Advanced Practice Providers in the Intensive Care Unit
The UCSF Experience

Thomas Farley MS, NP, Assistant Clinical Professor
Department of Critical Care Medicine
“The real challenge is for each of us to determine where we feel we can make the most impact.”
Our experience at UCSF

Evolution of Critical Care Nurse Practitioner Role Within a US Academic Medical Center

Thomas L. Farley, MS, ACNP, and Geoffrey Latham, MS, ACNP

The UCSF Experience

- 4 NP clinicians added in 2004
- Limitations on available MD trainees
- Goal of providing immediate critical care consultation 24 hours a day
- 60 adult critical care beds
- NPs only in MedSurg ICU
Advanced Practice Providers in the ICU; The UCSF Experience
Evolution of a NP practice

- 18 NPs covering adult ICUs in 2015
- Additional coverage at new Mission Bay hospital began February 2015
- Expansion to 90 adult critical care beds
- Med/Surg, Cardio/Thoracic, Neuro ICUs
- At times no residents on team
- Always 2 NPs on service 24/7
Team at work
Why utilize APPs in the ICU?

- Imbalance in the supply of and the demand for intensivists
- Team based approach to care delivery
- It is taking place in the USA, Canada, and the UK already
- The literature shows it is safe, effective, and more human than a robot
NPs in Critical Care

- Memorial Sloan Kettering Cancer Center
- Columbia University
- Emory University
- Henry Ford Hospital Detroit
- Cleveland Clinic
- Vanderbilt University
- UC Davis, UCLA, UC Fresno, UCSF
- Oregon Health Sciences University
NPs in Critical Care

Recently published


- Acquired 2009-10 data from Cerner APACHE system
- Adult patients in 29 medical and mixed ICUs in 22 hospitals
- Total of 39,500 patients
- Examined exposure to an ICU that employed NPs/Pas
- Primary outcome was in hospital mortality
Recently published


- 21 (72%) of ICUs had NP/PAs
- 76.5% of patients received care in ICUs with NP/PAs
- Total of 30,000 patients
- Examined exposure to an ICU that employed NP/PAs
- Primary outcome was in hospital mortality
Recently published


- Results:
  - Unadjusted and risk adjusted mortality was similar between groups

- Conclusion:
  - NPs/PAs do not increase mortality when providing critical care services
Erika Wilson NP

Advanced Practice Providers in the ICU; The UCSF Experience
Mirrored at SFGH

- At SFGH level 1 trauma center
- Recognized need for quality control and improvement
- Added 4 NPs to service in 2001
- Current environment of limited housestaff and work hour reductions
- Now 12 NPs in trauma/general surgery
- At times no interns on teams
Experience at UCSF and SFGH

- Employed by hospital not by MD group
- Medicare part A not part B
- No independent billing performed
- Close contact with the UCSF SON
Gil Ponsones NP

Advanced Practice Providers in the ICU; The UCSF Experience
NP responsibilities

- Follow and teach standard ICU practices and protocols
- Quality standards and improvement
- Intervene and direct or provide appropriate initial therapy
- First call at UCSF and SFGH
- Overnight shifts at UCSF and SFGH
Visiting scholars

Advanced Practice Providers in the ICU; The UCSF Experience
Critical Care NP Duties

- History taking and physical exams
- Entering admission histories and physical in to the EMR
- Entering daily progress notes into the EMR
- Writing admission orders and routine orders
- Independently performing procedures
- Rounding with the critical care team and presenting patients
- Implementing proven care bundles (sepsis, early mobilization, DVT prophylaxis)
Critical Care NP Duties

- Consultative role to admitting services
- Consultative role to bedside RNs
- Guidance of house staff
- Responding to code blue activations
- Assisting with rapid response consultations
- Serving on hospital wide multidisciplinary committees
- Precepting acute care nurse practitioner students
- Attending morning teaching and monthly morbidity and mortality conferences
Our physical therapists
Critical Care NP Procedures

- Central venous catheter insertion
- PICC insertion
- Arterial catheter insertion
- Chest tube insertion
- Lumbar puncture
- Suture and drain removal
- Airway intubation
- RN First Assist for OR role
Advanced Practice Providers in the ICU; The UCSF Experience
Why it works

