The Role of the Acute Care Nurse Practitioner: New Models for Acute Care Delivery in an Academic Medical Center

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Objectives

• Identify current events that expanded opportunities for nurse practitioners to practice in acute care settings
• Describe two acute care nurse practitioner (ACNP) models
Institute of Medicine (IOM) Future of Nursing Recommendations

• Advanced Practice Nurses should be able to practice to the full extent of their education
• Expand opportunities for nurses to lead and manage collaborative efforts with physicians and others to redesign and improve practice environments and health systems.

Institute of Medicine (IOM), 2011
Expanding Opportunities...WHY?

- Acute Care Nurse Practitioners (ACNPs) play significant role toward improving quality and enhancing efficiency.
- Surge in acuity levels of hospitalized patients leading to advanced practitioners managing complex patients.
- Regulations set forth by Accreditation Council for Graduate Medical Education (ACGME)
  - Restricted residents to work an average of only 80 hours/week.
- Challenges of decreasing LOS.
We are the Future of Nursing

• Nurse leaders at MGH took leading roles in design and creation of 2 collaborative inpatient ACNP health care models:
  • The Academic Hospitalist Service
  • The Oncology Inpatient Nurse Practitioner Service
• Development and Implementation of these two models are aligned with the recommendations put forth by IOM “The Future of Nursing: Leading Change, Advancing Health”

• The two ACNP care delivery models also align with the AONE Guiding Principles addressing:

  “The Role of the Nurse in Future Patient Care Delivery”

• http://www.aone.org/resources/PDFs/AONE_GP_Future_Patient_Care_Delivery_2010.pdf
Background

What is in the literature?

- Two common themes about ACNPs
  - continuity of care
  - easy accessibility of ACNPs to the staff nurses due their constant presence on the units.
Background Literature cont’d

• Improved efficiency and quality of care when ACNPs at UCSF admitted and managed an acute medical population previously cared for by house staff

  – Positively impacted quality of care due to continuity of care and availability of NPs throughout the day to interact with patients, families and nursing staff

Howie & Erickson, 2002
• ACNPs improved patient flow and continuity of care to pediatric ICU patients and families

Brown et al, 2008
Background

Literature cont’d

- n= 145
- Integrating NPs in ICU setting positively impacted patient care by enhancing workflow
- Having more time to discuss patient care issues w/ nurses and interact more with patients' families than physician colleagues
Academic Hospitalist Service (AHS)

- Spring of 2010, department of medicine in collaboration with medical nursing service developed a new model of care called the Academic Hospitalist Service (AHS)
- Goal: expedite admissions of acutely ill medical patients from our ED
- Collaborative Care Team – hospitalists, ACNP's, medical students
Figure 1. AHS Model
Academic Hospitalist Service
Care Delivery Team

7am-7pm:
• one hospitalist
• one ACNP, two 4th year sub-interns.
• The physician and ACNP care for 13 patients

7pm-7am:
• one hospitalist for 13 patients
Q: What are the desired experiences and qualities required by the role of the ACNP s?

A: NPs should have:
- experience caring for acutely ill patients on a general medical inpatient unit or in an ICU
- pioneering mindset
- be flexible, adapt well to change and be proactive in the ongoing development of a newly formed service.
Academic Hospitalist Service

- By May 2010, 2.5 part-time acute care nurse practitioners were hired (two 36 hrs/wk, one 24hrs/wk)
- Two NPs were novice to the advanced practice role
  - Both were experienced medical ICU nurses
- One NP had several years NP experience in a similar model and worked as a staff nurse at our institution.
Academic Hospitalist Service

ACNP Orientation

Essential Elements
Clinical education, socialization, networking and mentorship

Achieved by.....
Academic Hospitalist Service

ACNP Orientation

• A 4-week orientation for the two novice ACNPs and a 3 week orientation for the experienced ACNP.

• Shadow days with experienced ACNPs and physicians within the medical, oncology and cardiac services – learned organizational culture, informatics, consultation process, clinical assessment, care management as well as role development
Academic Hospitalist Service
ACNP Orientation cont’d

*Shadow Days with AHS Hospitalists*

• Each ACNP worked with the AHS Hospitalists for 4-7 days prior to having full responsibility for patient care
• The ACNPs were able to co-coordinate plans of care with AHS Hospitalists, an experience which was described as an invaluable part of the orientation
Academic Hospitalist Service

ACNP Orientation cont’d

• Clinical Simulations
  – 4 hour clinical simulation program
  – Developed by the nursing simulation staff in the Norman Knight Center for Clinical & Professional Development and the Clinical Directors of the NP teams
  – 4 scenarios: pulmonary embolism, urosepsis, gastrointestinal bleed and hypercalcemia
Academic Hospitalist Service

