

Professional Development Model for CNS Practice

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The Foundation for a Successful CNS Practice

- Understanding the Spheres of Influence
- Choosing your Home
- CNS Core Competencies
- Continuing skill set development
- Productivity measurement



Defining CNS Competencies

- Spheres of Influence
 - Patient/family
 - Nursing/Nursing Practice
 - Organization/System
- Core Competencies
 - Use knowledge of differential diagnosis & treatment in comprehensive, holistic assessment of patients in context of disease, diagnosis and treatment
 - Design, implement & evaluate innovate programs of care to achieve, safe, quality and cost effectiveness
 - Serve as a leader/consultant/mentor/change agent in advancing nursing practice.

Defining CNS Competencies

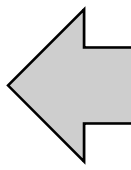
- Core Competencies
 - Advance nursing practice through innovative evidence-based interventions, best practice guidelines and modifications of standards that direct the care of nursing personnel & others
 - Lead multidisciplinary groups to facilitate collaboration with others to attain outcomes
 - Interpret the dimension of nursing care requiring resources at the system level & provide leadership to assure the system adequately supports the delivery of nursing care
 - Expand the practice of nursing through ongoing generation of knowledge and skills to maintain clinical competencies that lead to outcomes

Defining CNS Competencies

- Core Competencies
 - Expand the practice of nursing through ongoing generation of knowledge and skills to maintain clinical competencies that lead to outcomes
 - Demonstrate professional citizenship and fiscal responsibility in a health care system by focusing on health policy and resource management to ensure quality, cost- effective nursing care
- Essential Characteristics
 - Clinical expertise in a specialty, Leadership skills, Collaboration skills, Consultation skills, Professional attributes, Ethical conduct, Professional citizenship in specialty and in the profession of nursing

The Role Competencies Re-Introduced

- Direct care
- Consultation
- Systems Leadership
- Collaboration
- Coaching
- Research
- Ethical decision making, Moral agency & advocacy



Similar to the
Essential
Characteristics
from the NACNS
Scope of
Practice
document

The AACN Essentials of Masters Education

- Research
- Policy, organization & financing of healthcare
- Ethics
- Professional role development
- Theoretical foundation of nursing practice
- Human diversity & social issues
- Health promotion and disease prevention
- Advance health assessment
- Advance physiology and pathophysiology
- Advance pharmacology

Choosing Your Home

Program Based
Service Based
Unit Based

Program & Service Based CNS

- **Program Based:**
 - Focus is on a care intervention (i.e. Pain, Palliative care, Skin etc.)
 - Focus can be on a population of patients/chronic disease management
 - Direct care and systems spheres are more heavily weighted
- **Service Based**
 - Usually in line with a medical disease (i.e. Cardiovascular, Pulmonary. Etc.)
 - Direct care and systems spheres are more heavily weighted

Role of the Unit Based Clinical Nurse Specialist

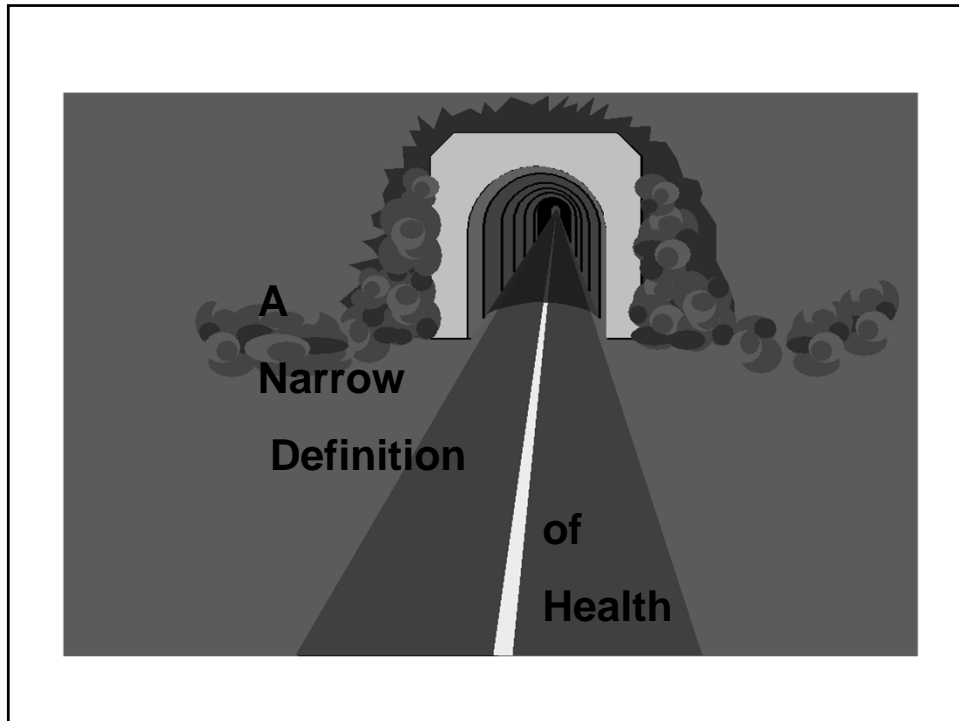


- Patient Centered Sphere of Influence
- Nursing Personnel Sphere of Influence
- Organizational/Network Sphere of Influence

Understanding How We Got Where We Are....Where We Need To GO

Reasons for Confusion & Disillusionment in Nursing

- A narrow definition of health
- How we define autonomy
- Nursing's unique contribution
- Absence of recognition for basic nursing care activities



Medicine's Health Definition

The absence of disease and measured in terms of morbidity and mortality

Nightingale's Health Definition

Health is not only to be well but to be able to use what ever power we have.

