Advanced Mid-Level Providers in Transplant Medicine

Ann Petersen, CNP, NP, RN
Transplant Center, Mayo Clinic Arizona

Disclosure Information

• No Disclosure Information.
• No off-label Discussions.

Objectives

• Define Advanced Mid-Level Providers (AMLP).
• Provide the background of Advanced Mid-Level Providers.
• Discuss Utilization of Advanced Mid-Level Providers in Mayo Arizona’s Transplant Program.
Definition of Advanced Mid-Level Providers

• “A Medical Provider who is not a Physician, but is Licensed to Diagnose and Treat Patients under the Supervision of a Physician”

Who are Advanced Midlevel Providers?

• Nurse Practitioners (NP).

• Physician Assistants (PA).

Why Did Advanced Mid-level Programs begin?

• Physician Shortage was noted in the mid 1960s.

• Two Different Programs began to Help with the Physician Shortage:
  • Nurse Practitioner.
  • Physician Assistant.

www.aanp.org2 and www.uaapa.org3
Nurse Practitioner Program

- Started by Loretta Ford, Nurse Educator and Dr. Henry Silver a Pediatrician at the University of Colorado in 1965.
- Began due to the Regional Shortage of Family Care and Pediatric Physicians.

Loretta Ford and Dr. Henry Silver

(1920- ) (1918-1991)

Nurse Practitioner Education

- University of Colorado started the First Certificate Program for Baccalaureate Trained Nurses.
  - Bachelors of Science in Nursing (BSN) was required to become a Nurse Practitioner.
  - BSN Requirement Continues to this Day.
BSN, ADN, and Diploma Nursing Degrees

- Bachelors of Science in Nursing (BSN).
  - Four Year Program.
  - Focus on Nursing Leadership.
  - Over 573 College and Universities offer BSN Programs as of 2005.

Associate Degree in Nursing (ADN).

- Associate Degree in Nursing (ADN).
  - Two –Three Year to Complete.
  - Prepares Individuals for the Technical Scope of Practice.
  - For a ADN to be Eligible for NP School They will need to be a BSN.
  - 58% Nursing Programs were Associates Degree programs as of 2005

Diploma Nursing Programs

- Diploma Nursing Program.
  - Usually Associated with a Hospital
  - Combines Classroom and Clinical Instruction
  - Usually 3 years to Finish.
  - Only 4% of Nursing Programs are Diploma as of 2006.
In the 1980s Nurse Practitioner Programs moved from Certificate to Master’s Degrees.
• By 2015 all Programs will be Doctorate Degrees.
  • Degrees obtained before 2015 will be Grandfathered.
  • Meaning they will not be required to obtain the Doctorate Degree.

According to American Academy of Nurse Practitioners there are over 325 Colleges and Universities that Education Nurse Practitioners.

Nurse Practitioners are trained in the following specialties areas:
• Acute Care
• Family Health
• Neonatal Health
• Pediatric
• Women’s Health

Number of Nurse Practitioners Schools in the United States

Nurse Practitioner Degree Areas of Practice
Nurse Practitioner
Sub-specialty Training Areas of Practice (Optional)
• Addition Training Required.
• Sub-specialty areas:
  • Allergy, Cardiovascular, Dermatology, Emergency, Endocrinology,
    Gastroenterology, Hematology & Oncology, Neurology, Occupational
    Health, Orthopedics, Pulmonology, Sports Medicine, & Urology.

Nurse Practitioner Licensing
• Licensed by Board of Nursing in State which the NP Practices.
  • State Dependent.
  • Current RN license in good standing.
  • Nurse Practitioner Degree Verification.
  • Transcripts
  • Passing of Certification Testing
  • Fee Payment for License and Prescribing and Dispensing Authority

Arizona Nurse Practitioner Licensing Requirements
• Arizona Register Nurse License in good standing.
• Nurse Practitioner Degree Verification for Program.
• Sealed Transcripts.
• Payment of a fee $150 for License and $150 for Prescribing and Dispensing Authority.
Arizona Nurse Practitioner Licensing

- Passing of Certification Testing.
  - American Nurses Credentialing Center (ANCC).
  - American Academy of Nurse Practitioners (AANP).
    - Will discuss these further in upcoming slides.
- Renewal every Four Years in Arizona.

Arizona Nurse Practitioner Licensing Renewal

- Arizona Renewal Requires:
  - Licensing in Good Standing
  - National Certification
  - 960 Practice Hours in the past 5 years or Completion of Nurse Practitioner school.
  - Renewal Fee.
    - $160 dollars.

