ACR/ARHP Annual Meeting</li> <li>ACR State of the Art</li> <li>Winter Rheumatology Symposium</li> </ul> </li> </ul>
Didactic: Small group	<ul style="list-style-type: none"> <li>Faculty facilitated discussion</li> <li>Workshop participation</li> </ul>
Self-study	<p>Independent readings:</p> <ul style="list-style-type: none"> <li>Textbook</li> <li>Journal articles</li> <li>Internet-based study: <ul style="list-style-type: none"> <li><a href="#"><i>Advanced Rheumatology Course</i></a></li> <li><i>Rheumatology eBytes</i></li> <li><a href="#"><i>Rheum2Learn</i></a> self-study module</li> </ul> </li> </ul> <p>NP/PA post-graduate trainee presentations:</p> <ul style="list-style-type: none"> <li>Rheumatology journal club</li> <li>Case conference</li> <li>Community education</li> </ul>
NP/PA trainee projects and presentations	<ul style="list-style-type: none"> <li>Quality improvement</li> <li>Patient safety</li> <li>Preparation of patient care portfolio</li> </ul>
Simulation	Simulation with standardized patients

**Assessment Tools**

<b>METHODS</b>	<b>ASSESSMENT TOOL</b>
Anatomic model	Joint simulator Cadaver lab Arthrocentesis/injections
Direct observation	Standardized patient Clinical care
Multisource assessment	Self-assessment Faculty evaluations 360 degree (administration, nursing, health professionals, technical staff) Peer Patient evaluations
Objective structured clinical exam (OSCE)	
Medical documentation review	Practice/billing audit
Presentation skills	
NP/PA trainee experience narrative	Reflection
Review case/procedure log	
Review of patient outcomes	Quality improvement
Role play or simulations	
Structured case discussions	

**APPENDIX B**

**Crosswalk of Nurse Practitioner Competencies and Physician Assistant Competencies**

		NCCPA, ARC-PA, PAEA, and AAPA Core Competencies					
		Patient Care	Medical Knowledge	Systems-Based Practice	Practice-Based Learning & Improvement	Professionalism	Interpersonal & Communication Skills
National Organization of Nurse Practitioner Faculties (NONPF) Core Competencies	Scientific Foundation		X				
	Leadership			X			X
	Quality			X	X		
	Practice Inquiry	X					
	Technology & Information Literacy	X			X		X
	Policy			X		X	
	Health Delivery Systems	X		X			
	Ethics					X	
	Independent Practice	X	X	X		X	X

NCCPA= National Commission on Certification of Physician Assistants  
 ARC-PA=Accreditation Review Commission on Education for the Physician Assistant  
 PAEA=Physician Assistant Education Association  
 AAPA=American Academy of Physician Assistants

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## APPENDIX C

### **Nurse Practitioner and Physician Assistant Rheumatology Curriculum Outline Competency Evaluation Tool**

This sample competency evaluation tool was developed to aid rheumatologists, nurse practitioners (NPs), and physician assistants (PAs) utilizing the NP/PA Rheumatology Curriculum Outline to assess the progress of NPs and PAs in obtaining competency in caring for persons with rheumatic disease. Rheumatologists may use this competency tool (or choose to expand the tool to include some or all subsections under each competency and/or local context and expectations) to evaluate NP/PAs whom they mentor. NP/PAs may also use this evaluation tool as a self-assessment of their progress. Utilizing this evaluation tool at various intervals throughout the course of the curriculum (quarterly or semiannually) is optimal to measure progress and identify the individual needs of the NP/PA in the rheumatology practice setting in which the curriculum is used.

#### Scoring rubric

- 1-NP/PA cannot perform this competency or skill, even with assistance
- 2-NP/PA can perform this competency or skill, but only under direct (physically present) supervision
- 3-NP/PA consistently performs this competency or skill under indirect (not physically present but immediately available) supervision
- 4-NP/PA performs this competency or skill independently

\_\_\_\_\_ 1. PATIENT CARE: Rheumatology NP/PAs are expected to provide patient care that is compassionate, appropriate, evidenced-based, and effective for the promotion of health, prevention of illness, and treatment of rheumatic diseases under the supervision/collaboration of a rheumatologist.

Comments:

\_\_\_\_\_ 2. MEDICAL KNOWLEDGE: Rheumatology NP/PAs are expected to demonstrate knowledge of established and evolving biomedical, clinical, and psychosocial issues as they apply to the rheumatic diseases, and to apply their knowledge to patient care and the education of others.

Comments:

\_\_\_\_\_ 3. INTERPERSONAL AND COMMUNICATION SKILLS: Rheumatology NP/PAs are expected to demonstrate interpersonal and communication skills that enable them to establish and maintain professional relationships with patients, families, and other members of health care teams.

Comments:

\_\_\_\_4. PROFESSIONALISM: Rheumatology NP/PAs, who have already attained a substantial level of professionalism prior to obtaining licensure, are expected to further expand these principles during post-graduate training with this Curriculum Outline.

Comments:

\_\_\_\_5. PRACTICE BASED LEARNING AND IMPROVEMENT: Rheumatology NP/PAs will build upon their knowledge base and skillset with the goal of improving high quality patient care. NP/PAs are expected to use evidence-based medicine in the delivery of high quality patient care. NP/PAs will continually perform self-reflection as well as incorporate feedback provided by the supervising/collaborating rheumatologist.

Comments:

\_\_\_\_6. SYSTEMS BASED PRACTICE: Rheumatology NP/PAs are expected to demonstrate both an understanding of the contexts and systems in which health care is provided and the ability to apply this knowledge to improve and optimize health care.

Comments:

Additional Suggestions:

\_\_\_\_\_  
NP/PA signature

\_\_\_\_\_  
Rheumatologist signature

\_\_\_\_\_  
Date

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