American Nurses Association's Health Definition

A dynamic state of being in which the development and behavioral potential of an individual is realized to the fullest extent possible.

Lyon's Health Definition

Health is the dynamic subjective quality of person-environment interaction which is expressed in a person's composite evaluation of the somatic sense of self and functional ability.

Wellness & Illness

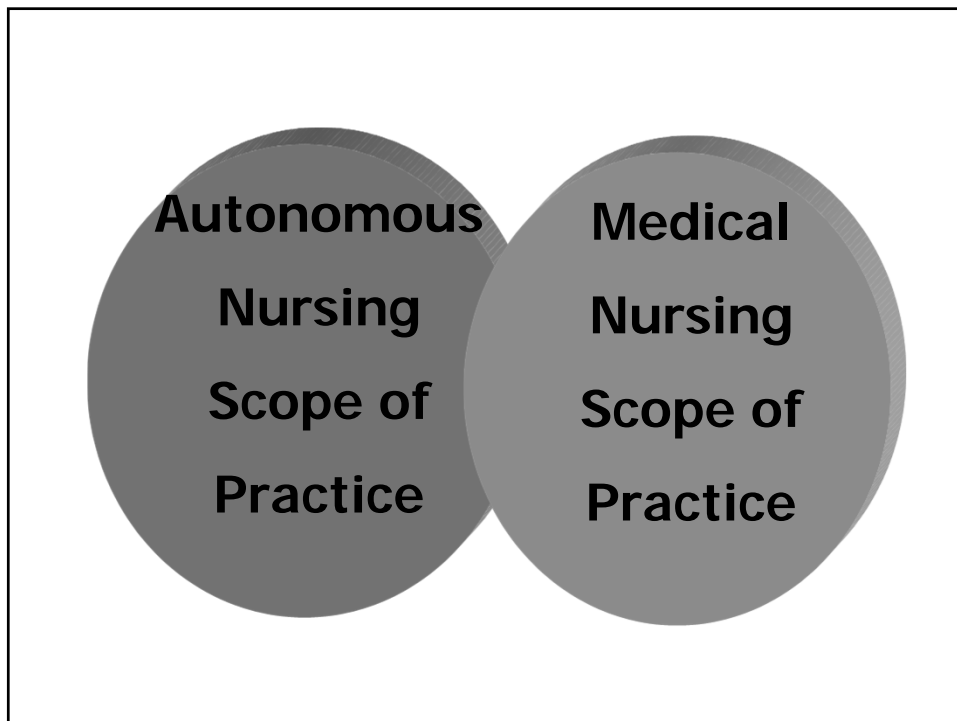
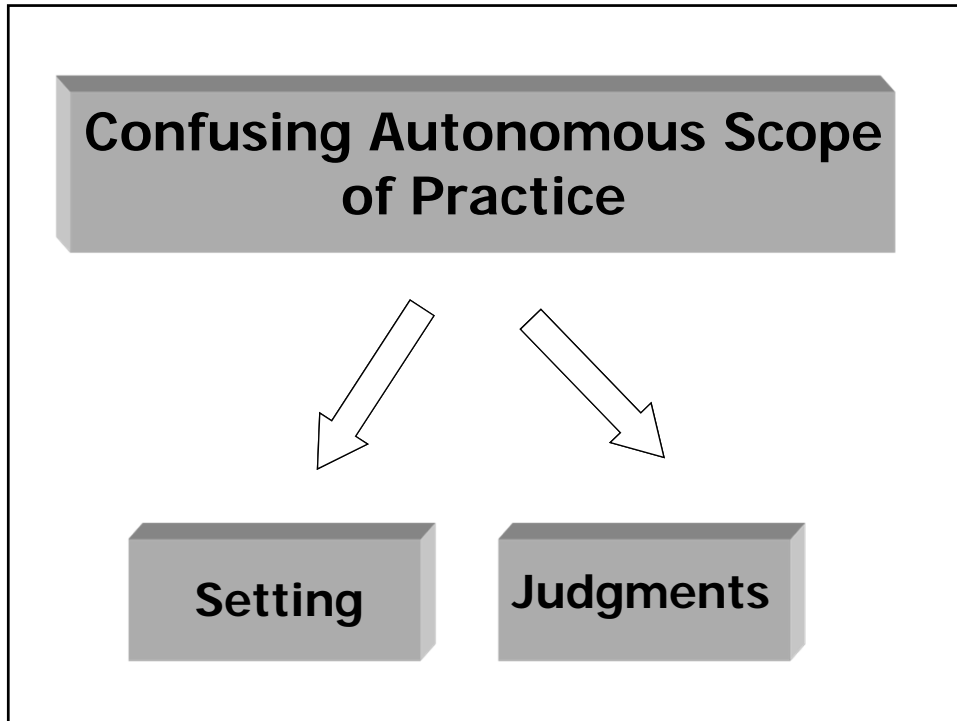
Wellness is comfortable somatic sensations accompanied by optimal functional ability whether we have a disease or not

Illness is uncomfortable somatic sensations or a decreased functional ability whether we have a disease or not



Autonomy

Means the self directed diagnosis & treatment or it is a self determined and controlled action that does not require authorization from another



Florence Nightingale ...



An expert in nursing's autonomous scope of practice

- Surveillance & monitoring of patient conditions for early detection of problems
- Preventing complications

"I use the word nursing for want of a better. It has been limited to signify little more than the administration of medicines and the application of poultices. It ought to signify the proper use of fresh air, light, warmth, cleanliness, quiet, and the proper selection and administration of diet—all of these at the least expense of vital power to the patient"

Notes on Nursing (1860/1969 p. 8)

Florence Nightingale or

The distinction between disease and illness

"... so deep-rooted and universal is the conviction that to give medicine is to be doing something or **RATHER EVERYTHING**; to give air, warmth, cleanliness, etc., is to do nothing."

