

Utilizing Advanced Practice Registered Nurses and Physician Assistants in an Allergy Practice

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Disclosures

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- Clinical research: AstraZeneca, GSK, Novartis, Sanofi Genzyme
- Speaker's bureau: AstraZeneca, Boehringer Ingelheim, Circassia, Pharming Group, Regeneron, Sanofi Genzyme, Sunovion

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Learning objectives

1. Recognize the unique aspects of care provided by nurse practitioners and physician assistants that can benefit an allergy practice.
2. Describe best practice models to help nurse practitioners, physician assistants and physicians work together as a team.
3. Identify advantages and barriers to a collaborative care model in an allergy practice.

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Scope of the problem

SUPPLY AND DEMAND FORECAST FOR ALLERGY/IMMUNOLOGY PHYSICIANS			
Year	A/I Physician Demand	A/I Physician Supply	A/I Shortage
2009	3,962	3,962	0
2014	4,383	4,034	349
2016	4,615	4,067	548
2019	4,847	3,968	879
2024	5,354	3,877	1,477
2029	5,901	3,794	2,107

Source: Center for Health Workforce Studies; School of Public Health, University at Albany, State University of New York

- There is a growing shortage of allergists in the United States
- Demand for allergy services is projected to increase substantially over the next decade

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Scope of the problem



- 86 A/I fellowship training programs in 1990s vs. 79 in 2018
- To keep up with the demand, many practices are turning to Advanced Practice Providers (APPs)

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Who is an APP?

- A clinical provider who is not a physician but who has undergone specialized education, training, certification and licensure
- The Advance Practice Provider's scope of practice, level of independence and authority varies by the type of APP and by state regulations

Advanced Practice Provider Center, 2018. <https://www.med.unc.edu>

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Who is an APP?

- As paradigms of health care delivery evolve, APPs have become an important consideration in patient care
- Acceptance of APPs has become the focus in many areas of medicine
- State governments are making concerted efforts to increase utilization of APPs¹
- The National Governors Association encourages state legislators to make any and all necessary changes to remove barriers that restrict the scope of practice of APPs¹

¹Barnes H, Maier CB, Sarik DA. Effects of regulation and payment policies on nurse practitioners' clinical practices. Medical Care Research and Review; 2017: 7(4):431–451

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Advantages of APPs

- Improve patient access for new and existing patients
- Improve quality and patient satisfaction
- Help manage at-risk populations
- Increase referrals from primary care, ENT and dermatology offices who employ APPs
- Reduce cost of delivering patient care
- Allows the practice to operate during extended hours and weekends
- Allows the practice to operate more satellite clinics
- Help with clinical research

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Advantages of APPs

- Help with call duties
- Most APPs generate additional revenue for the practice and contribute to increased productivity and satisfaction of providers
- Annual compensation (2017)
 - Allergist: \$257,000¹ (average) \$242,142² (median)
 - APRN: \$107,480³ (average) \$103,880³ (median)
 - PA: \$104,760³ (average) \$104,860³ (median)

¹Medscape Allergist Compensation Report 2017

²Salary.com

³Bureau of Labor Statistics

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APP: Advanced Practice Registered Nurse

- Autonomously and in collaboration with health care professionals, advanced practice registered nurses (APRNs) provide a full range of primary, acute and specialty health care services
- Patients attended more than 1.02 billion clinical visits with APRNs in 2016 in the United States

Buchholz SW, Klein T, Cooke C, et al. Introduction to four reviews addressing critical topics identified by the 2015 Nurse Practitioner Research Agenda Roundtable: Priorities for policy, workforce, education, and practice. Journal of the American Association of Nurse Practitioners (2018) 1–6.

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APP: Advanced Practice Registered Nurse

- **Education**

Bachelors of Nursing Science	4-year degree
Masters of Nursing Science	2 to 3-year degree
Doctoral	2 to 5-year degree
PhD	
DNP	
- Advanced clinical training beyond their initial professional registered nurse preparation
- Didactic and clinical courses prepare nurses with specialized knowledge and clinical competency to practice in primary care, acute care and long-term health care settings

