

## Staffing and Scheduling Processes

### Source of Evidence 8

**Demonstrate and describe how nurses use trended data to formulate the staffing plan and acquire necessary resources to assure consistent application of the Care Delivery Model(s).**

#### Overview

Effective budgeting and resource allocation are essential to safe, high quality, efficient nursing care. Due to the complex nature of VUMC's practice environment and the high acuity of our patients, we have and are committed to a budget process that is collaborative and flexible to meet the changing needs of our patients. All levels of nursing are engaged in the budget planning process to plan for adequate resources to provide for safe, quality nursing care for our patients.

The decentralized budgeting process draws on nursing leadership and staff to assist in the development of the fiscal year budgets, including, but not limited to salary (staffing levels), non-salary operating and capital items for the unique clinical areas. We are committed to providing a safe environment for the practice of professional nursing. Processes are in place that support continuous evaluation of our staffing plans and support changes as needed to meet the goals of our care delivery models. *(Refer to OO 11 for the Care Delivery Systems in place across the Medical Center)*

#### Formulating Staffing Plans

Anne Underhill RN, CPA is in an organizational operational finance role as the Assistant Director of Finance. She works with the team from each nursing area during the budget preparation process and helps develop budgets that support professional standards, patient and staff safety, quality outcomes and professional activities such as shared governance.

Initial staffing plans are developed annually at the point of care level as a collaborative effort by the unit/clinic team (manager, assistant manager, charge nurses, educator, and direct-care nurses – (through unit/clinic board meetings) and in conjunction with the Administrative Nursing Director and the Financial Officer assigned to the unit/area. Medical Directors are also consulted in the formulation process giving feedback regarding potential new faculty and/or

patient population changes that could alter resource allocation. This is a formal process and is supported electronically.

Commitment to safe, effective patient care is the primary goal. Each nursing team utilizes various pieces of data to develop the staffing plan to support the appropriate implementation of the Care Delivery Model based on their patient populations. Information includes:

**Table EP 8 – 1: Data Required to Implement Care Delivery Model**

Patient Population- including, but not limited to:	<ul style="list-style-type: none"> <li>• Types of patients</li> <li>• Lengths of stay (workflow, high turnover)</li> <li>• Units with more than one level of patient care (such as ICUs with Step down level patients)</li> <li>• Post procedure/surgery monitoring</li> <li>• Medication/blood administration heavy</li> <li>• Unit based procedures</li> <li>• Case mix index/acuity</li> </ul>
Skill Mix as appropriate for unit	<ul style="list-style-type: none"> <li>• Registered Nurses</li> <li>• Licensed Practical Nurses</li> <li>• Unlicensed assistive personnel (care partners, medical assistants)</li> <li>• Medical Receptionists</li> </ul>
Average Daily Census (ADC)	<ul style="list-style-type: none"> <li>• Trends from previous years</li> <li>• Past year’s history</li> <li>• Projected Census or potential changes in census</li> </ul>
Anticipated or actual changes	<ul style="list-style-type: none"> <li>• New programs</li> <li>• Additional physicians</li> </ul>
Professional Organization Benchmarking – including, but not limited to:	<ul style="list-style-type: none"> <li>• American Association of Critical Care Nurses</li> <li>• ONS</li> <li>• AWHONN</li> <li>• ACOG/AAP</li> <li>• ACCN</li> <li>• ASPAN</li> <li>• AORN</li> </ul>
Hours Per Patient Day (HPPD) Benchmarking	<ul style="list-style-type: none"> <li>• Solucient</li> <li>• CHCA</li> <li>• NDNQI and other benchmarks are also considered</li> </ul>

Care Delivery Models Needs	<ul style="list-style-type: none"> <li>• Nursing plans for the needs of the care delivery models based on the nursing and UAP staff specific to the unit that are needed.</li> </ul> <p><b>NOTE:</b> Other discipline staffing is budgeted to their home departments, such as respiratory therapists for the critical care units or physical therapy, etc) and then their work time is allocated to the areas based on needs. These needs are determined by the home departments based on the discipline specific history and planning. Interdisciplinary administrative leadership meetings help to determine the needs.</p>
Projected expansion or construction	<ul style="list-style-type: none"> <li>• For new programs</li> </ul>

Prior budget year data and the first five months of actual data are used to create a process to forecast the next year’s budget. A thorough review of any changes or pending new programs is taken into account during this process. The manager works with their Administrative Director where they will discuss forecasted changes in census, patient days, changes in acuity, new providers, expanded capacity, or any modifications to resources that may be needed due to expansion, construction, or change in population for a specific area.

Nursing turnover and vacancy data are also reviewed at this time and used when forecasting staffing needs/plans. In addition, nonproductive time is build into the system along with allocations for FMLA, ill, unplanned leaves of absences, vacations, and holidays. The use of Clinical Staffing Resource Staff (internal registry) and sitter usage is also included in the staffing budget planning.

All of this information is assimilated using a staffing model template which includes: average daily census, skill mix hours, budgeted hours per patient day, variable staffing hours, orientation, training, shared governance time, call, and salary dollars. [EP8-Exhibit A-1-MICU Staffing Model Template, EP8-Exhibit A-2-VUH 6N Budget Staffing Model Template] Staffing templates “lay out” the information in a grid that allows for comparisons to the benchmarking data and calculation for expense per patient day.

The entity CNO, area Administrative Director and Assistant Director of Finance meet with the manager to review and make recommendations to the proposed budget. Information used in the budget development is reviewed. This information is helpful when the entity CNOs present any changes in staffing models/plans or request for new FTEs to the Executive CNO.

### **Benchmarking:**

During the budget planning process, VUMC uses benchmarking to compare to other academic institutions. Financial and clinical outcomes data from Solucient's ACTION-OI are housed in the University Health Consortium's (UHC's) Operational Data Base. As a UHC member, we use this data to evaluate our performance, compared to other organizations, and pinpoint opportunities to control costs and improve quality. Children's Hospital uses the CHCA data base for comparison to other children's hospitals.

For nursing hours resource allocation the NDNQI hours per patient day comparisons are used as well as any appropriate professional association standards/recommendations for nurse/patient ratios. *(In-depth information and examples on the use of ANA Principles and professional association standards are provided in EP 11)*

The units/clinics compare themselves quarterly/annually to this benchmark data looking at total costs and worked hours per unit of service. We can then look at best practice facilities that excel in the effective use of resources to gain knowledge to help us set and reach targets and goals.