(emphasis added) Notes on Nursing, (1860/1969, pg. 9)

? ? ? ?

**Can anyone name some
of those phenomena that
nurses are licensed to
treat???**

? ? ?
?

Diagnosis Manifestations of The Human Experience of Illness

- ❖ sense of powerlessness
- ❖ lowered self esteem
- ❖ fatigue
- ❖ feeling different
abnormal
- ❖ pain & discomfort
- ❖ negative/troublesome
emotions
- ❖ impaired social
relationships, role strain
- ❖ inadequate self care or
functional abilities

- ❖ nutrition
- ❖ rest
 - ❖ sleep
 - ❖ activity
- ❖ skin care
- ❖ ventilation
- ❖ circulation
- ❖ elimination
- ❖ inability to concentrate
- ❖ problem solve

Diagnosis Manifestations of the Human Experience of Wellness

- Sense of vigor
- Hardiness
- Positive emotional tone/mood states
- Optimal self care or functional ability

Self Directed Treatment Categories for Nursing

- | | |
|--|--|
| <ul style="list-style-type: none">❖ Hygiene-related activities❖ Nutrition-related activities❖ Elimination-related activities❖ Comfort-related activities❖ Movement-related activities❖ Rest/activity related activities❖ Learning and development-related activities❖ Safety-related activities | <ul style="list-style-type: none">❖ Sense of normalcy-related activities❖ Interaction-related activities❖ Coping-related activities❖ Physical environment-related activities❖ Alteration in ADL-related activities |
|--|--|

Recognition & Reprimand Structures within Acute Care Settings

- Recognition
 - Physiologic assessment
 - Completing medical treatments in a timely fashion
 - Assisting physicians with activities
- Reprimand
 - Medication administration
 - Questioning content of medical orders

Behavior that is recognized and reinforced continues

Behavior that is ignored or not reinforced does not continue

How do We Get There?



Developing a High
Functioning CNS Group

Why Might You Consider Redesign or Re-clarification of the Role?

- Lack of understanding of CNS role by institutional consumers
- Lack of visibility of CNSs in the institution
- Lack of cohesion among CNSs
- Need for CNS leadership in nursing practice changes
- Overlapping functions in CNS, nurse educator, and other nursing positions
- Confusion around measurement of CNS outcomes

What is Your Starting Point

- Are you decentralized in structure & culture?
- Do you have variability in reporting relationship
- How old is the job description
- Is there a comfort level with the status quo
- What types of CNSs do you have?
- How successful have you inserted into the shared governance structure?

A Charge to CNSs

- If needed, develop and clarify CNS role in keeping with vision and strategic plan of your organization
- Expected up to date deliverables;
 - Job description
 - Performance appraisal
 - Formalize interview process/interview tool
 - Structured CNS orientation program
 - Education to elevate CNS skill sets

Perform an Assessment

- Demographics (types of CNSs, preparation of CNSs)
- Reporting structures (manager/director/VP)
- Customer survey (example)
- Measurement of outcomes (clinical & financial)

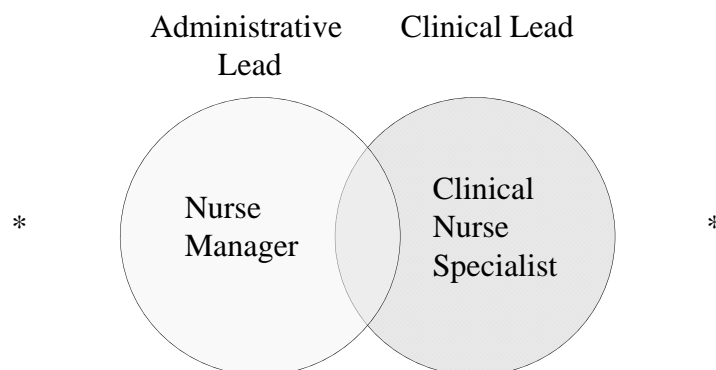
7. Nurses/Nursing Practice

1.	Not at all important	Somewhat unimportant	Important	Extremely important	Response Average
Mentor nurses to effectively incorporate evidence into practice.	1% (6)	5% (32)	41% (261)	53% (338)	3.46
Work collaboratively with nurses to develop practice environments that support shared decision-making.	1% (4)	4% (24)	41% (261)	55% (347)	3.50
Be available for questions about patient care issues, policies, etc.	0% (3)	3% (19)	35% (223)	61% (390)	3.57
Develop and implement competencies and educational programs	2% (13)	13% (85)	45% (286)	39% (250)	3.22
Mentor nurses to acquire new skills and develop their careers.	1% (8)	10% (62)	43% (270)	46% (290)	3.34
Assist the staff in developing critical thinking and clinical judgement.	1% (7)	8% (50)	42% (266)	49% (308)	3.39

Develop Guiding Principles

- CNS should serve as a coordinator of clinical projects and initiatives on nursing units and within the institution in collaboration with others
- Partnership should exist between CNS and Nurse Manager at unit level
 - Nurse Manager as administrative lead
 - CNS as clinical lead

A Partnership



To Make the Critical Difference =
Equal Accountability

Work Products

- CNS Job Description (based on spheres of influence & role competencies)
- CNS Interview Process and Tools (process for interviewing, structured interview questions and a graded tool)
- CNS Orientation Program
- CNS Performance Evaluation
- CNS Education Plan to enhance CNS skill set

CNS Orientation

- Competency-based orientation
- Incorporates adult learning principles
- CNS Skills Inventory
- Customized to individual needs of orientee
- CNS preceptor
- Areas of focus and timetable developed with director, nurse manager, CNS preceptor, and orientee