Staffing

- ACNP is scheduled to work 7am-7pm seven days/week
- ACNPs rotate responsibility in devising their 8 week schedules

Reporting Structure:

- ACNPs report operationally to the nursing director
- A medical director serves as their supervisory physician
- ACNP is the responding clinician (works in lieu of an intern)
Academic Hospitalist Service

Multidisciplinary Collaboration

• Collaborates daily with multiple disciplines necessary to provide seamless care
• Participates in patient rounds along with staff nurses, attendings, case managers, physical therapist, nutritionist and social workers
• Provides more opportunities for timely discussion and resolution of patient care issues and staff education
Academic Hospitalist Service

Multidisciplinary Rounds
Academic Hospitalist Service

Continuing Education

- AHS Hospitalist is available to provide ACNPs with input, mentorship and assistance with emergencies
- Clinical simulations are offered every few months – work in progress
- ACNP continuing education programs are offered on a monthly basis
Academic Hospitalist Service

Summary

• New service opened July 2010
• Comprised of 13 beds
• Admit house and private patients
• ED access unit
• 7am-7pm
  • Hospitalist, NP & 4th year sub interns
• 7pm - 7am
  • a Hospitalist cares for all patients
ACNP Practice Model

• ACNPs manage care of their patients in collaboration with the attendings
• ACNPs are the responding clinician (practice in lieu of residents)
Academic Hospitalist Service

Data Collected

• Compared data between AHS and 2 other medical teams that do not have an NP on their care teams.
• LOS
• Pre-noon Discharges
• Readmission Rates
Inpatient ALOS by Team, CY11

- AHS: 6.08 days
- Team A/E: 6.23 days
Percent of Discharges before Noon by Team, CY11

- AHS: 22.8%
- Team A/E: 13.9%
30-Day Readmission Rate by Team, FY11

- AHS: 14.5
- Team A/E: 15.3
Oncology Inpatient NP Service

• 2009 Cancer Center charged with developing an inpatient service in response to ACGME requirements.
• Goal: provide inpatient coverage for 14 medical oncology inpatient beds
• Cancer Center team in collaboration with the Oncology Nursing service developed a new inpatient NP service
Oncology Inpatient NP Service

Evaluated 3 models of practice:

- Hospitalist Model
  - Physician whose primary practice is hospital medicine
- Moonlighter Model
  - Physician who has a primary job and works extra shifts as a secondary job
- Nurse Practitioner Model
  - Dedicated inpatient NP providing inpatient care.
Oncology Inpatient NP Service

Advantages of an Inpatient NP service:

• Collaboration and continuity with oncology Attendings and outpatient NP’s
• Dedicated to an identified oncology unit
• Patient satisfaction
• Quality and safety
• Ability to decrease LOS
• Enhancement of multidisciplinary practice
Figure 2. OINPS Model
Oncology Inpatient NP Service

Patient Population

• Solid tumor, lymphoma and sarcoma patients
• Admitted for acute care symptoms or medical management related to disease progression, treatment or end of life.
• Required to have a stable cardiopulmonary status.
• Admitted from outpatient practices, oncology infusion unit, emergency department, home or outside hospital
Oncology Inpatient NP Service

June 2010

• 14 medical oncology beds (2 units)
• 12 hour shifts, 24/7 service
• 9.5 FTE’s approved
• Staffing: 7a-7p two NPs
  • 7p-7a one NP
  • 3p-3a one NP
Oncology Inpatient NP Service

Worked closely with HR Recruiter

- Master’s degree in nursing
- NP certification, preparation in either adult, family or acute care educational track
- Oncology experience preferred
- Acute care inpatient experience required
- ACLS required
Oncology Inpatient NP Service

Characteristics of NP Candidates

• Motivated
• Self-directed, ability to grow and develop their role
• Flexible
• Ambitious
• Leadership skills
• Resilient, ability to adapt to change
• Collaborative team player
Oncology Inpatient NP Service

• By April 2010, 9.5 full-time and part-time NPs were hired
  • 39 hr work week
  • 36 hr work week
  • 24 hr work week
• Diverse NP and nursing experience:
  • Oncology, acute care medicine, emergency, neuro ICU, primary care
  • Experienced NPs
  • Novice NP with solid nursing experience
Oncology Inpatient NP Service Orientation

10-12 week orientation

• Developed in collaboration with Clinical Director and Oncology Nursing Director of NP service
• Orientation started before service “went live”
  • NP Credentialing
  • Shadow experiences with Oncology Attendings, NPs and resident teams
• Operations of inpatient processes
• Educational Curriculum
• Simulation Lab
• Education of new service to Cancer Center Clinicians, DOM, Admitting, ED, other services.
Oncology Inpatient NP Service Orientation

