Advanced Practice Providers in Dialysis: Successfully Incorporating the Role

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Disclosures

• I have no disclosures
Before we get started

Choose the answer that best describes your experience with Advanced Practice Providers (APPs)

• I am an APP
• I am a physician who collaborates with an APP
• The term sounds familiar, although I’m not exactly sure what they do or who they are
• Isn’t that a 24 hour blood pressure study?
Objectives

• Define and identify the types of APPs that are suitable for nephrology and ESKD programs
• Provide a brief history of the APP roles
• Outline basic education and regulatory requirements
• Illustrate the need for and change in healthcare delivery models and why the APP is a key player
• Review orientation strategies and competency development
The Advanced Practice Provider (APP)

- A healthcare provider with *specialized education* and additional training who obtains *certification* and *licensure* allowing them to provide healthcare services similar to a physician

- Two types:
  - Advanced Practice Registered Nurse (APRN)
  - Physician Assistant (PA)
Background

• Medicare and Medicaid expanded healthcare coverage in the 1960’s to include:
  • Low-income women
  • Children
  • Elderly
  • People with disabilities

• Increased population needing access to healthcare generated a primary care provider shortage, particularly in rural areas
A New Role

• Both career paths were initiated in mid-1960’s to address this shortage
  • APRN: University of Colorado offered continued education to practicing RNs
  • PA: Duke University offered a fast track for medical training to returning Army Corpsmen

• APPs could now diagnose, order and interpret diagnostic and laboratory tests, prescribe treatments and perform some outpatient procedures
Education: APRN

- Bachelor’s of Science in Nursing degree (BSN) Registered Nurse
- Masters of Science in Nursing (MSN): 500+ direct patient care clinical hours
- Doctor of Nursing Practice (DNP): 1,000+ direct patient care clinical hours
  - CNN-NP

- APRN:
  - Clinical Nurse Specialist
  - Nurse Practitioner
- Acuity Setting:
  - Primary
  - Acute
  - Both
- Population:
  - Family Nurse Practitioner (FNP)
  - Pediatric Nurse Practitioner (PNP)

Optional but encouraged

6-8 years
Regulations: APRN

• Each state’s Board of Nursing determines the APRN’s licensure requirements and scope of practice
• Most states require a license to practice, others have a “Document of Recognition”
• A few states have passed legislation for independent practice, several still require collaborative practice agreements with a physician
• National Council of State Boards of Nursing (NCSBN) has been working to get all states on the same page
Education: PA

3 academic years

Optional but encouraged

CAQ

- Masters of Health Science (MHS)
- 2000+ hours of clinical hours with classroom instruction
- Average 3,000 hours of prior healthcare experience (ie EMT, paramedic, athletic trainer, lab technician, pharmacy technician, CNA, others)
- May have a non-healthcare Bachelor’s degree
- All programs require pre-requisites of college level chemistry, anatomy/physiology, biology and microbiology

- Primary Care
- Emergency Medicine
- Surgical Specialties
- Pediatric Subspecialties
- Internal Medicine
Regulation: PA

- State medical boards oversee PA licensure and scope of practice
- License is required in all 50 states
- Supervising or collaborating physician is required for all PAs
- Optimal Team Practice is a movement within the American Association of Physician Assistants (AAPA) to remove barriers for PAs that limit collaboration to just one physician, encouraging more collaboration and less administrative red tape
Nephrology Workforce Shortage

- Escalation in number of patients with CKD progressing to ESKD
- Number of nephrologists has declined but stabilized (Sharif, et al. 2016)

Fig. 3. Period trends in the prevalence of ESKD in the USA and the numbers of nephrologists per 1000 ESKD patients [42–49].
Incoming Workforce

- Preliminary data from ASN Appointment Year (AY) 2020
- Over 400 fellowship positions are available
- Approximately 62% are filled
- Essentially unchanged over past 4 years
- Variables include perceived lack of desired job opportunities

Hard Reality

- Pediatric nephrologists are in short supply
- In the US, there are approximately 0.5 pediatric nephrologists per 100,000 children (Ku et. al, 2015)
- Rural areas suffer most (American Board of Pediatrics, 2019)

American Board of Pediatrics, 2019.
Pediatric Workforce

• Many “hats” and responsibilities
• Half of division directors believe they have inadequate physician staffing

<table>
<thead>
<tr>
<th>Activity</th>
<th>No. Engaging in Activity</th>
<th>Proportion of Work Hours Taken by Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
</tr>
<tr>
<td>Patient care</td>
<td>377</td>
<td>58.3%</td>
</tr>
<tr>
<td>Teaching</td>
<td>337</td>
<td>11.1%</td>
</tr>
<tr>
<td>Administration(^a)</td>
<td>309</td>
<td>15.1%</td>
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<tr>
<td>Clinical research</td>
<td>241</td>
<td>14.4%</td>
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<tr>
<td>Basic research</td>
<td>53</td>
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<tr>
<td>Health services research</td>
<td>13</td>
<td>7.0%</td>
</tr>
<tr>
<td>Other medical activities(^b)</td>
<td>182</td>
<td>6.3%</td>
</tr>
</tbody>
</table>

*Note: Based on 384 pediatric nephrologists who were practicing at least part-time pediatric nephrology (≥25% of the time) in the United States. The percentages refer only to the pediatric nephrologists who report engaging in that activity.

