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**Achieving Mile-High Goals with Innovative Strategies for Clinical Education**

*Angel Chen, RN, MSN, CPNP  
Victoria F. Keeton, RN, MS, CPNP, CNS  
Mary Lynch, RN, MS, MPH, PPCNP-BC, FAAN  
Annette Carley, RN, MS, NNP-BC, PPCNP-BC  
UCSF School of Nursing*

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**Part I - Interprofessional Education:  
Building Blocks for Successful  
Collaboration in the Clinical Setting**



*Angel Chen, RN, MSN, CPNP<sup>1</sup>  
Maria Wamsley, MD<sup>2</sup>  
Josette Rivera, MD<sup>2</sup>  
School of Nursing<sup>1</sup> and School of Medicine<sup>2</sup>*

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**Objectives**

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- Discuss the importance of IPE in training of future health care professionals
- Present examples of IPE curriculum at our institution
- Discuss supportive mechanisms to promote IPE and IPCP in the clinical setting

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### Common Language

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**Interprofessional Education (IPE):**

*When students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes (WHO, 2010)*

**Interprofessional Collaborative Practice (IPCP):**

*When multiple health workers from different professional backgrounds work together with patients, families, carers, and communities to deliver the highest quality of care (WHO, 2010)*

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### Competencies

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IOM's Report: *The Future of Nursing*, 2010

NONPF NP Core Competencies, 2011

IPEC Core Competencies for Interprofessional Collaborative Practice, 2011

Competency Domain 1:	Values/Ethics for Interprofessional Practice	(VE)
Competency Domain 2:	Roles/Responsibilities	(RR)
Competency Domain 3:	Interprofessional Communication	(CC)
Competency Domain 4:	Teams and Teamwork	(TT)

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### IPEC Competencies Selected

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- **VE5:** *Work in cooperation with those who receive care, those who provide care, and others who contribute to or support the delivery of prevention and health services.*
- **CC3:** *Express one's knowledge and opinions to colleagues from different professions involved in patient care with confidence, clarity, and respect, working to ensure common understanding of information and treatment and care decisions.*
- **TT5:** *Apply leadership practices that support collaborative practice and team effectiveness.*
- **TT7:** *Share accountability with other professions, patients, and communities for outcome relevant to prevention and health care.*
- **TT10:** *Use available evidence to inform effective interprofessional collaboration in the delivery of patient care.*

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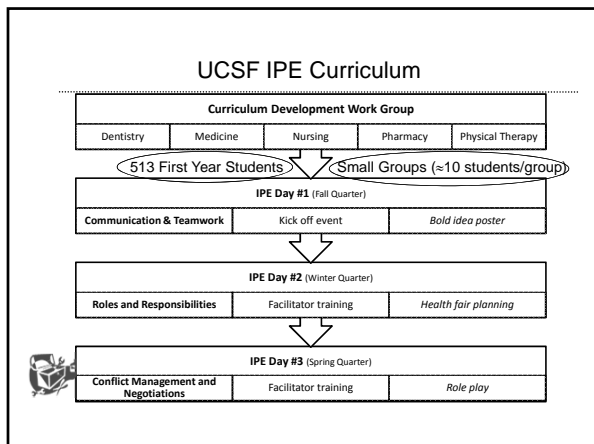
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### IPE Day #1: Communication and Teamwork

**Bold Actions!!**

1. Extend our services to underserved communities
2. Students learn from each other through shared experiences
3. To start with the student's interests and needs, we will create a patient-centered, goal-directed, interprofessional student clinic
4. Students work to develop the skills and community that we need
5. Students who have completed the interprofessional course receive some free services to the UCSF community
6. Share the story with other interprofessional teams at UCSF and beyond

<http://www.ucsf.edu/news/2013/10/109571/students-unleash-power-new-collaborations-interprofessional-education-day>

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### IPE Day #2: Roles & Responsibilities

#### Development of a Team

- Phases of team development
  - Forming = creation of the group
  - Norming = norms and patterns worked out
  - Storming = tasks and roles worked out through conflict
  - Performing = team working together
- Different roles within a team
  - Facilitator, recorder, timekeeper
  - Initiator, elaborator, summarizer
  - Supporter, compromiser, consensus taker
  - Encourager, gatekeeper

#### Interprofessional Team Approach

Interprofessional care is shared leadership, patient-centered, and goal-directed. Equal emphasis is given to education, counseling, and treatment.