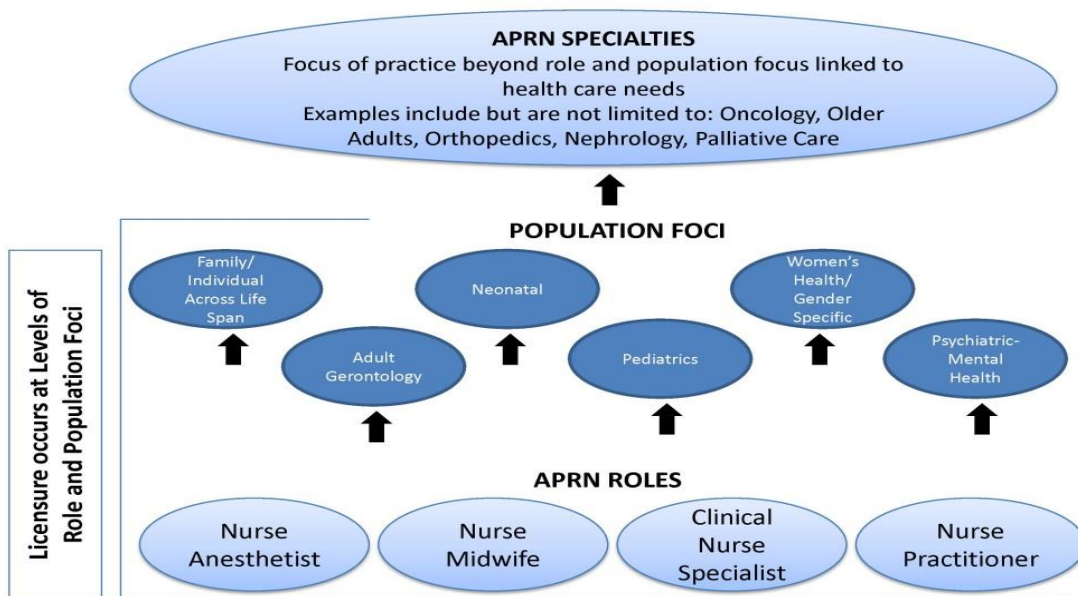
American Academy of Nurse Practitioners, 2018. <http://aanp.org>
 American Nursing Credentialing Center, 2018. <http://nursingworld.org>

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APRN Regulatory Model



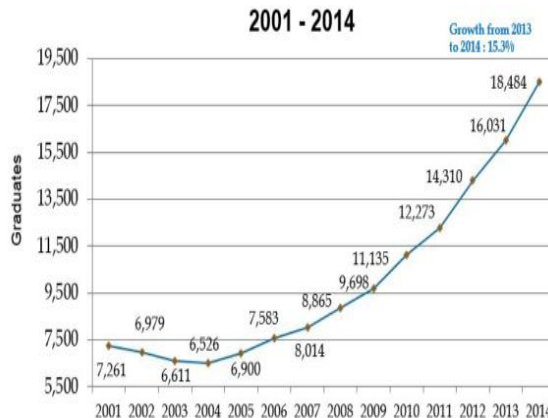
Consensus Model. American Nurses Credentialing Center 2017 <https://www.nursingworld.org>

APP: Advanced Practice Registered Nurse

- Employment of APRNs is projected to grow 31 percent from 2016 to 2026 -- much faster than the average for all occupations
- Growth will occur primarily because of an increased emphasis on preventive care and demand for healthcare services from an aging population

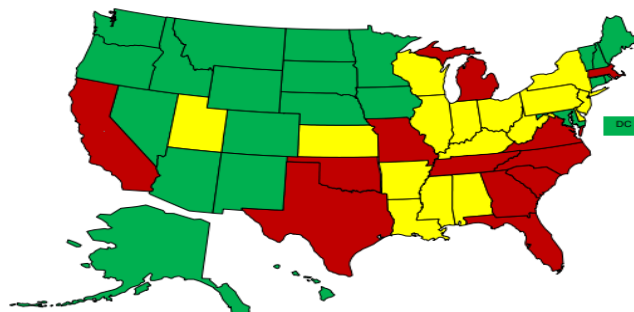
Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Nurse Anesthetists, Nurse Midwives, and Nurse Practitioners; April, 2018. <https://www.bls.gov/ooh/healthcare/nurse-anesthetists-nurse-midwives-and-nurse-practitioners.htm> Retrieved May 20, 2018

Growth in Nurse Practitioner Graduates*



American Association of Colleges of Nursing (AACN) and National Organization of Nurse Practitioner Faculties (NONPF) Annual Surveys

APP: Advanced Practice Registered Nurse



Full Practice

State practice and licensure laws provide for nurse practitioners to evaluate patients, diagnose, order and interpret diagnostic tests, initiate and manage treatments—including prescribe medications and controlled substances—under the exclusive licensure authority of the state board of nursing. This is the model recommended by the National Academy of Medicine, formerly called the Institute of Medicine and National Council of State Boards of Nursing.