Nurse Practitioner National Certification Bodies

- National Certification is required from one of the two National NP Governing Bodies to Obtain a License and Practice.
  - American Nurses Credentialing Center (ANCC).
  - American Academy of Nurse Practitioners (AANP).
American Nurses Credentialing Center (ANCC)

- Prove Eligibility to Take exam.
- Current RN License.
- Notification from School.
- Application Submitted.
  - Fee $270- $390.
  - Must Pass exam to get Certification.
  
  www.nursecredentialing.org

American Nurses Credentialing Center (ANCC)

- Renewal Process.
  - Every 5 years.
  - Hold Current License.
  - 75 CME Hours.
  - 1,000 Practice Hours.
  - Renewal Fee.
  - $200-350.

American Academy of Nurse Practitioners Certification Program (AANP Certification)

- Prove Eligibility to Take exam.
- Current RN License.
- Notification from School.
- Application Submitted.
  - Fee $240- $315.
  - Must Pass exam to get Certification.

www.aanpcertification.org
American Academy of Nurse Practitioners (AANP Certification).

- Renewal Process.
  - Every 5 years.
  - Hold Current License.
  - 75 CME Hours.
  - 1,000 Practice Hours.
  - Renewal Fee.
    - $120-195.

Nurse Practitioners in Arizona, California, Nevada, and New Mexico

- Arizona 3150 NPs in 2009 (3,503).
- California 15,230.
- Nevada 571.
- New Mexico 753.

Nurse Practitioner Prescribing Privileges in Arizona

- Nurse Practitioner have the Ability to Prescribing:
  - Narcotic and Non-Narcotic Medication.
  - Have an Independent DEA License
  - May Practice and Prescribe without the Supervision of a Physician.

www.azbn.gov
Number of Practicing Nurse Practitioners

- According to the American Academy of Nurse Practitioners website there are over 140,000 Practicing Nurse Practitioners.

Physician Assistant’s Programs

- Began in 1965.
- Started by Dr. Eugene Stead at Duke University Medical Center in North Carolina.
- Began due to Shortage of Primary Care Physicians.

Dr. Eugene Stead

(1908-2005)
Physician Assistant’s Beginnings

- Began with Navy corpsmen who had received medical training in the military.
- Program based on fast-track training of doctors during World War II.
- Began as Certification Programs.

Physician Assistant’s Education

- Bachelor Degree is required for admittance Physician Assistants School.
- After Successful Completion of School.
  - Must Pass National Commission on Certification of Physician Assistants Board to be Certified.
  - Today the Majority of Program’s Award a Master’s Degrees.

Physician Assistant Schools

- According to American Academy of Physician Assistants there are 140 Accredited Programs in the United States.
National Commission on Certification of Physician Assistants (NCCPA) Test

- To Obtain Certification.
  - Graduate from an Accredited School.
  - Application Submitted for Exam.
  - Fee $475.
  - Must Take and Pass the Physician Assistant National Certifying Exam (PANCE).

www.nccpa.net

Physician Assistant’s Certification

- To Maintain National Certification.
  - 100 CME hours Requirement by NCCAP during the Six Years.
  - Sit and Pass the Physician Assistant National Recertifying Exam (PANRE).
    - Application Needed
    - Fee of $350

www.nccpa.net

Physician Assistant’s State Licensing

- Individual State also Require Yearly Continuing Medical Education Hours (CME)s to Maintain State Licensing.
  - Arizona Requires 50 CMEs per year.
  - Annual Licensing Application
  - Annual Fee
    - $ 125 dollars.

www.azpa.gov
Physician Assistant’s Certification

• Nationally Certified Physician Assistants Require.
  • Supervising Physician on their Certification.
  • Cases to be Reviewed based on State Requirement.

Physician Assistant’s Prescribing Privileges

• Physician Assistant May Prescribe Medications Under the Direction of their Supervising Physician.
  • Non-Narcotic medicines.
  • Narcotic Medication Requires a DEA License and a Supervising Physician needs to be Listed on their License.

Physician Assistants Specialty and Subspecialty Areas

• All PA are nationally Certified in Internal or General Medicine.
  • May Focus on other Specialty Areas include.

www.aapa.org
Physician Assistant
Subspecialty Areas

- Family Medicine
- Pediatrics
- Internal Medicine
- General Surgery
- Emergency Medicine
- Occupational Medicine,
- Obstetrics/Gynecology,
- Dermatology.