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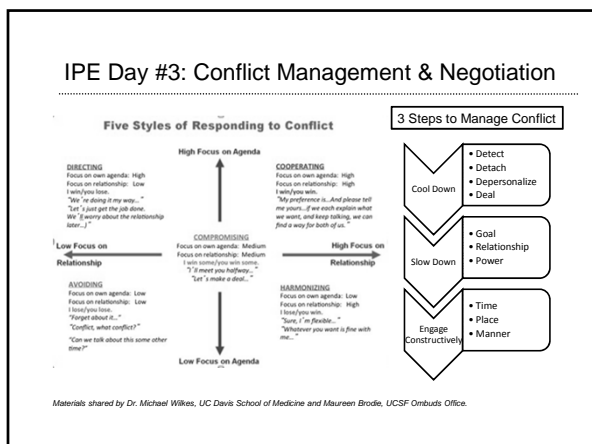
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### IPE Day #3: Conflict Management & Negotiation




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### Lessons learned...

- Students most interested in other profession's training, scope of practice, and roles and responsibilities
- Students want a social gathering to simply get to know each other
- Students want real life clinical examples
- Facilitators benefited from training on small group facilitation, particularly with early learners from multiple professions
- *Next Phase:* Flipped classroom with use of MOOC paired with face-to-face sessions for application of skills

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### IP Standardized Patient Exercises (ISPE)

- Students from Dentistry, Medicine, Nursing, Pharmacy, Physical Therapy, Social Work & Nutrition – teams of 4
- Group interview of a standardized patient (*older adult with comorbidities who fell*)
- IP team formulates a collaborative comprehensive treatment plan
- Standardized patient provides feedback on team communication/professionalism skills
- Faculty-led debrief
- Learners complete survey (Attitude Toward Health Care Teams)
  - improved attitudes towards team efficiency and team value
  - learned about other professional roles
  - increased comfort working collaboratively on IP teams



Wamsley et al. Journal of Interprofessional Care 2012. Funding support from UCSF Instructional Grants Program

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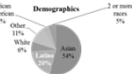
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## IP Community Service Learning Project

The project utilized community-participatory principles and Plan-Do-Study-Act (PDSA) Cycles, supported interprofessional training and collaborations between PNP students and Pediatric residents, and implemented evidence-based strategies to develop culturally-sensitive injury prevention programs at Family Connections, a family resource center.

**Demographics**

- Asian 54%
- African American 4%
- Other 17%
- White 4%
- Latino 19%

**Topics (delivered in English/Chinese/Spanish)**

1. Food Safety
2. Home Safety

**Targeted Audience**

- Caretakers of the young children (0-5 yr)
- School-age Children (6-12 yr)
- Family Connections Staff

**Sample Learner Reflections**

*"I have learned to be extremely patient, flexible, and culturally considerate while working with a diverse group of students, faculty, staff, children, caregivers, and other shareholders."*

*"Working inter professionally was a very rewarding experience. Though coordinating schedules was a little tricky, everyone was very committed and it was helpful to understand how similar our perspectives are as pediatric providers from different approaches, even if our focuses differ some."*

Funded by University of California San Francisco University Community Partnership Grant

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## Preceptors' Preparation for IPE/IPCP

- Minimal data in the literature on role of preceptor who works with trainees from other professions
- Ethnographic observational pilot study on preceptors (MD and NP) who work with NP students and medical trainees (medical students/residents)
- Preceptors in support of training learners from other professions
- Preceptors want faculty development on best practices in working with trainees from other professions
- Many variables to support or inhibit the deliberate teaching of IPCP
  - Logistical
  - Environmental
  - Technical



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## Faculty Development

- IPCP training
- Curriculum & scope of practice of other professions
- Facilitation skills to stimulate IPCP in the clinical setting
- Role model IPCP behaviors
- Role of IPE/IPCP Champion



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**Recommendations**

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1. Provide foundational skills for learners and faculty preceptors
  - ✓ Values and ethics for IP practice
  - ✓ Knowledge of roles and responsibilities
  - ✓ Communication
  - ✓ Teamwork
2. Provide opportunities for skills application
  - ✓ Small group settings
  - ✓ Simulation
  - ✓ IP service learning projects
  - ✓ IP clinical opportunities
  - Facilitated debrief
  - Reflection

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**Part II - Leveraging Community Partnerships:  
Everybody Wins**

Victoria F. Keeton, MS, RN, CPNP, CNS  
*Associate Clinical Professor  
University of California, San Francisco  
Department of Family Health Care Nursing*

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**Objectives**

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- Discuss the current challenges clinical programs face in finding suitable placements for trainees
- Review an example of a grant-based academic-community partnership that provides benefits to both clinical agencies as well as students and faculty
- Consider how such a relationship might work for your institution and what first steps could help in creating such a partnership

