The Role of the Nurse Practitioner in a Collaborative Cardiovascular Setting

By Stephanie Liles, CRNP
History of NP

- 1965 Dr Loretta Ford & Dr Henry Silver introduced the first certification nurse practitioner program at the University of Colorado due to a shortage in primary care physicians & healthcare.
- 1979 15,000 Nurse practitioners in the U.S.
- Master’s Degree in Nursing in late 1970-80’s.
- 2000 a NP could legally practice in every state.
What is a nurse practitioner?

- A Nurse Practitioner (NP) is a Registered Nurse who has completed both Master’s Degree in Nursing and National Board Certification.
- NPs use extended skills, knowledge, and experience in the assessment, diagnosing, and implementation with extensive clinical training.
- With the increase of NPs in the acute care setting, research has shown that the care is cost effective and is promoting a high degree of patient satisfaction.
Role of cardiovascular NP in a collaborative setting

- The American College of Physicians (ACP) recognizes that NP’s and their collaborating physicians have common goals of providing patient-centered, high-quality care, and improving the health status of patients

- NP’s serve as front-line caregivers initiating patient management using protocols with their collaborative physicians to initiate evidence-based practice
The future of cardiology...

- Cardiologist shortage:
  - 1600 at Present
  - 16,000 by 2025
  - By 2050 two-fold

- By 2030 estimated 3,000 CV surgeons in U.S.

- 20.8% NP’s focus on Cardiology
The future of cardiology...

- By 2030, 40.5% of the US population is projected to have some form of CVD. These increases translate to an additional 27 million people with hypertension, 8 million with CHD, 4 million with stroke, and 3 million with heart failure relative to 2010.
The future of cardiology...

- The cardiologist of the future will be called on not only to perform appropriate and effective diagnostic and therapeutic procedures with a high degree of skill and competence, but to also operate as part of a team working in the community setting to reduce and mitigate risks of heart disease, reducing the need for hospitalization and expensive care. One thing is for sure: Our future workforce will be different than our current one (Wann, 2014).
NURSE PRACTITIONERS

NPs are the providers of choice for millions of Americans. NPs evaluate patients, diagnose, write prescriptions and bring a comprehensive perspective to health care.

PRIMARY CARE FOCUS
NPs are choosing primary care more than physicians and physician assistants. In 2016, more than 80% of NPs were prepared in primary care programs, while only 14.5% of physicians entered a primary care residency.

AREA OF PRIMARY CARE PREPARATION
- 55% Family
- 22% Adult and Geriatrics
- 6% Women’s Health
- 6% Pediatrics

REQUIREMENTS FOR PRACTICE
- State NP Licensure/Registration
- National Board Certification
- Graduate Nursing Education
- Registered Nurse License
- Bachelor’s Degree in Nursing

6+ YEARS OF ACADEMIC AND CLINICAL PREPARATION

INCREASING IN NUMBER
The number of nurse practitioners is expected to rise dramatically by 2025:

- 2019: 87,000
- 2020: 89,000
- 2025: 244,000

NPs BY THE NUMBERS
- 72% accept Medicare
- 78% accept Medicaid
- 81% accept Private Insurance
- 77% accept Uninsured

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AANP
American Association of NURSE PRACTITIONERS™
Diverse Cardiology Setting

- ICU/Hospital
- Private practice
- Electrophysiology
- Cardiovascular surgery
- Cardiac Rehab
- Nuclear Lab
- Cath Lab
- Transplant
- Home Health/Hospice
- Research
Role of Cardiovascular Nurse Practitioner

Health Promotion

- Cardiovascular disease
- CHF
- HTN/HLD
- AFIB
- Cardiomyopathy
- PAD
- Metabolic syndrome

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Role of Cardiovascular Nurse Practitioner
Diagnose & Treat

- In-depth cardiovascular history & assessments
- Monitoring & interpreting lab work data, radiology, hemodynamics and other test data, and initiate treatment
- Interpret EKG
- Initiating emergency measures
- Improve Quality Assurance/Metrics
Role of Cardiovascular Nurse Practitioner
Skills/Procedures

- Arterial line
- Central venous line
- Chest tube
- Groin Access
- Deploy closure devices
- Intubation
- Discontinue IABP
- Discontinue Temp Pacing Wires
- Nuclear Stress Tests
Role of Cardiovascular Nurse Practitioner
Discharge Planning

- Discharge teaching
- End of life care/hospice
- Cost-effective care
- Prevent hospital readmissions
- Emotional support/counseling
Case Study

- 78yoWM who presents with dyspnea, weakness, and LE edema over the past two weeks. He has known NICM, EF 20%, HTN, CKD, and severe aortic stenosis AVA 0.8, mean PG 43mmHg
- Vitals: BP 95/42, HR 96, RR 22, O2sat 92%
- Labs: Na 133, K 4.1, BUN 30, Creat 2.0, Glu 98, BNP 2022
- EKG: NSR LVH Repol abnormalities
- ABG: pH 7.30, CO2 30, Po2 50, HCO3 18
Case Study

- Overnight pt I/O: +800 I: 2500/O: 275
- SBP 85/40, HR 100, RR 26, o2sat 90% 4LNC
- Labs: Na 129, BUN 29, Creat 2.3
- Meds: Lasix 10mg/250mL @ 10cc/hr
- What now?

Add Inotropes: Dobutamine gtt

Refer for TAVR; Fluid Restriction
Consider Vasopressin Receptor (Tolvaptan)
Role of Cardiovascular Nurse Practitioner

Continuing Education

- ACC/AHA guidelines
- Pharmacology
- Evidence-based guidelines
- Cardiac imaging and assessment
- American Board of Cardiovascular Medicine:
  - Board certified in Electrocardiography & Cardiology
Role of Cardiovascular Nurse Practitioner

Organizations

- CANPA – Central Alabama NP Association
- ACC American College of Cardiology
- AHA – American Heart Association
- ASH – American Society of Hypertension
- HFSA – Heart Failure Society of America
- HVSA – Heart Valve Society of America
- ISMICS – International Society for Minimally Invasive Cardiothoracic Surgery
- Women Heart
Future of NP

• Forbes listed NP as 4th for in-demand in jobs in 2015

• Nurse Practitioner Alliance of Alabama (NPAA) is working to increase our scope of practice

• 20 plus states have NP independent practices with the hire of Physician overseer
“They may forget your name but they will never forget the way you made them feel.”
– Maya Angelou