CNS Orientation

- Target duration 3 to 6 months
- Evaluation
 - Orientee evaluates CNS and Unit/Program orientation
 - Joint evaluation of orientee's progress
 - Set goals for rest of first year that become focus for annual performance evaluation

Performance Evaluation

- Organizational performance expectations that apply to all employees
- Job Specific Performance Expectations in the 3 spheres
 - Not met
 - Approaching
 - Solid Performance
 - Exceptional

Productivity Model

- Structure
- Process
- Outcome

Byers JF, Brunell ML, 1998, 9(2):296-305

Productivity Model

- Structure
 - Job description
 - Characteristics of the work setting (area/pt load, resources)
 - Organizational placement
 - Time spent in CNS role functions

CNS ACTIVITY LOG
TIME CODES

```

clinical Practices:
P1 Patient care planning with staff
P2 Patient rounds with nursing and/or multidisciplinary group
P3 Patient care conference
P4 Direct patient care
P5 Counseling/teaching patients/families
P6 Care management activities
P7 Competency testing
P8 Competency development
P9 SOC/IOC/PCP development
P10 Quality assurance activities
P11 NIS activities
P12 QIO activities
P13 Other (describe)

Education:
E1 Unit based inservice
E2 NDR class presentation
E3 Program planning/development
E4 Unit based orientation activities
E5 University/preceptor activities
E6 Out of hospital professional presentation
E7 Educational needs assessment
E8 Presentation preparation
E9 Other (describe)

consultation:
C1 Consultation to assigned areas/units
C2 Consultation to other areas/units
C3 Nursing dept committee: UIC
C4 Nursing dept committee: Divisional
C5 Nursing dept committee: Practice Area
C6 Nursing dept committee: Departmental
C7 Nursing dept committee: APN
C8 Multidisciplinary committee: Collaborative Practice, QI
C9 consultation to NOR
C10 Other (describe)
(For meetings, code A4: Leader, A5: Participant/member or A6: Guest)

Research:
R1 Research utilization activities
R2 Research project development
R3 Literature search/review
R4 Publish/present research data
R5 Data collection
R6 Data analysis
R7 other (describe)

Leadership/Professional Development:
D1 Certification activities
D2 Self evaluation/role documentation
D3 Continuing Education
D4 Professional organization activities
D5 Other (describe)

Other:
A1 Meeting preparation
A2 Clerical activities (typing, copying, sorting, stapler)
A3 Telephone consultation
A4 Leader
A5 Participant/member
A6 Other
    
```

CNS ACTIVITY LOG
TIME CODES

Yesterday's Medical Center CNS Productivity Log							
Name: _____		Specialty: _____			Week: _____		
	Mon	Tues	Wed	Thu	Fri	Weekend	Total
Clinical--# of Patients							
Direct Care Interventions							
Care Coordination							
Other Interventions							
Education							
Audience #/Type							
Content							
Audience #/Type							
Content							
Interviews							
#/Type							
Content							
# = Number of different patients, or # in educational audience. Projects in Progress: _____ Major Accomplishments for the Week: _____ Goals by Next Week: _____ Goals By End of the Month: _____							

Figure 1. Yesterday's Medical Center CNS productivity log.

Prevost S, CNS 2002;16(3):119-124

Structural Component

The stronger the structural elements the greater probability that an APN can be effective in providing care and achieving outcomes

Productivity Model

- Process
 - CNS ability to perform role (process) within 3 spheres of influence
 - Demonstration of the CNS essential characteristics and CNS competencies
 - CNS activity lead to a change in staff nurse behavior
 - Interpersonal factors: professionalism, communication skills, Job satisfaction
 - Evaluation through self assessment, customer assessment and administrative review

Clinical Nurse Specialist Performance Assessment

Clinical Nurse Specialist Performance Assessment

You have been asked for input in the performance appraisal of Clinical Nurse Specialist: _____

For each of the following statements indicate the proficiency of the Clinical Nurse Specialist. Also indicate if that area of responsibility and performance is important to you.	Overall Proficiency		Importance to You						
	1. Strongly Disagree	2. Disagree	3. Agree	4. Strongly Agree	1. Not at all Important	2. Somewhat Unimportant	3. Important	4. Extremely Important	5. NA – no opinion
This person.....									
1. Demonstrates knowledge and clinical expertise.									
2. Provides leadership in identifying, developing and implementing changes in nursing practice.									
3. Available and approachable for clinical issues and problems.									
4. Collaborates with other disciplines.									
5. Improves clinical outcomes.									
6. Translates research findings into nursing practice.									
7. Implements practices to improve patient and staff safety.									
8. Provides formal and informal education to staff on a regular basis.									
9. Enhances my knowledge and clinical expertise.									
10. Encourages and mentors me to develop professionally.									
11. Advances nursing practice through participation in professional organizations, publications and presentations.									

September 14, 2006

Clinical Nurse Specialist Performance Assessment		
12. Evaluates the effect of nursing practice on fiscal and staff resources.		
13. Prioritizes work based on patient/family/staff/organization needs.		
This person.....	Overall Proficiency 1. Strongly Disagree 2. Disagree 3. Agree 4. Strongly Agree 5. NA – no opinion	Importance to You 1. Not at all Important 2. Somewhat Unimportant 3. Important 4. Extremely Important 5. NA – no opinion
14. Demonstrates sensitivity toward others in communication.		
15. Establishes effective relationships in the workgroup.		
16. Demonstrates follow-through on projects.		
17. Maintains flexible work patterns to meet unit/departmental needs.		
18. Collaborates effectively with nurse manager to meet unit/program goals.		
19. Works effectively to improve nurse sensitive outcome indicators for unit (i.e. falls, pain, pressure ulcers).		
What things did I do that were helpful to you, staff or patients?		
What would you recommend that I change or work to improve?		
September 14, 2006		