Our overall goal for staffing is to be in the 50<sup>th</sup> percentile. We look at the issues that are unique to Vanderbilt, including a few step-down patients mixed in with critical care patients, shorter lengths of stay compared to other academic medical centers (high rates of admission, discharge and transfer), and acuity. As we build our staffing models, the managers' voice as the expert about their own areas is the driving force. All avenues are explored until the proposed model meets the needs of the patient population and the clinical staff. *[EP8-Exhibit B-1-Solucient Data VCH FY10, EP8-Exhibit B-2-Solucient Data VUH FY11, EP8-Exhibit B-3-Solucient Data VUH FY10, EP8-Exhibit B-4-NDNQI QI 2010 Pub June 2010 Adult Medical Comparison HPPD, EP8-Exhibit B-5-NDNQI QI 2010 Pub June 2010 Adult Surgical Comparison HPPD, EP8-Exhibit B-6-NDNQI QI 2010 Pub June 2010 Pediatric Medicine Comparison HPPD]*

### **Staffing Models**

Utilizing the information and processes outlined above, staffing models and plans are developed to meet the unique needs of each area and patient population and support the Scope of Service. Each area is unique in regard to hours of care needed and census variations.

Direct care nurse input is invaluable in formulating and modifying staffing plans. Nurses experience trends on a daily basis and can point them out quickly, which allows for immediate action. Nursing leaders are then able to gather and utilize data to make a case for changes in staffing, whether that is a temporary increase in additional staff or an actual midyear change in HPPD. The use of qualitative data coupled with quantitative data has been a successful tool for ensuring quality patient care and staff satisfaction. Examples of the use of trended data to address staffing needs to meet the unique needs of patients are provided below.

**Acquiring Resources to support Application of Care Delivery Models**

Unit charge nurses meet every shift in each entity (VUH as a whole and VCH as a whole). They meet with the Administrative Coordinators (entity supervisors for patient flow) and the manager from the Clinical Staffing Resource Center (float pool) to discuss patient flow (admissions/discharges, bed availability) and staffing. If the use of float pool staff is required (whether licensed or unlicensed staff), the decisions around the allocation of these variable resources are made and reviewed during the meeting. Allocation is based on needs related to the Care Delivery Models and staffing matrix. Some units have “sister units” and if needed can float resources to the area of most need at this time. During the shift and before these meetings, the charge nurses are rounding with staff nurses to get information on real time patient acuity and anticipated changes in census for upcoming shifts.

**Table EP 8 – 2: HPPD based on the staffing models that we use**

FY 2010		
VUH Patient Care Units	Direct RN/LPN hrs	
	Actual	Budget
11 N Myelosuppression	8.5	8.3
11 S Burn Unit	12.0	13.0
10 N Trauma	13.2	13.2
10 S Medical	8.9	8.0
Dialysis (procedures)	4.4	3.9
9 N Surgical Stepdown	9.3	9.1
9 S Surgical	6.8	6.5
8 N Medical	6.9	6.5
8 S Medical	6.9	6.4

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7 North	7.9	8.0
8CCT- MICU	15.3	14.9
6N Neurology	7.1	7.1
6S Cardiac Stepdown	9.3	8.0
5N- CVICU	18.0	17.8
6CCT-Neurology ICU	13.7	14.5
4 East Obstetrics	6.4	6.4
Labor & Delivery (deliveries)	23.8	25.2
9CCT-Surgical ICU	14.8	15.0
7 RW	7.4	6.4
5-6 RW Orthopedics	6.9	6.9
4RW	7.5	7.4
TVC Obs	8.2	7.6
Cardiac Short Stay (CSS)	11.1	8.7
5S- New Cardiac Stepdown	9.3	8.7
Adult Emergency (visits)	2.7	2.6
<b>Children's Hospital</b>		
4A	9.1	9.9
Newborn Nursery	4.1	3.1
Nursery ICU	13.5	13.3
PCCU	19.3	19.0
5D- Cardio Overflow	0.0	0.0
6A Myelosuppression	10.4	10.7
6B Hem/Onc	10.3	9.5
6C Cardiology	10.6	10.7
7A Infant Medicine	7.8	7.5
7B Toddler Medicine	7.8	7.5
7C School-age Medicine	7.9	7.6
8A Young Surgery	8.0	7.8
8B Adolescent Surgery	8.0	7.7

8C Adolescent Medicine	7.9	7.7
Pediatric Emergency (visits)	2.5	2.7

## VUH – Adult Examples

### Women’s Services

Labor and Delivery is a busy unit that provides care for triage patient, inpatients, and surgery patients. The patient turnover is high, and many patients require a nurse to patient ratio of one to one. The charge nurse does not typically have a patient assignment, and is very busy making assignments, coordinating patient care with physicians, scheduling cases, backing up deliveries, acting as a resource to other staff, rounding on patients, and performing service recovery.

The idea of a resource nurse was originally created due to an incident involving a Nurse Resident that resulted in an Event Analysis. Through CCI’s (Center for Clinical Improvement) discussion with the direct care nurses involved, it was determined that due to the complex nature of the patient population; new graduate nurses (Nurse Residents) would benefit from additional support throughout the first year.

Evaluating other models of care throughout the Medical Center, the group saw that critical care units had charge nurses out of staffing, plus an additional resource nurse who did not have an assignment. The resource nurses were utilized to act as resources for new staff and could help with patients whose conditions deteriorated suddenly. Staff and leadership thought resource nurses would help in both situations.

Because they did not want a novice supervising a novice nurse – a two year minimum of L & D experience was set based on the need for the resource nurse to be completely familiar with Vanderbilt L&D practice. They would also need to be able to take triage patients and the community standard is two years of L&D experience for nurses working with triage patients. The resource nurse can also relieve some of the duties of the charge nurse, such as acting as back-up for deliveries, problem solving with staff, responding to emergent situations, assisting with patient care and transporting patients.