- It is essential to have appropriate conduits for collaboration and supervision
- Supportive attending MDs
- Buy-in from the ICU RNs
- NPs have experience as ICU RNs
- SON provides excellent job candidates
- Dedicated and professional group of NPs
- Competency based orientation and training for all new NPs
NPP Billing in Critical Care

- Reference CMS transmittal #1548
- Services may be provided by qualified NPPs and reported for payment
- Unlike outpatients no ‘incident to’ or ‘shared’ visits allowed
NPP Billing in Critical Care

- For Medicare NP billing as hospital employees (part A) not allowed
- To bill Medicare NPs must be employed by clinical departments or groups
- For Medicare, reimbursement is 85% of published MD fee schedule
- NPs may be credentialed by private payor
- Private payors may reimburse up to 100%
Our pharmacists
Survey of physician fellowship programs


- Survey of 331 ACGME critical care fellowship directors
- Roughly 38% response rate
Fellowship programs
Fellowship survey
Joffe et al, Journal of Critical Care 2014

<table>
<thead>
<tr>
<th>Fellowship directors perceptions of APN roles</th>
<th>Yes</th>
<th>No</th>
<th>Don’t Know</th>
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<tbody>
<tr>
<td>Saves time during rounds and evaluating new patients</td>
<td>78%</td>
<td>4%</td>
<td>15%</td>
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<tr>
<td>Aids in maintaining continuity of care</td>
<td>86%</td>
<td>6%</td>
<td>5%</td>
</tr>
<tr>
<td>Aids communication with healthcare team and families</td>
<td>86%</td>
<td>3%</td>
<td>9%</td>
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<tr>
<td>Aids in development of quality initiatives</td>
<td>59%</td>
<td>23%</td>
<td>17%</td>
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<tr>
<td>Aids in maintaining workflow</td>
<td>73%</td>
<td>5%</td>
<td>16%</td>
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## Fellowship survey

Joffe et al, Journal of Critical Care, 2014

<table>
<thead>
<tr>
<th>Interactions of APNs with medical trainees/fellows</th>
<th>Yes</th>
<th>No</th>
<th>Don’t Know</th>
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<tbody>
<tr>
<td>Aid in fellow training (per program director)</td>
<td>62%</td>
<td>21%</td>
<td>12%</td>
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<tr>
<td>Aids in fellow training (per fellow)</td>
<td>54%</td>
<td>10%</td>
<td>32%</td>
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<tr>
<td>Participate in didactic discussion during rounds</td>
<td>72%</td>
<td>20%</td>
<td>4%</td>
</tr>
<tr>
<td>Participate in ICU related research activities</td>
<td>35%</td>
<td>50%</td>
<td>10%</td>
</tr>
<tr>
<td>Perform procedures traditionally done by fellow</td>
<td>54%</td>
<td>37%</td>
<td>5%</td>
</tr>
<tr>
<td>Are supervised by fellows during procedures</td>
<td>38%</td>
<td>50%</td>
<td>6%</td>
</tr>
<tr>
<td>Are supervised by residents during procedures</td>
<td>5%</td>
<td>86%</td>
<td>4%</td>
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UCSF Mission Bay Hospital
Preparing NPs for the ICU

- Focus of education and national certification
- Acute Care: generally inpatient care
- Adult and Family: primary care
- Current recommendation by National Council of State Boards of Nursing is to restrict intensive care roles to acute care nurse practitioners
Preparing NPs for the ICU

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Struggles

- NP education and certification focused on either acute care or primary care
- Some specialties exist but no standards for surgical or critical care
- New grad ACNPs require additional extensive training in order to succeed as critical care provider at an academic medical center
Practice Transition Programs

- Generally called NP residencies or fellowships
- Programs exist at Emory, Vanderbilt, Carolinas Health Care, Mayo Rochester, Hopkins, Univ of Maryland
- One year programs for new grad NPs
- Credentialed and salaried employees
UCSF NP Fellowship

- First cohort in September 2014
- Initiative launched by transplant surgeon Dr. John Roberts
- From idea to interviewing in 6 months
- Rotations in ICU, KTU, LTU, Trauma, Vascular, NeuroSurg, IR
- ANCC Practice Transition Program Accreditation available
NP fellowship goals

- Provide pool of highly trained clinicians for future labor needs
- Address gaps in the educational component of masters prepared NPs
- Acknowledge that surgical and critical care is a challenging field
Product of UCSF

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Product of UCSF

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