Patient/Client Sphere of Influence

- **Expected Outcomes**
 - designing cost effective programs of care
 - prevention, alleviation or reduction of symptoms or functional problems
 - unintended consequences and errors are prevented
 - seamless transition across continuum of care
 - published reports of new clinical phenomena or interventions
- **Competencies**
 - uses appropriate research based tools, techniques to identify, describe and intervene
 - develops & test innovative assessments & interventions
 - synthesizes data from multiple sources
 - selects, develops & applies appropriate evaluation measures of nursing therapeutics

Nurse/Nursing Practice Sphere of Influence

- | | |
|--|---|
| <ul style="list-style-type: none"> • Expected Outcomes <ul style="list-style-type: none"> – knowledge & skill needs are profiled – articulate research base for innovations – nurses are able to articulate nursings' unique contribution – job satisfaction – nursing personnel are engaged in learning – reduction in cost of care through purchase & use of resources | <ul style="list-style-type: none"> • Competencies <ul style="list-style-type: none"> – designs & uses tools to identify gaps in knowledge – identify need for change or modification in equipment or products & proceeds with the change process – anchors performance efforts on data-based information – assists staff to critique &/or apply research – mentors nursing staff in career development |
|--|---|

Organizational/Network Sphere of Influence

- | | |
|--|---|
| <ul style="list-style-type: none"> • Expected Outcomes <ul style="list-style-type: none"> – patient care processes reflect continuous improvement that benefits the system – innovative models of practice developed/best practice – benchmarking against like institutions – organizational decision makers are informed of practice issues with impact on outcome & cost – system-wide change initiatives | <ul style="list-style-type: none"> • Competencies <ul style="list-style-type: none"> – assess effectiveness of teams & lead nursing/multidisciplinary groups in innovative patient care programs – creates, advises & influences system-wide policies – reduces barriers & support facilitators to change across the continuum of care |
|--|---|

Productivity Model

- Outcome
 - Results of CNS practice within the 3 spheres of influence
 - Changes in practice measured through clinical outcomes;
 - Safety
 - Quality improvement
 - Decrease complication rates
 - Satisfaction
 - Retention
 - Financial benefit
 - Quality of Life
 - Functional status
 - Resources: LOS, readmission, ER visits

HENRY FORD HOSPITAL

**Clinical Nurse Specialist
Goals and Evaluation Tool**

NAME: _____ S.S.#: _____

REPORT/EVALUATION: _____ GOALS: _____

DATE/QUARTER: _____ (Year) YEARLY: _____

I. Structure Evaluation

	Percent of Practice	x	Average Score	=	
Practice	_____	x	_____	=	_____
Education	_____	x	_____	=	_____
Consultation	_____	x	_____	=	_____
Research	_____	x	_____	=	_____
Professional Development	_____	x	_____	=	_____
TOTAL SCORE:					_____

Key:

- 5 = Outstanding
- 4 = Excellent
- 3 = Fully Satisfactory
- 2 = Minimally Satisfactory
- 1 = Not Satisfactory

2

II. Practice

Competency Statement: The CNS will function as a clinical resource by assisting the staff to implement the nursing process for a patient or group of patients:

a. Develops/completes/maintains unit competencies.

Process:

Outcome:

b. Develops standards/UOCs/policies and procedures for unit population.

Process:

Outcome:

II. Practice

c. Demonstrates clinical expertise to plan and follow up on care for the complex patient.

Process:

Outcome:

d. Provides support in the implementation, ongoing utilization, and evaluation of the care management patient care system.

Process

Outcome:

e. Other practice activities.

Process:

Outcome

Average Score: Practice = _____

Performance Evaluation

- CNS Performance Evaluation Rating Descriptions
 - Based on novice to expert progression in CNS role
 - Examples of behaviors in each of four levels of performance for 3 spheres of influence
 - Focus of behaviors will fluctuate based on annual goals developed in partnership with nurse manager and director

Performance Evaluation: Direct Care

Not Met	Approaching	Solid Performance	Exemplary
Programs/policies/procedures are not reviewed or developed.	Requires assistance in reviewing/developing programs/policies/procedures for specific patient population using evidence-based literature.	Programs/policies/procedures are reviewed and developed for specific patient population using evidence-based literature.	Develops innovative institutional programs/policies/procedures using evidence-based literature.
Does not identify a plan to improve quality indicators or fails to implement an already developed plan to improve quality indicators.	Action plan is in progress to begin improving quality indicators.	Ensure quality indicators meet the standard goal for the unit (i.e.: Core Measures, Keystone, NQF, Vermont Oxford, SCIP)	Exceed target or lead effort across units to improve quality indicators.

Performance Evaluation: Nurses/Nursing Practice

Not Met	Approaching	Solid Performance	Exemplary
Does not show evidence of collaborating to resolve barriers to patient care, communication challenges and resource issues	Beginning to show evidence of collaborating to resolve barriers to patient care, communication challenges and resource issues	Demonstrates the ability to collaborate effectively to resolve barriers to patient care, communication challenges and resource issues (AEB: customer survey, antidotal examples)	Demonstrates the ability to collaborate effectively to resolve barriers to patient care, communication challenges and resource issues at the institutional level

Performance Evaluation: Organization/System

Not Met	Approaching	Solid Performance	Exemplary
Does not demonstrate evidence of participation in a system organizational clinical program/projects that are congruent with the strategic plan, standards or regulatory requirements.	Able to articulate what system/organizational clinical program/projects they need to participate on based on their background and the organizational needs.	Participates in a system/organizational clinical program/projects that are congruent with the strategic plan, standards or regulatory requirements. (Example: 75% attendance at meetings, evidence of participative role).	Initiates and leads a system/organizational clinical program/projects that are congruent with the strategic plan, standards or regulatory requirements.
No evidence of clinical & financial outcomes related to resource utilization, satisfaction, cost avoidance or revenue generation with a program/project that they participated in.	Actively seeks assistance with demonstration of clinical & financial outcomes related to resource utilization, satisfaction or revenue generation or cost avoidance.	Demonstrates clinical & financial outcomes related to resource utilization, satisfaction, cost avoidance or revenue generation with a program/project.	Completed projects demonstrate clinical and financial outcomes are within projected goals.