Executive leadership approved the positions. Guidelines for the resource nurse roles were developed by the team. The addition of the resource nurse has been positive. A survey was sent to the staff to evaluate the resource nurse role after implementation. Of the 26 nurses who responded, 100% said that having a resource nurse available improved their

workflow. Additionally the staff said the role serves as a valuable resource for high acuity patients. [EP8-Exhibit C-1-L&D Resource Nurse Guidelines, EP8-Exhibit C-2-VUH L&D Resource Nurse Survey Monkey]

#### **4 East – “In her own words” – Leann Grimes, RN - Award Winning Solution**

*“I participated in the first Frontline Nursing Leadership class and created a new staffing model for our unit related to the various types of patients we care for. I received feedback from my Frontline Leadership team. I also involved my fellow charge nurses on 4 East - Eva Lewis, Cindy King, Cindy Mullins, and my upper level leadership team Robin Mutz and Mitzie Fudge. They helped with determining which types of patients qualified with what acuity to ensure we were all on the same page. Anne Underhill, Director, Nursing finance, was consulted to ensure the project would be backed financially. Lyndora Hall, who was advancing in the Professional Practice Program, helped gather some of the data. The development of the project and most of the work I did myself then I took my proposed project to the group for their thoughts and suggestions*

*When entering the initial pilot group of Frontline Leadership I wanted to choose a project that would make a difference in nursing. The problem that I identified was the current staffing model we used on 4 East. We were staffing by the number of patients in the beds not by acuity. Due to the wide range of patients we cared for this was an issue. Unlike other hospitals that have all surgical or all postpartum patients on the same unit, Vanderbilt blends the services together. 4 East combines high risk and low risk ante-partum and postpartum patients along with GYN benign and GYN oncology patients. This includes caring for patients requiring radiation implants and chemotherapy, as well as off-service patients. Related to the increase in acuity on our unit, the decrease in staff satisfaction, increased staff turnover, decrease in patient satisfaction scores, and the potential for compromised patient care I chose to address the issue of staffing by acuity.*

*My goal was to finish my project in approximately 6 months and ready to present to the upper level management and Anne Underhill in December because the budget was being submitted for approval for the next year.*

*After researching similar teaching hospitals and speaking to AWHONN representatives, I could not find any facility that blends the types of patients that we do here at Vanderbilt. This resulted in the need to create an acuity tool that would capture these types of patients based on AWHONN and current surgical guidelines. I started by meeting with Anne Underhill in finance. She gave me insight of the budget and listened to my project idea. I had several steps in*



*collecting and gathering data. I had to identify which patients classified as high risk and low risk and have them clearly identified so all the data was consistent. After collecting data every 12 hours for 9 months the results were clear. We needed to revamp our current staffing model. The monthly ADT tracker was also included in the 9 months of data collection. The data reflected the types of patients we were caring for and the current number of staff we were using as well as a patient turnover factor. This data was used to propose a new staffing model for our coming budgetary year. I constructed a staffing model that would capture the patient acuity on our unit. I felt this was the only solution since there were no current staffing models in use at any other teaching facilities that I could implement. I also created a new charge nurse log sheet that would capture the needed to continue to collect the data needed as we moved forward. I met with Anne Underhill in finance first to get an understanding of the budget. She discussed with me the exact data needed in order to support the changes I wanted to implement. I included my fellow charge nurses and upper level management in collaboration and identifying the different types of patients to ensure all data was consistent while being gatherer. We identified specific indicators that would place a person high risk rather than low risk. I met with my Frontline Leadership group for added support, suggestions, and feedback. After gathering all data and completing all aspects of the project, I reviewed all data and explained what an impact the proposed tool could for our overall unit satisfaction and quality of care. After all data was presented to upper level management and to the finance team our unit budget for the 2008 fiscal year was formulated from my project outcomes. They implemented my acuity tool. We began staffing according to acuity.*

*Our budget for 2008 was based on OB low risk 55% (6:1 ratio), Antepartum 19% (3:1 ratio), GYN, High Risk OB and off-service 26% (4:1 ratio). Once implemented our patient satisfaction scores began to increase and our staff turnover began to decrease, and staff voiced fewer complaints about their assignments. For the fiscal year budget of 2009 and the acuity tool is still being implemented. Due to our recent decrease of obstetrical patients and increase of medical surgical and off service patients this increase in acuity is easily captured with this tool.*

*The acuity tool identifies and justifies the increase in needed nursing hours to care for the increased acuity. The budget for 2009 was based on OB low risk 42% (6:1 ratio), GYN, High Risk OB, and off-service 41% (4:1 ratio), antepartum 17% (3:1 ratio). As for the fiscal year of 2010, we are still using my tool. We continue to track the acuity on our unit and at the present time our acuity is as follows: OB low risk 54% (6-1 ratio), antepartum 16% (3:1 ratio), and GYN, High Risk OB and off-service 30% (4:1 ratio). (AWHONN Standards) This tool easily identifies when to staff up and down based on acuity. The model is a guide to the charge nurses to ensure staffing is appropriate.*

*Our nurse turn over decreased and nurses voiced fewer complaints over their assignments. Our patient satisfaction scores also increased based on the implementation of the project.*

*I was awarded nationally the Future of Nursing Leadership Award. Only three people out of 7,000 were selected and I was one of them. I have since then did an audio conference nationally and described my project and its outcomes and allowed listeners to ask me questions. I have shared my project with people all over the United States. I have been contacted by approximately 15 different institutions wanting to know about my acuity tool.”*

*[EP8-Exhibit D-1-4E Postpartum AWOHNN Standards, EP8-Exhibit D-2-Frontline Leadership PP-ABC's of Staffing]*

### **VCH – Children’s Examples**

#### **Unit Staffing Analysis supports need for additional staff: Neonatal Intensive Care Unit**

Marlee Crankshaw, RN, MSN manager of the Neonatal ICU, has a large number of tenured staff. She experienced many challenges in meeting the demands for staffing since her staff had multiple unanticipated FMLA’s and hours of ill time. She found that she had to use overtime and on call to cover these shifts. Due to the volume of her staff she also needed to cover for up to 10 staff off each week using vacation hours (6 full time RN spots, 2 part time RN spots, 1 MR, and one CP). She took this challenge to the Assistant Director of Finance, Anne Underhill, RN, MSN, CPA and they agreed on a plan for analysis and action. Marlee completed a data analysis and was able to demonstrate the following:

- required additional coverage for 2.1 staff off on each twelve hour shift daily for a total of 18,396 hours or 8.8 FTE’s
- in reviewing of staff tenure and vacation accrual: vacation accruals totaled 23,616 hours or 11.3 FTE’s per year
- review of in-service, holiday and bereavement hours: totaled 18,584 hours or 8.93 FTE’s

In summary, the total non-productive hours per year excluding orientation were 60,596 or 29.1 FTE’s. Marlee concluded that she was budgeted 22.73 FTE’s; however she needed a total of 29.1 FTE’s to help in flexing the need and decreasing the use of overtime. Since all staff do a certain amount of call, the difference of 6.37 FTE’s would be needed to cover. She reviewed this data with Anne Underhill and her Administrative Director, Susan Hernandez, RN,

MBA/HCM and was able to receive the support to increase her FTE's to meet the non-productive time of this large unit with tenured staff.