Reduced Practice

State practice and licensure law reduces the ability of nurse practitioners to engage in at least one element of NP practice. State requires a career-long regulated collaborative agreement with another health provider in order for the NP to provide patient care or limits the setting of one or more elements of NP practice.

Restricted Practice

State practice and licensure law restricts the ability of a nurse practitioner to engage in at least one element of NP practice. State law requires career-long supervision, delegation or team-management by another health provider in order for the NP to provide patient care.

APP: Advanced Practice Registered Nurse

- Patient-centered model¹
- Deliver high-quality, cost-effective care while improving healthcare access¹
- The advent of specialty-focused NPs has resulted in the development of formal fellowship programs aimed at bridging the gap between graduate education and specialized practice ²
- The Institute of Medicine (2010) reported that the development of formal orientation or residency programs offers NPs the opportunity to transition successfully into new care settings³

1. American Academy Nurse Practitioner. 2018. <http://aanp.org>.

2. Elliot EC, Walden M. Development of the transformation advanced professional practice model. J Am Assoc Nurse Practice 2015 Sep;27(9):479-87.

3. Flinter M, Hart AM. Thematic elements of the postgraduate NP residency year and transition to the primary care provider role in a Federally Qualified Health Center. J Nurs Ed Prac 2017; 7(1):96-106.

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APP: Role of Advanced Practice Registered Nurse

- Perform comprehensive physical exams and obtain health histories
- Provide patient and family counseling, education, and health promotion
- Administer wound care, medications, and other personalized interventions
- Interpret patient data, maintain patient records and make important decisions
- Coordinate care, develop differential diagnoses and arrange patient referrals
- Supervise and direct care offered by other healthcare providers
- Conduct and take part in research studies in support of improved care, practice and patient outcome

American Academy Nurse Practitioners, 2018. <http://aanp.org>

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APP: Advanced Practice Registered Nurse

Specialty areas

Acute Care
Adult Health
Family Health
Gerontology Health
Neonatal Health
Oncology
Pediatric/Child Health
Psychiatric/Mental Health
Women's Health

Subspecialty areas

Allergy & Immunology
Cardiovascular
Dermatology
Emergency
Endocrinology
Gastroenterology
Hematology & Oncology
Neurology
Occupational Health
Orthopedics
Pulmonology & Respiratory
Sports Medicine
Urology

American Academy Nurse Practitioners, 2018. <http://aanp.org>

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APP: Physician Assistant

- PA profession began over 50 yrs ago in 1967—three former Navy corpsmen—graduated from Duke University PA program
- Now there are more than 123,000 PAs in the U.S. (NCCPA 2017)
- The U.S. Bureau of Labor Statistics projects that the profession will increase 37 percent from 2016 to 2026
- PAs practice in all medical and surgical settings and specialties and may transition through several specialties throughout the course of their career

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APP: Physician Assistant

- Entrance to a PA program requires a bachelor's degree and prerequisites in basic and behavioral sciences analogous to premedical studies for medical students
- Applicants have varied educational and work backgrounds and average more than 3,000 hours of direct patient contact experience
- Medical model of education with a focus on team-based care
- "Generalist" – broad education across all areas of medicine; no specialty or population focus in training

Physician Assistant Education Association. *By the Numbers: 30th Report on Physician Assistant Educational Programs in the United States, 2015*. Alexandria, VA: PAEA; 2015.

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APP: Physician Assistant

- The typical PA program extends over an average of 27 continuous months and consists of two phases:
 - Didactic (classroom) phase: coursework in anatomy, physiology, pharmacology, physical diagnosis, behavioral sciences and medical ethics
 - Clinical phase: rotations in medical and surgical disciplines including family medicine, internal medicine, general surgery, pediatrics, obstetrics and gynecology, emergency medicine and psychiatry, for a total of 2,000+ hours of supervised clinical practice.

PA Education—Preparation for Excellence. https://www.aapa.org/wp-content/uploads/2016/12/Issue_Brief_PA_Education.pdf December 2016

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APP: Physician Assistant

What constitutes “supervision” of a PA?