Outcome Measures

Clinical: Indicator of improvement or lack of improvement regarding a health problem

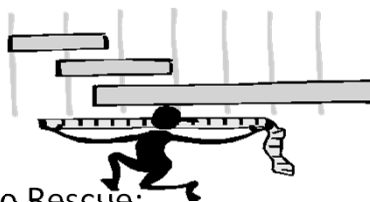
Functional: Indicators of well-being & ability to participate in ADL and resume desired role

Financial: Indicator of economic profitability or cost avoidance

Criteria for Selection of Evaluation Measurement

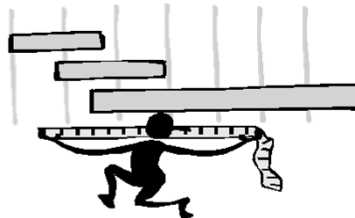
- **Significance:** Relevant to the customer, priority, affect important aspects of Healthcare, helps in identifying ways to improve care
- **Range:** adequately assesses scope of service, discriminates variables in performance (sensitive), measures factors under some control of the APN
- **Quality:** document reliability and validity, accounts for confounding variables, severity adjusted
- **Feasibility:** cost-effective, able to measure, able to get the denominator

Clinical Measures



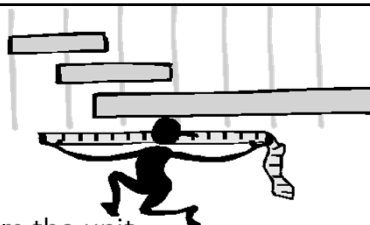
- Unexpected Death/Failure to Rescue:
- Mortality/Morbidity
- Readmission to the ICU or Hospital
- Central line infection rate: CLA-BSI
- Ventilator associated pneumonia rate (VAP):
- Urinary Tract Infection rate: CA-UTI
- Patient & family satisfaction:
- Fall Injury rate
- Hospital acquired skin injury
- Pain management

Functional Measures



- **Staff professional growth:** % BSN's, % staff in school, % number of CN II & CN III and evidence of professional based activities
- **Staff participation in change:** Staff lead projects/practice guidelines and leadership roles in shared governance structure
- **Functional Health Status:** Short form 12 or 36 used with a designated patient population
- **Satisfaction/responsiveness of the professionals**

Financial Measures



- **Nurse turnover:** Loss of an FTE from the unit
- **Nurse wastage rate:** Loss of an FTE within the 1st year of employment on the unit
- **Cost avoidance/orientation:** Estimated amount of money saved in orientation cost based on turnover rates when compared to national figures
- **ICU Length of stay:** LOS compared with a MICU in a similar type facility
- Variance in reimbursement vs. cost of care delivery
- Denied reimbursement
- Cost avoidance programs: reducing infection, workmen's compensation injuries, lawsuits

Nurse Sensitive Care Indicators

- Death among surgical patients with treatable serious complication
- Pressure ulcer prevalence
- Falls prevalence
- Falls with injury
- Restraint prevalence (vest & limb only)
- UTI rate/ICU
- Blood stream infections (BSI) from invasive catheters (ICU and high risk nursery)

Nursing Quality Forum 2004

Nurse Sensitive Care Indicators

- Ventilator-associated pneumonia (VAP and high risk nursery)
- Smoking cessation for AMI
- Smoking cessation counseling for heart failure and pneumonia
- Skill mix
- Nursing care hours per day
- Voluntary turnover

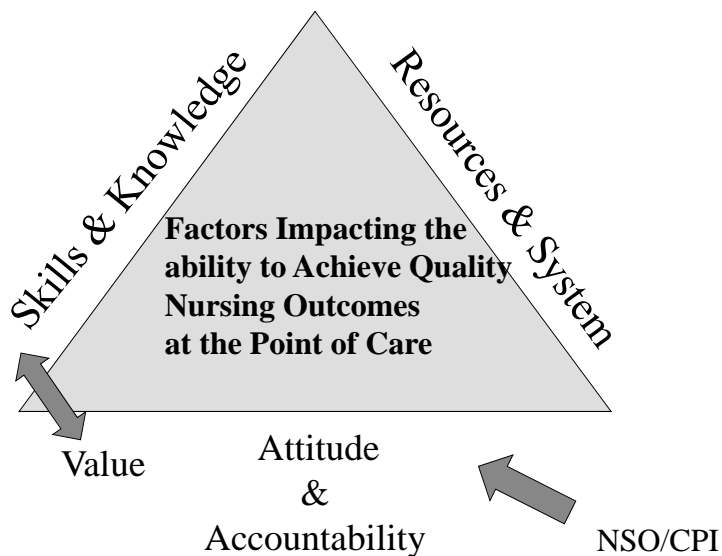
Nursing Quality Forum 2004

Nurse Sensitive Care Indicators

- Practice Environment Scale-Nursing Index (5 sub-scales)
 - Nursing participation in hospital affairs
 - Nursing foundation for quality of care
 - Nursing manager ability, leadership and support of nurses
 - Staffing and resource adequacy
 - Collegial nurse-physician relations