### **Addition of an Admission Nurse within the Float Pool**

The inpatient acute care nursing staff voiced concerns regarding the need for additional resources to assist with admission and discharges. The process of completing admission paperwork decreased the inpatient nurses' ability to provide care for patients in a timely manner. In an effort to utilize staffing resources in response to dynamically changing peak census, the admission nurse role was created.

The admission nurse role was implemented December 9, 2007. A revision of responsibilities and development of a documentation log took place in January 2009. A meeting was scheduled with the admission nurse to discuss the role, responsibilities, and needed changes. A log was created and provided to the admission nurse for feedback and/or needed changes. In reviewing the documentation logs, 1200 admissions were completed in Children's

The Pediatric ED reported that their compliance with completed admissions went up to the 90<sup>th</sup> percentile. Next steps will include collaborating with Children's admission department to compare total inpatient admission with data collected.

The admission nurse role within the Float Pool has made a huge impact on successful completion of admission histories throughout the organization. From February – June 2009, the admission nurse has completed a total of 1200 admissions within the following areas: NICU, PCCU, 5D, 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> floors.

### **ADT Nurse Concept Expanded – 8<sup>th</sup> Floor Children's**

The 8th floor is a medical-surgical acute care floor, with some pods that turn over 10 of the 12 patients per shift. This means that one or more nurses could have their entire patient assignment changed in a shift, essentially caring for 8 patients total. An ADT nurse position had already been piloted and implemented on the 7<sup>th</sup> floor as well as the Emergency Department. Based on their success, a pilot study was done using an ADT nurse for the 8<sup>th</sup> floor; as a throughput initiative. The staff helped collect data to document what days and times patient turnover occurred most frequently. [EP8-Exhibit E-1-ADT Worksheet]

The role was piloted in March 2009 and after the position was validated from data as defined in the ADT Proposal a nurse was hired for the full-time position in June 2009. The ADT nurse role has been defined to:

- Assist staff nurses with admissions, discharges and transfers
- Complete admission paperwork/required documentation
- Orient patient/family to the unit
- Complete discharge teaching and paperwork/documentation
- Decrease time it takes to discharge a patient once discharge orders are entered
- Assist staff nurses with transferring monitored patients to procedures (MRI, CT scan, Xray, Holding Room) which frees up the assigned staff nurse to remain on the floor the care for their other patients

Team members for this work:

- Vicki Jones, RN, BSN, 8<sup>th</sup> floor Nurse Manager
- Melissa Lord, RN
- Lindsey Kevetter, RN
- Medical Receptionists
- Charge Nurses

### **Procedural Area**

#### **Cardiac Cath/Electrophysiology Lab**

In FY 09, the Cardiac Procedure Recovery Unit's operating hours were 5:30am till 1 am. Discharge data reports were developed and queried from our patient documentation database. We were looking specifically at discharge times. The data was reviewed by the team and they used patient bed occupancy to align nursing staff ratios to occupancy. The data showed that

90% of the patients were discharged by 10pm. There was a consistent gap noted between 10 pm and 1am, when most of the patients were already discharged. Due to the staffing schedules, this resulted in a staffing inefficiency issue. Utilizing this data, a decision was made to change the hours of operation to 5:30am—11pm and change the shift worked hours to match the peak volumes times of 9am to 6pm. Human Resources was consulted regarding changes to the evening shift hours. The staff use self-scheduling and this change was incorporated into the self-scheduling process. They embraced this change as a way to improve staffing and patient and nursing satisfaction.

Goals of this work included:

- To target peak operational hours to optimize nursing work hours and workload
- Address staff satisfaction regarding timeliness of lunch during peak volume times; which was identified by the staff and timekeeper due to the large number of cancelled meal deductions
- Address perceived decreased volume during later part of evening

The unit was working to become more operationally efficient in maintaining procedural throughput and matching staffing resources against patient volumes. The change was needed to meet budgetary requirements and maintain cost per unit of service metrics. The change was also to address staff concerns and satisfaction.

Results:

- Increased staffing during peak hours of operation, the evening shifts were adjusted to begin two hours earlier
- Lunch breaks were able to be provided in a timelier manner measured by verbal rounding with staff and decreased incidence of staff canceling the meal break deduction in the timekeeping system
- Continuous monitoring of patient occupancy to ensure adjustment fits demand

We continue to monitor bed utilization and have had fewer than 5 instances of patients requiring care in the Cardiac Procedural Unit after 11pm.

Team included:

**Table EP 8 – 3: Bed Utilization Team**

Marie Hasselblad, RN, BSN, Director of Invasive Cardiac Labs & Operating Rooms	Sponsor
Laura Zelenak, RN, Manager Cardiac Cath/EP	Department leader
Tiffany Richmond, RN, Assistant Manager Cardiac Cath/EP	Department leader
Leslie Wilkes, Health Systems Analyst II	Data collection
Jessica Grasso, RN Charge Nurse	Team member
Jodi Harris, RN Charge Nurse	Team member
Brian Cherry, RN Charge Nurse	Team member
Kevin Daigle, RT Supervisor	Team member
Cindy Black, RN Charge Nurse	Evening shift team member

[EP8-Exhibit F-1-Cath Lab Census Data, EP8-Exhibit F-2-Staff Satisfaction 1, EP8-Exhibit F-3-Staff Satisfaction 2]

**Staffing and Scheduling Process**  
**Source of Evidence 9**

**Describe and demonstrate how direct care nurses participate in staffing and scheduling process(es)**

As discussed in EP 8 nurses at all levels are involved in developing staffing plans and advocating for resources to deliver quality patient care. Equally as important is the support for direct care nurses to participate in staffing and scheduling processes; which supports nursing satisfaction and quality patient care. Please cross-reference text and examples from EP 8.