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### The Challenge

- Clinical agencies face increasing demands in the current economic climate
- Decreased staffing and increased productivity expectations result in more and more agencies reducing the number of trainees they will accept for precepting, or closing their doors completely
- Given these challenges, NP training programs are constantly charged with finding creative ways to incentivize the clinical placement process for agencies and preceptors

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### The UC San Francisco-Elev8 Healthy Students & Families Grant

Awarded by Atlantic Philanthropies from 6/11-6/14 to work with Oakland Elev8 Middle School Project to:

improve the health and future lives of children  
 promote healthy families from underserved urban communities

**develop replicable health and education models for school-based care**

Elements of partnership:

UCSF Schools of Nursing and Dentistry  
 Faculty and trainee participation in SBHC activities through practice and service-learning opportunities

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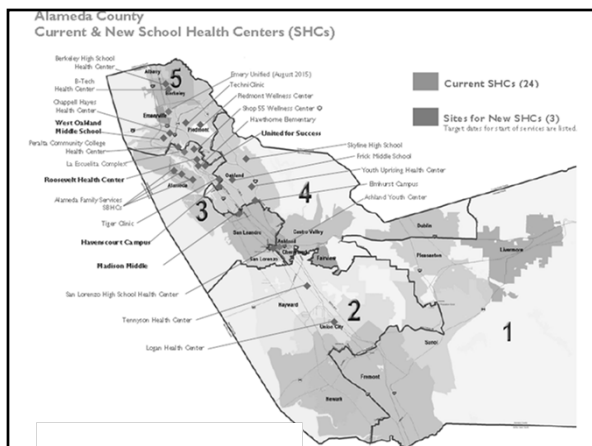
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**UCSF-Community Partnership:  
Meeting the Needs of Both Sides**

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<b>University</b>	<b>Community Clinic</b>
<ul style="list-style-type: none"> <li>• Clinical training programs (eg Nursing, Dentistry) need community sites                             <ul style="list-style-type: none"> <li>– Faculty practice</li> <li>– Student practicums</li> <li>– Student QI projects</li> </ul> </li> <li>• University mission to impact health in underserved communities</li> </ul>	<ul style="list-style-type: none"> <li>• Provision of Services</li> <li>• Marketing and Outreach</li> <li>• School Integration</li> <li>• Funding/Billing</li> </ul>

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**Provision of Services**

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Nurse practitioner faculty from UCSF staff 4 SBHCs at one half-day per week, year-round

Each faculty member precepts one NP student (PNP or FNP)

Additional clinical experiences are done throughout the year with groups of students, to support mass screenings

Sports PEs  
STI screening  
Oral health

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**Screening Campaign Examples**

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Oral health screenings & fluoride varnish application:

- 1300 visits - 3 sites - 4 days

“Get Yourself Tested” Campaign for teen STI and oral health screening - 1 site - 3 days

- 276 medical visits
- 169 dental visits

Sports Physicals for School Teams

- 45 visits – 1 site – 3 days

Mostly billable visits!!

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### Additional Learning Opportunities

- Students complete pre and post reflections for any experience at one of the school-based health centers
- Aim to collect data re: students' perceptions and experiences working with underserved youth in this unique setting
- Provides the student an opportunity to further process clinical experiences

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### Assistance with Sustainability

- Mass screening/interventions maximize billing by precepting multiple students
- Dissemination of evidence-based guidelines and best practices (including maximizing billing) through faculty-led trainings involving various sponsor organizations
- Joint grant applications, or use of student projects to assist in grant-writing

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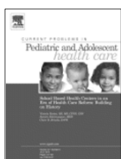
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### Marketing and Outreach



Faculty/trainees improve SBHC visibility through publication and presentation

- 2 posters presented
- 6 presentations at state and national conferences
- 2 publications

Collection/evaluation of data can be used to promote SBHCs and/or request funding

- Student QI project used as lit review for grant application

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### School Integration

Utilization of students in classroom-based health education curricula

NP student leadership projects:

- Oral health resources and education
- Integration of SBHC into school support services teams
- Development of bilingual low cost physical activity resource list by zip code
- MDI access program for undocumented pts with asthma
- BMI measurements of entire school
- Group obesity interventions

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### Can this work for you?