Nursing Quality Forum 2004

Components of Successful Long Lasting Change



Support Tools to Help with Data & Benchmarking

- American College of Cardiology National Cardiovascular Data Registry (ACC-NCDR)
- National Trauma Registry of the American College of Surgeons (TRACS)
- APACHE III
- Project Impact (SCCM)
- American Thoracic Surgeons Adult Cardiac National Data Base
- National Healthcare Safety Network (NHSN)
- University Health Consortium (UHC)

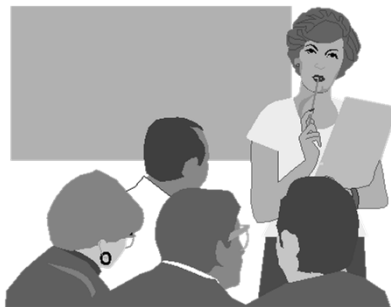
Example Measurements

- Heart Failure Program:
 - Hosp rates due to CV dx, HF readmission rates, mortality, Beta blocker utilization, angiotension converting enzyme inhibitor use & dosing, quality of life measures, cost of care, time to readmission, #of ER visits, anxiety/depression scale, smoking cessation
- Ventilator Management Program
 - APACHE/actual vs. predicted vent days, Vent day outlier rate, Re-intubation rate within 24 hrs, Documented aspiration rate, VAP rates, reduction in ICU LOS with sedation protocols

Example Measurements

- Outcomes in the Elderly:
 - Measurement of functional status
 - Measuring ADL
 - Quality of life
- CV Surgery Program: Measure Impact of Fast Track
 - Early extubation
 - ICU LOS
 - Pain & comfort
 - % respiratory complications

Professional Development of the Staff: Keeping the Experienced Practitioner at the Bedside



- Quality Improvement Projects
 - protocol development
 - healing environment project
 - skin projects
 - product evaluations
 - mechanical ventilation pathway
 - Pain management

Professional Development of the Staff: Keeping the Experienced Practitioner at the Bedside

- Nursing Research
 - neuromuscular blockade study
 - interventional music study
 - cooling blanket study
 - powerlessness study
- Publications
 - clinical exemplars
 - standards of care/care guidelines
 - abstracts presentations
 - newspaper articles

Professional Development of the Staff: Keeping the Experienced Practitioner at the Bedside

- Professional Presentations
 - local professional monthly meetings
 - Fall & spring seminar
 - poster presentation at national conferences
 - submit abstracts to national meetings
- National Awards
 - AACN's award for excellence in clinical practice
 - Nursing Spectrum awards
 - Local awards

Cost-Benefit Analysis:
The Link to Balancing Clinical
and Financial Outcomes

The Idea.....The Proposal

- Identify the clinical advantage
- Achieve a financial breakeven or a benefit
- Measure outcomes...Prove yourself
- Implementation plan

The Clinical Advantage

- Science or community standard
- Motivation: benefit to the clinician: patient, professional self, unit, organization
- Clinical Champion: start to finish
- Patience and perseverance



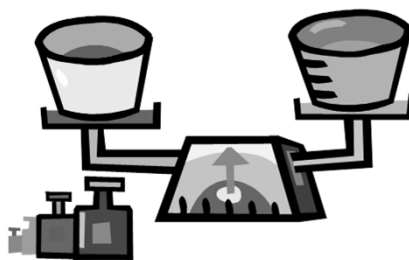
Achieving a Financial Breakeven or Benefit

- Determine important clinical components to measure
- Can you put a cost to these measures?
- Think creatively...out of the box..there is no black and white. There is no set formulas for breakeven analysis
- Find a financial champion to help with analysis and credibility!!!!
- Breakeven point for capital projects 2 years



Measuring Outcomes

- Measure the current practice/situation
 - 6–12 months historical perspective
 - Pilot study
- Measure the projected outcomes (clinical creates financial)
 - Utilize the hard savings
 - List the soft savings as a bonus
- Pre and Post measures need to be as close as possible



Hard & Soft Savings

- | | |
|--|--|
| <ul style="list-style-type: none"> • Hard Savings <ul style="list-style-type: none"> – Supplies – LOS – Readmissions – Complication rates | <ul style="list-style-type: none"> • Soft Savings <ul style="list-style-type: none"> – Nursing time (labor) <ul style="list-style-type: none"> • Documentation • Care delivery personnel change • Administration of medications • Administrative time – Physician time <ul style="list-style-type: none"> • Clinical time • Administrative time |
|--|--|

Implementation Plan



- What are you asking for?
 - Change in policy
 - More money/what kind
 - More staff
 - Resource support
- Clinical Champion
- Detail roadmap
 - Outline the plan/timeline
 - Follow-up/clinical & financial
 - Report back the results to the clinical and financial people

Financial Analysis of Cost Avoidance Related to Retention Activities

- % difference in turnover & wastage versus the national average
- cost-out orientation dollars
- cost-out recruitment dollars
- convert percent difference to number of persons and multiply amount of orientation & recruitment dollars spent per one employee

5 Year Orientation Cost Avoidance: \$1,920,000.00

	1997	1998	1999	2000	2001
National Turnover Rate (Hospital Nursing) ^{1,2}	12%	12%	18.3%	18.3%	18.3%
MCC turnover rate	7%	7%	8%	9%	6%
% difference converted to RN positions that would of required orientation	2 RN's	2 RN's	8 RN's	8 RN's	10 RN's
Estimated cost of ICU nurse orientation ³	\$64,000	\$64,000	\$64,000	\$64,000	\$64,000
Yearly orientation cost savings secondary to retention	\$128,000	\$128,000	\$512,000	\$512,000	\$640,000