\(^a\) Administration includes activities related to planning or managing services in hospitals or other health facilities.

\(^b\) Other medical activities not including direct patient care, such as committees or consulting.
What Can Be Done?

- Increase the number of incoming nephrologists (adult and pediatric)
- Re-evaluate current health care delivery approach
- Include APPs in the multidisciplinary team structure
Comprehensive ESKD Care (CEC) model

- Centers for Medicare & Medicaid Services (CMS) is currently piloting the use of ESCOs (ESKD Seamless Care Organizations) to identify, test and improve care for Medicare beneficiaries with ESKD
  - 33 participating centers
  - September 1, 2015 through December 31, 2020
- Enhance care coordination
- Person-centered
- Improve long-term outcomes
- Reduce Medicare expenditures
- Endorsed by the American Nephrology Nurse’s Association (ANNA)

We’re all on the same team!

- ESCOs are utilizing a comprehensive team approach to provide optimal care
- Nephrologist, APP, dialysis RN, dietitian, social work, etc

Centers for Medicare and Medicaid Services, 2019
Benefits of ESCOs

• Illustrates the increasing trend of team-based care
• CEC Model can decrease spending for Medicare beneficiaries with ESKD and improve quality outcomes
• First 2 years demonstrated:
  • Decreased Medicare cost per beneficiary
  • 4% decrease in hospitalizations
  • 6% reduction due to ESKD complications

Centers for Medicare and Medicaid Services, 2019
Nephrology “Needs Analysis”

• Inpatient, outpatient, both
• Dialysis, transplant, nephrology clinic
• Satellite locations and telemedicine
• Level of autonomy
• On-call responsibilities
• Institutional culture and acceptance
• Revenue generation
• Education of patients and staff
• Research and Quality Improvement (QI)
Bridging the Gaps

- First line provider for patients and staff, liaison to nephrologist
- Round in dialysis unit
- Round on inpatients admitted to nephrology service
- Attend monthly multi-disciplinary meetings and clinics
- Assist with transition from CKD-ESKD and ESKD-transplant
- Serve as peritoneal dialysis (PD) expert
Role of the APP

- Identify, manage and coordinate interventions for common dialysis issues
- Write and review dialysis policies
- Build order sets for electronic health record (EHR)
- Order and review monthly labs, adjusting hemodialysis (HD) and peritoneal dialysis (PD) prescriptions and other medications based on results
- Write monthly notes for ESKD patients
2018 National Kidney Foundation Council of Advanced Practice (NKF/CAP) Annual Salary and Benefits Survey

- Sent out every 2 years
- PAs, APRNs, CNSs
- NKF and non-NKF members
- 446 surveys sent out with 64% response rate
- First year to include pediatric setting
Fast Facts

• APPs work in many areas of nephrology
• Transplant duties doubled from 17% in 2014 to 34% in 2018
• Only 2% of APPs report working in pediatrics

Figure 2. Nephrology APs work in multiple positions, including hemodialysis units, clinic/office, hospital, educational sites and research.
Experience Drives Orientation

- 50% of respondents are >40 years
- Common for APP to be new to nephrology or ESKD despite prior years of experience in other areas
- Standardized orientation programs are uncommon in pediatric ESKD settings
- Program specific needs will influence orientation
- Orientation may take 1-2 years depending on prior experience

Figure 1. The years of AP experience is shown, with fewer than 5 years trending highest in 2018.
Mentoring and Networking

• >50% of reporting nephrology APPs educate in some way
• APP mentors are in short supply in pediatrics
• Time spent with adult nephrology APPs could prove beneficial for basic concepts
• Membership and networking is crucial (ie ADC, SCOPE, NKF, local ANNA chapter)
Overwhelmed?!?

- Patient-related tasks should be shared among other ESKD providers
- One on one time with the collaborating physician as well as other MDT members should be prioritized
- Educational time must be supported and protected by division leadership
Pediatric Dialysis APP Orientation: Initial Topics and Resources

- NKF Professional Education Resource Center (PERC)
- ANNA Position Statement: Advance Practice in Nephrology Nursing
- Pediatric Dialysis (and supplementary Case Studies)
Pediatric Dialysis APP Orientation: Initial Topics and Resources

- International Society for Peritoneal Dialysis (ISPD)
- Kidney Disease Improving Global Outcomes (KDIGO)
Bottom line?

- The culture and healthcare model is trending toward a more team-based approach.

- Both APRNs and PAs are trusted, highly skilled and valuable members of a multi-disciplinary ESKD team.

- As first line providers, APPs successfully manage common acute and chronic dialysis issues (and nephrology depending on program).

- APPs are versatile and can bridge many gaps in the team structure.

- Pediatric nephrology orientation programs are not standardized: APPs must be motivated learners with support from division leadership.
References

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Questions?

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