Consider the community agencies in your area that might benefit from collaboration with your program

- Don't underestimate your geographical reach – distance experiences may work for a variety of students, and may provide more community partners who are available and interested

Not everyone has grant funding

- Talk with the community organization to see what is feasible – ie providing reimbursement for faculty time (eg per diem salary)
- Plant the seeds so that when they are writing for grants, they include you

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### Part III - Bridging Transitions in Academic and Clinical Experiences for Acute Care Pediatric Nurse Practitioner Students in California



Mary E. Lynch, RN, MS, MPH, PPCNP-BC, FAAN  
Clinical Professor  
University of California, San Francisco  
Department of Family Health Care Nursing

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**Objectives**

- Discuss the need to prepare future Acute Care Pediatric Nurse Practitioners (ACPNPs) as transition agents for children with complex health conditions.
- Analyze the facilitators and barriers to the academic and clinical preparation of ACPNPs to function as transition agents for children with complex health conditions.
- Discuss the benefits of academic collaboration in supporting the next generation of Advanced Practice Nurses.

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**Population Challenge:  
Acutely, Chronically and Critically Ill Children**

- Growing number of children with complex health conditions and prolonged health care needs
- Increased survivability for infants and children with complex health conditions but challenging sustainability and quality of life
- Challenging transitions particularly within health care settings and at discharge
- Increased need for health care coordination to plan and support transitions

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**Supporting Health Care Transitions for  
Children With Complex Health Conditions**



<http://www.heraldsun.com.au/news/hours-in-the-royal-childrens-hospital-intensive-care-unit/story-e6frf7p-1225795201889>

<http://www.timesofmalta.com/articles/view/20110920/health-titles/Millions-of-children-at-risk-of-dying-from-preventable-diseases-386756>

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**Complex Pediatric Conditions & Care Transitions:  
Complex Transitions Grant**

- HRSA Funded Advanced Education in Nursing Grant (7/11-6/14):
  - Reduce barriers and increase access to transitional care by increasing the number, diversity and distribution of future ACPNPs prepared to meet health care transitions for children with complex health conditions
  - Enhance knowledge, skills and competencies of ACPNPs by providing education and training focusing on transitions in age/development, acuity, and/or environment for health care
  - Reduce health care disparities by targeting gaps in health care service delivery during transitions
  - Create linkages for education and training of ACPNPs throughout California by developing new clinical sites and preceptors supporting transitional care

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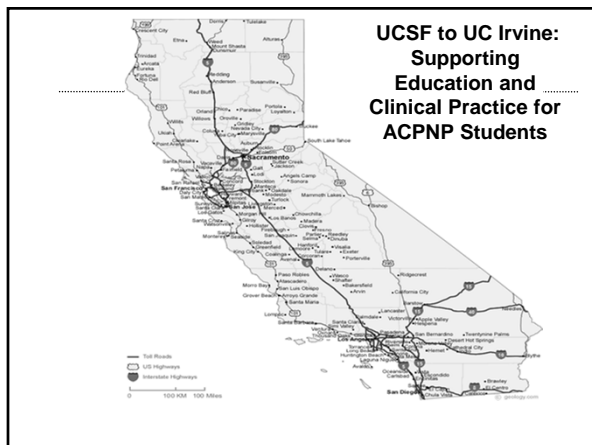
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**UCSF to UC Irvine:  
Supporting  
Education and  
Clinical Practice for  
ACPNP Students**

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**Facilitators and Barriers: Academic & Clinical  
Preparation of Transition Agents as ACPNPs**

- Facilitators: Belief that "we could do this work well"
  - Strong commitment by both schools of nursing to achieve goals
  - Growing applicant pool
  - Commitment to support technological linkages to facilitate access to course content
  - Changes in clinical practice supporting transitional care
- Barriers: Unexpected economic challenges
  - Challenges with technology: Faculty and students
  - Challenges in accessing clinical sites
  - Preceptor confusion with changing role

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### Sometimes Technology May Not Work!



[http://www.idea-champions.com/weblogs/archives/2012/08/35\\_awesome\\_quot.shtml](http://www.idea-champions.com/weblogs/archives/2012/08/35_awesome_quot.shtml)

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### What Have We Learned? What Has Changed?

- There is a crucial need to facilitate transitions for children with complex health conditions
- Changes in health care financing necessitate smooth transitions and will require future APNs to function as transition agents
- Gaps continue to exist during transitions in health care and increase the risk of complications, readmissions and increased costs
- New models of transitional care are developing but transitions from pediatric to adult care continue to be fraught with discontinuity

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### How Can We Change To Support the Education of Future Advanced Practice Nurses?