**Unit-Based Staffing Guidelines and Self-Scheduling**

Organization-wide staffing guidelines and criteria policies (see below) provide the basis for unit based- scheduling processes. Each area develops their own “Staffing and Scheduling Guidelines”. This is accomplished in a number of ways which involve the direct care nurses. Staffing guidelines are developed and monitored through the unit board and/or a staffing team. This supports individual areas to adopt guidelines that meet their needs around Scope of Care and patient care needs.

Self-scheduling is accomplished by different ways. Some areas use their unit boards or staffing oversight committee. Unit specific guidelines address the issues such as: Care Delivery Model (staffing matrix), number of weekends, on-call shifts (if required), time-off/vacation requests, staffing mix per shift, consideration of training requirements and trading shifts. These individual guidelines are reviewed and approved by our Clinical Workforce Committee to ensure appropriate compliance with organization-wide criteria. Regardless of the oversight method used, direct care staff share responsibility for appropriate and safe scheduling to meet patient care needs. Schedules are finalized by a member of the leadership team per the Scheduling Process Policy (CL 20-06.25). The leader will confirm staffing requirements per shift for each level of staff and review weekend commitments. *[EP9-Exhibit A-1-Unit Based Scheduling Guidelines Revised 3-23-2010, EP9-Exhibit A-2-PEDS All Scheduling Combined 08-05-09, EP9-Exhibit A-3-Staff Scheduling and Attendance for 9 South]*

The following policies provide the basis for unit-based scheduling methods:

- **CL 20-06.25** Patient Care Services: Scheduling Process A scheduling template for each department/unit to create a unit-based staffing and scheduling policy using consistent guidelines. *[EP9-Exhibit B-1-CL 20.06.25 Policy]*

- **CL 30-02.01** Clinical Practice Guidelines Defines the fundamental expectations for care provided to patients of Vanderbilt University Medical Center. [EP9-Exhibit B-2-CL 30.02.01 Policy]
- **OP 10-20.06** Census Management: Closing/ Opening Units The guidelines for opening and closing units based on census and are implemented by the Administrative Coordinator (AC) and unit management. This policy manages staffing uniformly and addresses maintaining staffing levels for quick deployment when demands increase. [EP9-Exhibit B-3-OP 10.20.06 Policy]
- **OP 80-10.14** Census Management: Management of Bed Resources During Periods of High Volume MCJCH A plan to establish overall staffing plan during times of high census in the Monroe Carell Junior Children’s Hospital at Vanderbilt (MCJCHV), while providing appropriate and consistent in-patient access. [EP9-Exhibit B-4-OP 10.80.14]

### **Internet based electronic staffing system – VandyWorks – for Self-Scheduling**

VandyWorks is our electronic self-scheduling system. Implemented in late 2006, this self-scheduling system further supports our long-term approach to direct-care nurses participation in staffing and scheduling processes. Based on defined overarching and area based policies, staffs enter their own schedules into an electronic system. The system is programmed for each area to address specific issues in their individual staffing guidelines, such as number of weekends, staffing mix per shift, etc.

The scheduling process at VUMC is completed in a variety of ways. Direct care nurses on the in-patient units may use any of three different methods or a combination of these: fixed rotational, preference, and self or modified self scheduling depending on the unit. The nursing units use staff input and unit specific requirements when choosing the best type of scheduling for their unit; vested through committees or boards.

When scheduling, the unit considers level of experience and competency of the direct care nurses. Staffs who act as preceptors help guide the new staff member during orientation. The preceptor informs the manager when a new staff member may not be ready to end their orientation period and changes are then made to support that staff member and still meet staffing requirements for the units. Charge nurses are oriented to their role and are designated responsible for making staffing decisions and matching staff experience and competency to patient care assignments each shift.



Scheduling in the out-patient and procedural areas may be a fixed rotational schedule but can also have some flexibility based on the needs to stagger shifts to allow for scheduling flexibility and meeting the patient care needs. [EP9-Exhibit C-1-VandyWorks Real Time Self Scheduler, EP9-Exhibit C-2-Staffing at a Glance VandyWorks, EP9-Exhibit C-3-Printed Schedules VandyWorks]

***Self or Modified Self Scheduling Models:***

Self or modified self scheduling is used in many of the in-patient units. Self scheduling allows nursing staff to be autonomous and in charge of their schedules, promoting accountability and responsibility that lead to job satisfaction and personal growth. Direct care staffs that have more involvement in making their own schedules have less absences and requests for last minute changes in their schedule.

Scheduling in all in-patient units and many of the procedural and clinic areas is completed electronically using the VandyWorks staffing and scheduling system. In this system the scheduling rules for each unit can be applied to the system which then allows staff to sign up electronically through the web from any computer (work or home). Units determine their staffing needs using templates and open the scheduling process in “windows” which makes the process equal for all staff. Predetermined rules surrounding weekends or holidays can be entered into the system so that staffs are responsible for the unit obligations 24/7 coverage. Staffing guidelines are covered in each area’s individual staffing guidelines which were developed by the staff.

The electronic scheduling system gives staff the flexibility to enter requests for time off, vacation, holidays, or pre-planned ill time. Leadership reviews the request and the staff member can see in the system the status of their requests. Staffs also have the flexibility to trade shifts with staff of equal skill and competency in the system by posting the shift for other staff to see. Trading shifts decreases the number of last minute schedule requests and holds the nurse responsible for finding coverage for a requested shift.

***Rotational or Fixed Scheduling:***

Rotational or fixed scheduling supports units to have a predictable staffing mix and staffs have the opportunity to plan ahead and schedule their personal needs around their work time. Some direct care staff on the in-patient units prefer this to provide for work life balance. Fixed scheduling is used in many of the clinics and procedural areas as many are open the

traditional five day business week model. This scheduling is still done through staff self-scheduling in the VandyWorks system.

## Examples

### 7 North Inpatient Cardiology

The unit board identified the need to change the way they did their holiday scheduling which was a ranking system. Brittany Bale, RN 2 led this work. One of the first steps was to see what other units around the Medical Center were doing with holiday scheduling. That information was compiled and shared with the staff. The next step was discussion at the unit board meeting of the potential options and their application to the staff of 7 North and their care delivery model.