QUALITY IMPROVEMENT PROJECT

Reducing Central Line Associated Blood
Stream Infections

Nosocomial Infections: Central Lines

- Pre-central line infection rate:
 - 6.8 per 1000 catheter days
- Pre-implementation practice
 - Gown, glove, mask and small drape
 - Routine change of central lines every 4 days
 - Dressing change every 4 days/prn when soiled with gauze dressing

Nosocomial Infections: Central Lines Implementation of CDC Guidelines (1996)

- No routine changes of central lines
- If infection suspected, perform guidewire exchange and culture the tip
- If tip positive, remove line and perform a new stick
- No routine dressing changes/use of transparent dressing to view the site
- Three strikes and the most experience practitioner places the line (HFH guideline)

Nosocomial Infections: Central Lines

	Device Utilization	Bloodstream Infection	Rank Comparison
Benchmark MICU	> 50	5.9	50-75%
(Pre change) HFH MCC	> 90	6.8	50-75%
(Post change 2000) HFH MCC	> 90	2.90*	10-25%
(Post change 2002) HFH MCC	> 90	1.33	10-25%

Cost avoidance associated with low Central Line rate: \$1,240,000.

* Significant at $p < 0.0001$

Reduction of Microbial Colonization in the Oropharynx & Dental Plaque Reduces VAP

Methodology:

- MICU Mechanically ventilated patients between 01/2003 to 12/2003 provided a comprehensive oral care assessment & intervention
- Compared against 01/2002 to 12/2002 who received standard care
- Intervention: Oral care kit including covered yankauer, deep oral cleansing catheters (q6hrs), suction toothbrush (q12hrs) and oral suction swabs and mouth moisturizer (q4 hrs)
- No other interventions introduced during study period.

Garcia R et al AJCC, 2009;18:523-534

Reduction of Microbial Colonization in the Oropharynx & Dental Plaque Reduces VAP

Results:

- Reduction in VAP from 12.0 to 8.0 (p=.060) with 80% compliance, vent bundle already being preformed,
- 1538 patients randomized to control or study group,
- Additional outcomes; ↓ vent days (p=.05), ↓ ICU LOS (p=.05) ↑ time to VAP (p= <.001) & reduction in mortality (p=.05)

(Garcia R et al AJCC, 2009;18:523-534)

Cost Avoidance

- Attributable cost of a healthcare-acquired pneumonia is estimated to be \$40,000 (Rello, *Chest*, 2002).
- Based on the avoidance of approximately 21 VAP cases since the intervention

$[21 \times \$40,000 \text{ (infection cost)}] - [\$117.025 \text{ (product cost)}] = \$722,975.$

UNIT PROCESS IMPROVEMENT:

Skin Care

Assessment of the problem

- Incidence rate was 23%
- Incidence air low specialty bed utilization > 320 bed days per year
- 90% of our population at high risk for breakdown (Braden < 12)
- All patients were on a standard hospital mattress
- Current fecal & urinary incontinence products ineffective

UNIT PROCESS IMPROVEMENT:

Skin Care

The Process Improvement

- ✓ Use of static air overlay to reduce pressure upon admission to the unit
- ✓ Mattress replacement project to provide cost savings without affecting quality
- ✓ Criteria for use of low air loss therapy introduced
- ✓ Education on prevention & treatment
- ✓ Education tools placed at the bedside
- ✓ Product evaluation & purchase of incontinence barrier products
- ✓ Standardized risk assessment

UNIT PROCESS IMPROVEMENT: Skin Care

Outcomes Achieved

- Decrease in incidence rate < 5%
- Reduction in low air loss therapy bed days (46)
- Sense of pride & valuing of skin care
- 7 member skin committee for education & quality outcome measurement
- Initial cost savings

UNIT PROCESS IMPROVEMENT: SKIN CARE C O S T A N A S

Treatment Costs*	Prevention Costs	Cost Savings**
\$78,000.00 Based on 5 ulcers per month/ per year	\$11,666.00 Static air mattress & Moisture barriers/ per year	\$66,334.00/y 8 bed MICU

****Figures based on variable cost for treatment per ulcer of \$1,300.00**

****Additional \$6,500.00 cost savings with reduction in low air loss bed days**

Cost Analysis

Sample Cost Savings Calculation

Declogged and saved 10 central lines at a minimum savings of \$224.28 each	\$2,243
Inserted 79 PICC lines at \$2,351 each \$2,626 surgical insertion cost-\$275 PICC insertion cost = \$2351 savings/line	\$185,729
Monitored and reduced or discontinued specialty beds, negotiated free beds for indigent patients	\$7,958
Prevented 10 admissions and expedited 52 discharges at a minimum savings of \$450/case	\$27,900
Discontinued unnecessary oxygen on 10 patients at \$50/day/patient	\$500
Total	\$224,330

Prevost S, CNS 2002;16(3):119-124

Organizational Support

Administrative Environment

- Adequate orientation/matching specialty with area
- Consistent shared expectations/contracting
- Accountable
- Dilutional factor considered
- Secretarial/Computer support
- Data support management
- Navigational support/system resource

Quarterly Report of APN Activity: Showing the Value

New Century Advanced Practice Nurse Group* Third Quarter Report--Executive Summary

During the past 3 months, the 10 APNs at New Century Hospital:

- Provided 4,353 interventions for 1,597 inpatients and 111 outpatients
- Facilitated 44 support group meetings
- Expedited 52 hospital discharges
- Presented 41 inservice programs for 292 attendees
- Presented 12 continuing education programs, attended by 76 staff, awarded 637.5 contact hours
- Inserted 79 PICC lines
- Contributed to at least \$224,330 in cost savings

Additional details describing these interventions and outcomes are provided in the following pages of this quarterly report.

**This data reflects the actual work of an APN group; however, the name of the institution has been changed.*

Prevost S, CNS 2002;16(3):119-124

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