<http://www.alleywatch.com/wp-content/uploads/2013/06/collaboration.jpg>

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**Collaboration: Transitions in Working Together**



- Economic Necessity
- Greater Creativity
- Improves Student Access
- Limits Disparities in Educational Resources

<http://www.geography.org.uk/resources/communitycohesion/>

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**Part IV - Utilizing technology effectively:  
Complementary strategies to  
support clinical training for  
APRN learners**

Annette Carley NNP PNP  
Clinical Professor

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**Objectives**

1. Understand and be able to identify literature support for technology-based virtual experiences to support learner skill building and self-efficacy
2. Describe use of a virtual learning site to support an ACPNP curriculum

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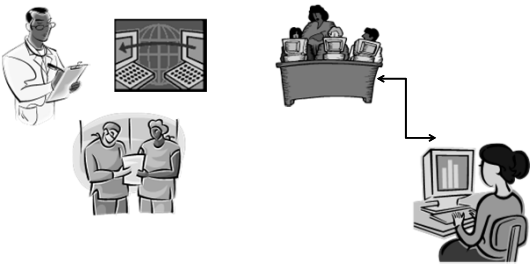
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**Learning management systems**

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**Data tracking and assessments**

The illustration shows a doctor on the left, a computer monitor in the top center, a classroom with students at desks in the top right, and a person sitting at a computer on the bottom right. An arrow points from the classroom towards the person at the computer.

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**Task trainers**



**Standardized patients**



**Care scenarios**



The block contains three photographs: one showing three people at a table, one showing a doctor and a patient, and one showing a medical team in a hospital room.

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**Literature support**

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Urgent care issues and new role expectations are sources of stress for novice providers (Cusson & Strange, 2008; Schwind et al, 2011)

Simulation-based learning (including virtual experiences) can support low-stakes acquisition of essential skills (Galloway, 2009; Sanford, 2010; Scherer et al, 2003) such as critical thinking and decision making (Guhde, 2010; Bolick et al, 2012; Hoffman, 2008), competence (Schwind et al, 2011) and confidence and self-efficacy (Plant et al, 2011; Schwind et al, 2011)

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## ...where we meet patients like Michaela

Page 151  
 10/18/14  
 Administration summary

10/18/14  
 10/18/14  
 10/18/14  
 10/18/14  
 10/18/14  
 10/18/14



### Transferring Patients with EKG

Dr. Michaela...  
 10/18/14  
 10/18/14  
 10/18/14

- Dr. Michaela... (bullet points)

Who transferred from the NICU yesterday

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## On-Call in the Virtual NICU/PICU

Student has responsibility for "coverage" of a cohort of virtual patients

Ongoing messages via texting and discussion postings into the Virtual NICU/PICU site within Moodle LMS™ to mimic the on-call experience

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## On-call in the Virtual NICU/PICU



Live



And how the page would occur in the Virtual NICU/PICU




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### On-Call in the Virtual NICU/PICU


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Live



And how it would look in Virtual NICU/PICU comparing today's CXR to a previous CXR





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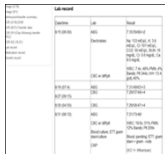
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### On call in the Virtual NICU/PICU

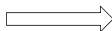
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Live



And how it would look in Virtual NICU/PICU to check lab work or a growth chart





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
### On-Call in the Virtual NICU/PICU

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live

And how the consultation or conversation would look in the Virtual NICU/PICU



**On call**  
 By Annette Carney - Wednesday, November 2, 2011, 08:38 PM  
 Erin: Is Julie "Adam's" nurse. He started having tonic movements of his left arm and leg about 10 minutes ago. Should I give him something? His maintenance phenobarbital won't be due until tomorrow morning (Dawn). He got two boluses the day yesterday, last in the afternoon around 2pm.  
 Also, his saturation monitor started reading in the 80% when this started. I increased his oxygen 10% and it brought it back up to 93%. He was in 43% and is now in 52%.

Re: On call by Erin [redacted] - Wednesday, November 2, 2011, 08:54 PM  
 Re: On call by Annette Carney - Wednesday, November 2, 2011, 09:07 PM  
 Re: On call by Erin [redacted] - Wednesday, November 2, 2011, 09:10 PM  
 Re: On call by Erin [redacted] - Wednesday, November 2, 2011, 09:23 PM  
 Re: On call by Annette Carney - Wednesday, November 2, 2011, 09:45 PM  
 Re: On call by Erin [redacted] - Wednesday, November 2, 2011, 09:48 PM

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**Can the On-Call experience support skills  
such as clinical reasoning...and most  
importantly support confidence in readiness  
for practice and self efficacy?**

preliminary data suggested trend toward enhanced self-  
efficacy; will be retested with larger sample this year

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**Thank You!**

*Angel Chen, RN, MSN, CPNP  
Victoria F. Keeton, RN, MS, CPNP, CNS  
Mary Lynch, RN, MS, MPH, PPCNP-BC, FAAN  
Annette Carley, RN, MS, NNP-BC, PPCNP-BC  
UCSF School of Nursing*

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