At the unit board meeting, the group selected a new option for holiday staffing to be considered. This option, along with their current option of ranking, was then sent out to the staffs via Survey Monkey for voting/ranking. The staff chose the new option for holiday scheduling/staffing. After the new guidelines were implemented, a satisfaction survey was done and 61.7% of the staff (who completed the survey) responded that the change had been positive for them. [EP9-Exhibit D-1-7 North Timeline-emails re: doc Holiday Staffing, EP9-Exhibit D-2-Holiday Scheduling Options VOTE, EP9-Exhibit D-3-7 North Self Scheduling Process 20101, EP9-Exhibit D-4-Survey Summary 8-27-2010]

### 4 North Labor & Delivery

*“On our unit, the schedule for the holidays is always very difficult, there are days that are hard to staff. In the past, many different methods have been used, but not successfully enough to please the majority of the unit.*

*Our Unit Board meets monthly, and is open to all staff members. A sub-group was formed to develop the holiday schedule. The Unit Board Chairs are Tina Kornguth, RN and Nikki Simpson RN2. The subgroup consists of Emily Guess, RN Charge, Blair Anderson RN 4, Tina Kornguth, RN 2 and Mickey Parke, RN Charge. The goals of the group were to decrease the length of time needed to develop the holiday schedule, to be able to plan holidays in advance, and to improve staff satisfaction around the holidays.*

*The Unit Board Meeting introduced the issue and developed the sub-group one month. The second month, the sub-group met and came up with options/alternatives. The third month the options were reviewed at Unit Board and a decision was reached by the staff.*

*The outcome was a plan to rotate the holidays into groups of 3. Each staff member is put into a group and each group is designated a group of holidays. The groupings are then rotated each year. Overall, the schedule was easier to make. Staffs were happier, and there was less confusion.”*

## **Emily Guess RN Charge**

### **4 North L&D**

#### **Medical Center East PACU/Holding**

MCE HR/PACU staffs did not have adequate/agreed upon guidelines for vacation requests or approval/disapproval notification of vacation requests. Family Life was affected because frequently an employee would not be aware of their vacation request status until the current time was posted. This made airfare and reservations difficult to arrange and caused unnecessary anxiety for the employees and their families.

The Unit Board initiated a process in May 09 to develop a process for vacation requests that was completed in September 09. The team included:

- Barbara Vinson, RN 3, BSN, MCE HR/PACU Unit Board Rep and Presenter
- Cindy Waggoner, RN 2, MCE HR/PACU Unit Board Chair
- MCE HR/PACU Unit Board Representatives

Barbara Vinson researched other units' vacation guidelines and convened the MCE HR/PACU employees for suggestions. She presented the options to the Unit Board. It was discussed and revised and the final guidelines were approved by the Unit Board. All RNs, Care Partners and Medical Receptionists were affected. These guidelines provide a clear notification process for approval/disapproval of vacation requests in a timely manner. The guidelines will be used for 2 years. At that time the process would be re-evaluated by Unit Board. [EP9-Exhibit E-1-MCE PACU Minutes]

**Cath Lab**

The cardiac cath lab (CCL) provides emergent care to patients experiencing acute myocardial infarctions. This care is provided on weekends, holidays, and weekdays from 7pm to 7am utilizing an on-call team. Previously, this team consisted of 3 team members including at least one nurse and then either an additional nurse or two radiology or cardiovascular technicians. The nurses in the unit expressed concern that most often the team consisted of one nurse and two technicians, which caused the nursing staff to feel vulnerable and unsupported. The nursing staffs pointed out there were very limited resources available to them during these hours of coverage when extra help was needed to manage a critically ill patient. They advocated for the addition of a fourth call team member and a requirement that at least two of the four team members be registered nurses.

The team that came together to address this issue included:

**Table EP 9 – 1: Participants**

Marie Hasselblad, RN—Interim Director Invasive Cardiology	Ashley Lord, RN
Tiffany Richmond, RN—Assistant manager	Rene Ooten, RN
Jennifer Crouse, RN	Ida Oudomsouk, RN
Mike Clark, CVT	Rachel Provost, RN
Mandy Fraley, RN	Tori Rolin, RN
Quintana Goldthreate, CLPT	James Whitfield RN
Randy Hood, RN	Ricky Woodard, CLPT
Anne Koetz, RN	Teri Wrenn, RN
Joe Krueger, SPT	Wander Wright, RN
Neil Legaspi, RN	

The reason for implementing this change included the nursing staff’s overwhelming concern that one nurse caring for a critically ill patient was not safe practice. The group did realize the call requirement would double for each person; however, this issue was so important to them professionally they suggested the change. There were also problems during this time with reaching the 90 minute door-to-balloon time goal for ST elevation myocardial infarction (STEMI) patients and the leadership team hypothesized that the need for additional help may be a contributing factor to several of the failures.

Since this change was completed off-cycle related to the budget, it required budget-neutral implementation. This was accomplished by having staff work call shifts in place of scheduled shifts for the remainder of the year. We did not stay completely budget neutral, however, we were able to explain the variance satisfactorily. This was then budgeted appropriately in the next cycle.

The staff preferred to have the opportunity to sign-up for the call shifts rather than being assigned. It was also agreed that unfilled slots would be assigned on a rotating basis (for example, if Susie is assigned to fill a slot no one volunteered for, she would drop to the bottom of the list). There has very rarely been a need to assign call shifts as the staff preferred volunteer system has worked well.

Community survey results demonstrated an 8% improvement in staff's perception that the work unit was staffed adequately from 2008 to 2009. Additionally, the door-to-balloon times demonstrated improvement, reaching 100% of goal since spring 2008. Nursing staff has verbally expressed the importance of this change to their sense of security as they care for this critically ill patient population. [EP9-Exhibit F-1-Scope of Care-Cath Lab]

### **Vanderbilt Heart and Vascular Institute (VHVI) Access Center**

The VHVI Access Center which is responsible for routing patients from outside hospitals through our STEMI network is mission critical and is staffed 24/7. The Center has 7 registered nurses total with 1 nurse scheduled on weekends and night. If there are ill calls, getting a replacement was challenging. Due to the complexity of the work, using a Clinical Staffing Resource Center (float) nurse would be challenging.

The staff met and discussed the issue. They looked at their work in comparison with units like ECMO and Dialysis that use on-call due to the need for a specialized skill set and small staff size. They also recognized that most of the problems are on the night shift which has only two nurses assigned. Based on the discussion, the staff developed a plan to address the issue of ill calls.