Number of Practicing Physician Assistants

- According to American Academy of Physician Assistants there are currently 74,469 PA’s in Clinical Practice.

www.aapa.org

Projected NP and PA’s in the work force
Transplant Milestone in Arizona

- First Deceased Donor Kidney Transplant 1969 at Samaritan, Phoenix.
- First Heart Transplant 1979 at University Medical Center, Tucson.
- First Deceased Donor Liver Transplant 1983 at Samaritan, Phoenix.

Transplant Milestone in Arizona

- Living Donor Liver Transplant 2001 at Mayo Clinic Arizona, Phoenix.
- First Single Lung Transplant in 1990 at University Medical Center, Tucson.
- First Living Liver Domino Procedure in 2003 at Mayo Clinic Arizona.

Mayo Clinic Arizona Transplant Center

- Solid Organs Transplanted at Mayo Arizona.
  - Heart.
  - Liver.
    - Deceased and Living Donor Programs.
  - Kidney
  - Simultaneous Combined Kidney and Pancreas.
    - Deceased and Living Donor Programs.
Mayo Clinic Arizona
Transplant Center

Number of Organ Transplants

<table>
<thead>
<tr>
<th>Updated 1-11-11</th>
<th>Month to date</th>
<th>Year to date (YTD: 2010)</th>
<th>Overall YTD 2010 Living Donor</th>
<th>Overall Living Donor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart</td>
<td>22</td>
<td>95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liver</td>
<td>1</td>
<td>60</td>
<td>578</td>
<td>110</td>
</tr>
<tr>
<td>Kidney</td>
<td>10</td>
<td>199</td>
<td>1373</td>
<td>753</td>
</tr>
<tr>
<td>Pancreas</td>
<td>2</td>
<td>26</td>
<td>169</td>
<td></td>
</tr>
</tbody>
</table>

Mayo Clinic Transplant Program Members

- Includes Pre and Post Transplant Nurse Coordinators, Living Donor Advocates, Transplant Pharmacists, Transplant Dietician, Transplant Schedulers, Social Workers, Hospital Transplant Bedside Nurses, Call Center Staff, Secretaries, Financial Coordinators and Chaplains.
- They are essential to the Transplant Process for all Solid Organs Transplant to be Successful.

Mayo Clinic Arizona
Heart Transplant Providers

- 5 Cardiothoracic Surgeons.
- 4 Transplant Cardiologist.
- 9 AMLP (1 NPs and 8 PAs).
Mayo Clinic Arizona
Liver Transplant Providers

• 3 Transplant Surgeons.
• 8 Hepatologist.
• 3 AMLPs (2 NPs 1 PA).

Mayo Clinic Arizona Kidney and Kidney/Pancreas Transplant

• 3 Transplant Surgeons.
• 6 Transplant Nephrologists.
• 5 Surgical AMLPs. (1 NP and 4 PAs).
• 2 Clinical AMLPs. (1 NP and 1 PA).

Cardiac Transplant Advanced Mid-Level Providers Role

• First and Second Assist.
  • Cardiothoracic Surgery, Heart Transplant and Organ Procurement.
• Perform Endoscopic Vein Harvesting
  • Coronary Artery Bypass Grafts (CABG).
• Hospital and Outpatient Management.
  • Intensive Care & Surgical Floor.
Cardiac Transplant Advanced Mid-Level Providers Role

- Congestive Failure Clinic Patients.
  - Inpatient and Outpatient.
- Ventricular Assist Device (VAD) Patients.
  - Inpatient and Outpatient.
- Manage the Anticoagulation Clinic.
  - Three Different Mayo Clinic Arizona locations.

Liver Transplant Advanced Mid-Level Providers Role

- End Stage Liver Disease (ESLD),
  - Hospital and Outpatient.
- Hepatology Consultation and Management.
  - Hospital and Outpatient Clinic.
- Liver cancer treatments.
  - Liver Transplant Management.
  - Living Donor/Recipients Care.

Liver, Kidney, and Kidney/Pancreas Surgical Advanced Mid-Levels Role

- First and Second Assist.
  - Transplant, Procurement and Surgery.
- 24 hour Hospital Management.
  - Intensive Care and Floor Care.
- Outpatient Clinic
  - Surgical Transplant Evaluations, Wound Management, Hemodialysis catheter removal.
Kidney and Kidney/Pancreas Outpatient Advanced Mid-Level Role

- Transplant Annual Evaluations.
- Pre/Post Transplant Patients.
- Outpatient Transplant Clinic.
  - Acute and Long-term Transplant Management Care.
  - Transplant Complication Management.
- Dialysis Management at Dialysis Units in Metropolitan Area.
- Starting End Stage Renal Clinic.

Questions?

References

References