Organizational and Operational Processes

- Admissions/Discharges
- Clinical Assessments
- Multidisciplinary Rounds
- Daily plan of care
- Daily documentation
- Order writing
- Consults
- Billing procedures
Oncology Inpatient NP Service Orientation

Development and recognition of inpatient NP Role

- Important new member of the team
- Integrated into the unit and staff
- Collaborates with Multidisciplinary team: MD Attendings, Nurses, Case Managers,
- Social worker and other disciplines
Oncology Inpatient NP Service Orientation

Educational Curriculum, weekly classes

- Infectious disease
- Renal disease
- Oncologic emergencies
- Chemotherapy overview
- Pulmonary diagnoses
- Cardiac diagnoses
Ongoing Education

- Clinical Director meets with NP team twice a week to review patients or discuss specific topics
- Daily Multidisciplinary Rounds provides education
- Simulations every 4-6 months
- NP educational programs offered monthly
Oncology Inpatient NP Service

Summary

• June 2010, continues to evolve
• Initially 14 NP Beds, expanded to 28 Beds September 2011
• 2 oncology units: Medical Oncology and BMT/Leukemia
• Currently 15.5 FTEs
• 4 NPs 7a-7p, 1 NP 11a-11p
Oncology NP Data Collection

Comparison to Resident Team 3

• LOS
• Readmission Rate
ALOS for Oncology NP Team Compared to Housestaff Team by Oncology Unit

<table>
<thead>
<tr>
<th>Unit</th>
<th>Team 3</th>
<th>Onc NP</th>
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<tbody>
<tr>
<td>L09</td>
<td>6.33</td>
<td>5.43</td>
</tr>
<tr>
<td>L10</td>
<td>13.73</td>
<td>8.7</td>
</tr>
<tr>
<td>All</td>
<td>8.82</td>
<td>6.57</td>
</tr>
</tbody>
</table>
30 Day Readmit Rate, Oncology NP Team Compared to Housestaff Team

- Team 3: 18.2
- Onc NP: 15.9
Nurse Practitioner Survey

- Informal Survey of AHS and Oncology Nurse Practitioners
- n=16 NPs
- Demographics
  - 9.41 Years as a RN
  - 5.22 Years as a NP
  - 1.82 Years in current role
Nurse Practitioner Survey

How satisfied are you with the NP model in which you work?

Overall satisfaction was excellent (n=16)

- 0% very dissatisfied or dissatisfied
- 6% (1) somewhat dissatisfied
- 19% (3) somewhat satisfied
- 63% (10) satisfied
- 13% (2) very satisfied
Nurse Practitioner Survey

What are your favorite aspects of your role?

- The patients
- Autonomy
- Part of a strong team
- Continuity of care
- Critical thinking and decision making
Nurse Practitioner Survey
Favorite Aspects of the role

• “Always connecting with patients and families. This is the nursing part of nurse practitioner”

• “Love inpatient medicine, the autonomy and the varied clinical diagnoses we see”

• “Team atmosphere, direct patient interaction and care”

• “Constantly changing patients, medical conditions, working with other disciplines and learning how to care for new diagnoses”

• Collaboration between attendings & NPs – immediate coverage/backup if patient decompensate
Nurse Practitioner Survey

What are the least favorite aspects of your role?

• Change in expectations
• Night shifts
• Numerous admissions and discharges
• Assignment load
• Sporadic education
Nurse Practitioner Survey
Least Favorite Aspects of the role

• Limited coverage from other NPs for sickness and vacations due to the small size of our team

• Difficult to be part of hospital-wide committees due to our irregular schedule

• Challenge of caring for private patients only versus caring for both house and private patients
Nurse Practitioner Survey

Please rate your satisfaction with your relationships with staff nurses (rating scale - excellent to poor)

94% ACNPs rated relationships with staff nurses as good to excellent
Summary

• The opportunity to develop and implement 2 ACNP models of care helped create and shape the direction of innovative models of patient care
• These models were intended to
  • Improve patient satisfaction
  • Positively impact the patients LOS
  • Facilitate meeting ACGME requirements
Summary cont’d

• We are well aligned with the IOM report on the Future of Nursing
• Two areas that this report focuses on include:
  • How nurses can best contribute to healthcare delivery
  • Nurses should be full partners, with physicians and other health professionals
We feel that we are well on our way to reaching those goals......
Questions & Comments
All Welcome!
References


References cont’d