The Access Center staff developed a 24/7 on call coverage system. They also looked within the scope of the cardiology nursing areas and were able to cross train an RN who could help cover. The team has been pleased with their plan as there has been no interruption of coverage. In addition, the Access Center has successfully recruited and retained staff with the on call requirements. [EP9-Exhibit G-1-Access Center OnCall Policy]

### **VMG Williamson Clinics**

The nursing staffs in Brentwood and Westhaven clinics have worked together over the past year to provide adequate coverage for both of their clinics by considering their staffing together and floating between clinics. Small clinics struggle to flex staffing appropriately in isolation from other clinics. By working together, the nursing staff realized that they could better schedule and cover time off without jeopardizing patient care. The nurses in the clinics took the lead in proposing and implementing a “joint” schedule.

The outcome has been positive response from staff and infrequent need from supplemental staffing. The staff continues to staff/schedule jointly which confirms the positive effects of this change is staffing/scheduling. This process has been with other clinics so they can incorporate it into budgeting for 2011. [*EP9-Exhibit H-1-Schedule Guidelines*]

**Staffing and Scheduling Processes**  
**Source of Evidence 11**

**Describe and demonstrate how guidelines such as the *ANA Principles of Nurse Staffing* (American Nurses Association, 2005), standards for scheduling, delegation, and from nursing specialty organizations and/or state mandated requirements are incorporated into staffing and scheduling process.**

We have incorporated *The ANA Principles of Nurse Staffing* at the unit, clinic, and organization levels.

**Table EP 11 – 1: ANA Principles of Nurse Staffing: Comparison to VUMC Policies**

ANA Principles	VUMC Practices
<b>Patient Care Unit Related</b>	
<ul style="list-style-type: none"> <li>• Appropriate staffing levels for a patient care unit reflect analysis of individual and aggregate patient needs.</li> <li>• There is a critical need to either retire or seriously question the usefulness of the concept of the nursing hours per patient day (NHPPD).</li> <li>• Unit functions necessary to support delivery of quality patient care must also be considered in determining staffing levels.</li> </ul>	<ul style="list-style-type: none"> <li>• Nursing staffing levels are planned using a template supported by national benchmarked data. (Solucient, Patients First MA, UHC and professional organizations) Nursing front line leaders review staffing from shift-to-shift to account for acuity, nursing skill set and unit functions: such as admissions, discharges, and transfers (ADT) and make adjustments as needed.</li> <li>• HPPD is only one data set considered in the determination of staffing levels and is more often used in staffing effectiveness. Safety, care delivery models and direct care nurse experience/skill mix support decisions about staffing levels.</li> </ul>
<b>Staff Related</b>	
<ul style="list-style-type: none"> <li>• The specific needs of various patient populations should determine the appropriate clinical competencies required of the nurse practicing in that area.</li> <li>• Registered nurses must have nursing management support and representation at both the operational level and the executive level.</li> </ul>	<ul style="list-style-type: none"> <li>• Scopes of Care are individualized to meet each unit/clinics unique patient population and are updated annually and as needed. Each scope contains specific skills and competencies necessary to provide for that population of patients. Competency is addressed organizationally and unit specific. Organizationally the Nurse Educator Council develops specific organizational competencies each year. Unit based educators address unit based competencies which are updated annually and address specific issues to include procedures/equipment and low volume, high</li> </ul>

Exemplary Professional Practice  
Staffing and Scheduling Processes (11)

<ul style="list-style-type: none"> <li>• Clinical support from experienced RNs should be readily available to those RNs with less proficiency.</li> </ul>	<p>complexity and documents on going competency annually at the time of performance review.</p> <ul style="list-style-type: none"> <li>• Nursing leadership is positioned organizationally to advocate for additional clinical resources as identified through best practice models and changes in the practice environment as identified in the sources of evidence under Transformational Leadership. Direct care nurses are represented through our shared governance structures.</li> <li>• Experienced clinical support for all nursing staff is available to support RN's of different skill levels. New staffs have preceptors and RN 3 and 4, which serve as resources to them. Units/ clinics have designed staffing complements that support nursing any given shift and include a charge nurse role designed (without a patient assignment) to support unit operations as well as act as a clinical resource to staff. Specialty nurses also serve as support to the staff, such as; wound/ostomy, infection control, etc. In addition, another resource available is the Administrative Coordinator for clinical questions and operational concerns.</li> </ul>
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**Organizational Related**

<ul style="list-style-type: none"> <li>• Organizational policy should reflect an organizational climate that values the registered nurses and other employees as strategic assets and exhibit a true commitment to filling budgeted positions in a timely manner.</li> <li>• All institutions should have documented competencies for nursing staff, including agency or supplemental and travel RNs for those activities that they have been authorized to perform.</li> <li>• Organizational policies should recognize the myriad of needs of both patients and nursing staff.</li> </ul>	<ul style="list-style-type: none"> <li>• Our organizational strategic goal for our People Pillar: <i>We nurture a caring, culturally sensitive and professional atmosphere as we continuously invest in the individual and collective aspirations of our people.</i> Nurse leaders have a high level of accountability for the utilization of personnel resources to meet the patient care needs and achieve high quality outcomes. Nurse leaders' partnership with recruitment ensures solid plans related to advertising, job and career fairs, and dedicated recruiters for nursing. Targeted selection interviewing and our Nurse Residency program support the filling of budgeted positions in a timely manner with the most qualified applicants.</li> <li>• Initial and annual clinical competencies are determined both centrally and at the unit level. Demonstration is required on at least an annual basis. Agency or supplemental and travel RNs have the same competency</li> </ul>
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Exemplary Professional Practice  
Staffing and Scheduling Processes (11)

	<p>expectations as the regular nursing staff.</p> <ul style="list-style-type: none"><li>• <i>Policy CL 20-07.02 Orientation, Competency, and Performance Development</i> covers required competency plan for all direct care staff. <i>Policy CL 20-06.20 Use of Supplemental Staffing for Professional Positions</i> covers competency requirements for supplemental agency staffing.</li><li>• <i>Policy- CL 20-06.07 Staffing Effectiveness and CL 20-05 Administrative Standards, Vanderbilt University Medical Centers Plan for Providing Patient Care.</i> Describes the staffing expectations. <i>CL 20-06.25 Patient Care Services: Scheduling Process</i> sets a standard for consistency for the scheduling process, schedule length, and how a staff requests benefit time.</li><li>• The administration of each Patient Care Center (PCC) is charged with the responsibility for having appropriate staffing to meet patient needs in the clinical areas 24 hours a day, 7 days a week.</li><li>• Staffs that float are required to meet the competency requirements of the areas where they float.</li><li>• Scope of Services documents recognize and support the various needs of both patients and nurses throughout the organization.</li></ul>
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Our standardized staffing and scheduling system *VandyWorks*, is a web-based staffing solution that both management and staff can access at home or work. This program supports front line leaders who are making staffing decisions based on census and acuity when viewing the unit's staffing. Leadership and charge nurses can easily forecast for the following and future shifts to see if staffing levels meet the unit's staffing template and can make decisions to adjust staffing based on unit based criteria. Staffing assignments are entered electronically to ensure staff skill and job match for all assignments. The *VandyWorks* system also monitors licensure and certification to meet unit and state regulations. (*Refer to EP 8 for the table showing actual direct hours versus budgeted.*)