- Currently, most state laws require PAs to have an agreement with a specific physician in order to practice
- Supervision does not require direct physical oversight
- State laws vary and define the degree of PA-physician collaboration; may differ based on experience level
- National trend is for state laws to become less restrictive with flexibility to make collaborative decisions at an individual practice level
- Important that both PA and practice are knowledgeable of state requirements

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Role of an APP in an Allergy Practice

- Obtain medical history and perform physical exam
- Diagnose and treat acute and chronic allergic/immunologic disorders
- Order and interpret diagnostic tests: skin testing, patch testing, pulmonary function testing, exhaled nitric oxide measurement, labs, radiology, etc.
- Prescribe medications and other treatments (i.e. immunotherapy, IVIG, SCIG, biologics, etc.)
- Patient education
- Coordinate care with other providers
- Refer to other providers when appropriate

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Third Party Reimbursement

- Medicare reimburses 85% of the physician fee
- Medicare reimburses 100% of physician fee if billed under “incident to” provision using a collaborating physician name and NPI number
- Medicaid reimbursement is either the same as or slightly lower than the physician fee (varies from state to state)
- Tricare reimburses 85% of the physician fee
- Commercial insurance reimbursement policies vary from carrier to carrier

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“Incident to” Billing Criteria

1. The physician personally treats, establishes the diagnosis, and develops the plan of care for a Medicare patient on the first visit for a particular medical problem
2. A physician in the group is physically on site when the APP provides follow-up care at a future visit
3. The physician personally treats and diagnoses established Medicare patients who present with new medical problems
4. The physician has an active part in the ongoing care of the patient

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Patient Outcomes

- Research shows that APPs in primary care and across specialties provide comparable care to physicians with respect to diagnostic accuracy, treatment and patient outcomes
- Patients are typically quite satisfied with the care they receive from APPs
- In some cases, APPs actually outscore physicians (they spend considerable more time with patients)
- Over a 17-year period, APPs were 12 times less likely to be sued compared to physicians^{1,2}

¹National Practitioner Data Bank

²Nicholson J. "Malpractice Avoidance and Malpractice Insurance: Keeping Both my Patients and my License Safe." Presented at: AAPA 2014. Boston; May 23-28, 2014.

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Practice Models

Team-based care model

- APP work together as a team with the physicians to co-manage their patients

Individual practice model

- APP manage and treat his/her own patients

Niche-based practice model

- Limited scope of practice (clinical trials, food/drug challenges, OIT, asthma education, etc.)

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Practice Models

Team-based care model ➡ BEST APPROACH

- APP work together as a team with the physicians to co-manage their patients

Individual practice model

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Working as a Team

Basic team dynamics include:

- Open communication to avoid conflicts
- Effective coordination to avoid overstepping of boundaries
- Efficient cooperation to perform the tasks in a timely manner
- High level of interdependence
- Shared goals and vision

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Advantages to the Team-Care Model

- Allows both APPs & physicians to utilize skill sets unique to their training
- Research demonstrates that patients often benefit from the skills and experience of more than one provider
- Allows patients to feel that they have a “deep bench” taking care of them
- The team care model is associated with increased work productivity and job satisfaction for both physicians and APPs

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Helping Your APP Succeed

- Structured orientation program
- Didactic support to fill learning gaps
- Hands-on learning
- Professional growth opportunities
- Individual mentorship



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Barriers to the Team-Care Model

- Lack of trust and appreciation of APPs' medical knowledge and scope of practice
 - ☞ studies demonstrate that APPs can manage 80% of the care provided by MDs
- Inadequate onboarding of APPs
 - Average start-up cost to train, credential, market and onboard a new physician is \$211,063¹
 - The average new physician takes three years to build up a patient panel and reach the point where he/she is effective and efficient
 - APPs are generally afforded a fraction of this time & investment

G. J. Stovall and L. Shutte, "Investing in Retention Pays Dividends," Group Practice Journal, September 2011.

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Barriers to the Team-Care Model

- Knowledge gaps may be perceived as incompetence rather than a lack of experience
- Physician not wanting to "give up" revenue
 - ☞ Practices with APPs typically generate more profit than those without
- Poor, fragmented strategies to incorporate APPs into the practice
- Underutilizing APPs or assigning them tasks not commensurate to their level of training
- Previous bad experience with an APP
- Unfamiliarity or resistance of staff or patients towards a new APP

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Training a New APP

- A new APP will need additional education in specialty topics
- May take 6-12 months to become comfortable
- Autonomy will grow with experience
- Approach as you would training a resident/allergy fellow
- Allow hands-on educational opportunities
 - Example: anaphylaxis “drills”
- Training and education is an investment in your practice

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Training a New APP

- APPs should be familiar with ALL areas of the practice before seeing patients (clinical and administrative)
- Maintain an “open door policy” and welcome questions
- Give regular constructive feedback
- Review difficult cases together
- Set clear guidelines for when physician consultation should be utilized

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Training a New APP

Example:

- Since 2006, the Division of Inpatient Medicine at Mayo Clinic has utilized a structured orientation and training program for new APPs.
 - 6-12 week orientation period
 - Stepwise approach focusing on systems-based learning and clinical skills/knowledge needed to function in hospital medicine
 - Tailored to each individual's background abilities and knowledge with checklist based on core competencies
 - Regular feedback and evaluation
 - Supplemented by formal CME courses, simulation based "boot camp," and APP Grand Rounds

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Table 3. Clinical Conditions and Procedures

Weeks	Focus	Expectations
1 and 2	Learn the electronic environment. Complete institution and division mandatory training. Become familiar with select division and institutional meetings. Meet peers, team members, and division leaders.	Manage limited clinical responsibilities (ie, direct patient care). Attend meetings as appropriate. Become familiar with division members. Complete all mandatory training modules.
3 and 4	Initiate direct patient care to allow for a slower-paced learning environment and opportunity for active, independent learning to help broaden hospital-based medicine knowledge.	Incorporate into practice the knowledge and abilities acquired in previous weeks. Manage 2 patients daily. Complete a full patient admission every other day.
5-8	Pass the reins from the trainer to the trainee. Gain experience and exposure to a variety of patients. Triage service calls and prioritize demands of service. Incorporate the ongoing communication required for patient care coordination.	Manage 2-3 patients daily. Complete 1-2 admissions daily. Transition to the daily task of carrying the service pager. Communicate successfully and collaborate with multidisciplinary teams (ie, nurses, physical and occupational therapy, dietitian, social services, and consulting subspecialty teams).
9-12	Manage full patient load. Move into a more independent role. Advance clinical skills and scope of practice.	Manage 5-6 patients daily. Complete 2-3 admissions daily.

Spychalla, M.T. PA-C, Heatherman, J.H. CNP, Pearson, K.A. PA-C, Herber, A.J. PA-C, & Newman, J.S. MD. (2014). Nurse Practitioners and Physician Assistants: Preparing New Providers for Hospital Medicine at the Mayo Clinic. *The Ochsner Journal*, 14(4), 545-550.

Training a New APP

- Allow and encourage the APP to assume new responsibilities and “grow” in the practice
 - Additional procedures
 - Research
 - Teaching
 - Management
- Encourage specialty organization participation and CME opportunities
- Recognize that an experienced APP may bring additional background knowledge in other areas (family medicine, dermatology, pulmonology, etc.)

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Tips for Incorporating a New APP

- Advertise and promote new providers: newsletters, newspapers, website, etc.
- Educate all office staff on the APP’s role and scope of practice
 - Front desk can give patients options when scheduling and “talk-up” the APP
 - Educate nursing staff on division of labor between MD and APP – phone calls, medication refills, appeals, etc.
- Introduce APP to patients and emphasize the team approach

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Our Experience at AAIA

- 4 allergists, 2.5 physician assistants
- New patients are seen by the physician but follow-up appointments are shared between the physicians and physician assistants
- PAs are permitted to perform all procedures
- With the exception of immunotherapy, PAs are permitted to initiate all prescriptions, including biologics and IVIG/SCIG
- PAs travel to out-of-town satellite clinics
- PAs provide extended-hour and Saturday coverage for patient visits and immunotherapy

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Our Experience at AAIA

- On subsequent visits, patients are given the choice to either follow-up with the PA or the physician
- PAs are encouraged to discuss difficult or complex cases with the physician
- PAs are involved in research, and are sub-investigators on several clinical trials
- PAs are encouraged to teach students and give lectures at Union College (physician assistant program)
- PAs are encouraged to participate in community outreach projects and media events (Mom's Everyday)

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Our Experience at OAAC

- 7 allergists, 3 advanced practice providers (2 nurse practitioners 1 DNP/APRN CNS)
- New non-complex patients are seen by advance practice providers
- APPs are permitted to perform all procedures
- APPs are permitted to initiate all prescriptions, including biologics
- APPs travel to satellite clinics
- All providers take clinic call



Knowledge is Power

- Terminology of APP may require explanation
 - General public may not understand the concept and role of the APP
 - Avoid the terms “mid-level provider” or “physician extender”
- Identify patients perceptions of the Advanced Practice Provider
 - Assure patients knowledge and acceptance seeing the Advanced Practice Provider
- Promote a team approach

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Resources

- National Council of State Boards of Nursing <https://www.ncsbn.org/index.htm>
- American Association of Nurse Practitioners <https://www.aanp.org/index.php>
- American Academy of PAs (AAPA) <https://www.aapa.org>
- Association of PAs in Allergy, Asthma & Immunology
<https://aapaaai.mypanetwork.com/>

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