We have incorporated the Tennessee Nurses Association (TNA) guidelines for Registered Nurses working with Licensed Practical Nurses and unlicensed assistive personnel on delegation and supervision.

**Table EP 11 – 2: TNA Guidelines of Delegation and Supervision: Comparison to VMC Policy and Practice**

TNA Principles	VMC Practices
<ul style="list-style-type: none"> <li>• The Registered Nurse (RN) directs patient care and determines the appropriate utilization of assistive personnel.</li> <li>• The RN may delegate to another only those nursing measures which that person is qualified to perform and may not delegate assessment.</li> <li>• Delegation of nursing care activities is the professional right and responsibility of the RN.</li> <li>• The decision of whether or not to delegate is based on the RN’s assessment about the condition of the patient and follows the Five Rights (principles) of Delegation.               <ul style="list-style-type: none"> <li>○ The Right task</li> <li>○ Under the Right circumstances</li> <li>○ To the Right person</li> <li>○ With the Right directions and communication</li> <li>○ Under the Right supervision and evaluation</li> </ul> </li> <li>• Oversight of delegation requires appropriate presence and availability of the supervising RN.</li> <li>• The RN retains accountability for the safe and effective delivery of patient care.</li> <li>• There is both individual and organizational accountability for delegation of nursing tasks to assistive personnel.</li> </ul>	<ul style="list-style-type: none"> <li>• Vanderbilt’s Clinical Practice Guidelines CL 30-02.01 state the Registered Nurse (RN) coordinates and implements patient care and patient/significant other education, including assessment, planning, intervention, and evaluation.</li> <li>• The RN coordinates and supervises components of care which may be delegated to other staff.</li> <li>• The RN, in accordance with the professional standard of practice, state nurse practice act and regulatory language must evaluate the performance of any delegated task, and is ultimately responsible for patient outcomes relative to nursing care.</li> <li>• Delegation training is started during nursing orientation and is reinforced at the unit level.</li> <li>• All VUMC staffing templates for in-patient staffing support RN oversight over all non-licensed clinical staff allowing for supervision on all delegated tasks and for LPNs when used in the staffing model.</li> <li>• Vanderbilt’s key functions for the RN job description address delegation and accountability to plan and manage patient care. Based on the experience of the RN and placement in the VUMC VPNPP ladder, the RN is able to use appropriate delegation skills to organize their clinical assignments from the novice to the expert.</li> </ul>

Summaries from the following documents:

- American Nurses Association and National Council of State Boards of Nursing, (2006) *Joint Statement on Delegation*.
- Tennessee Nurses Association (1998; reviewed and reaffirmed 2009) *Delegation and Supervision, Guidelines for Registered Nurses Working With Unlicensed Assistive Personnel*.
- Tennessee Nurses Association (1998; reviewed and reaffirmed 2009) *Rules and Regulations of Licensed Practical Nurses*

*(Refer to example below on the addition of LPN into the staffing model for the Medical Infusion Clinic at One Hundred Oaks off-site clinic)*

### **Nursing Specialty Organizations**

Nursing Specialty Organizations such as AWHONN (Association of Women’s Health, Obstetrics and Neonatal Nurses), AORN (Association of Operating Room Nurses) and AACN (American Association of Critical-Care Nurses) have specific staffing standards based on a specific patient population. Vanderbilt incorporates these staffing standards into the unit templates of the correlated areas to support safe staffing.

### **Delegation Education**

#### **For the Nurse Residents (NRs):**

Workshop #2 is dedicated to “Delegation, Organization, and Time Management.” The objective for the delegation piece is: to describe how to delegate and supervise patient care delivered by unlicensed/supportive personnel. There is a presentation and then table work discussions using scenarios provided by the unit-based nurse educators. We review the care partner job description (sent to them in advance). After the presentation, we work on a Delegation Decision-making Grid and review ways to assess/plan for appropriate delegation. We have them process ways to manage the situations given in the scenarios. We ask them to provide and discuss as a group scenarios that they may have encountered to date in their current rotation. We also invite discussion from the NRs regarding any transition issues for those who may have been care partners (or other unlicensed positions). This will often

engender dialogue about their feelings on the transition, positive and negative. [EP11-Exhibit A-1-Care Partner Delegation Scenarios v04-21-10, EP11-Exhibit A-2-CP Job Description, EP11-Exhibit A-3-Delegation Forms, EP11-Exhibit A-4-NRP Delegation v04-15-10]

**“In their own words”**

*“I thought the delegation workshop was particularly helpful because it went into details about delegation and as a new nurse this can be a challenge. I found it helpful that we went over Vanderbilt's policy on delegation and the job description of "care partners". I actually learned a lot of valuable information during this particular workshop as well as the others that I have attended. Although in nursing school we did go over delegation, this workshop gave me more in depth information to make informed decisions about delegation.”*

**Jenell Lower, RN, Nurse Resident  
VCH (6 A Myelosuppression)**

*“The delegation class in the nurse residency program was very helpful. Before the class I was unsure of what exactly the role of a care partner really was. The class explained through examples what my responsibilities on the floor were versus the care partner’s responsibilities. For example, I was unaware before the class that care partners could be delegated Foley care which is very helpful throughout my work days. It was also helpful in giving me tips on how to approach delegating roles. It is also difficult as a new nurse to speak up or ask for help and through the class I obtained the skills to successfully do so.”*

**Carrie Armstrong, RN, BSN  
9 North Surgical Unit**

*“As the new kid on the block, I was not sure what I could or should delegate. The session on delegation helped me to know what could be delegated. There were things that I learned that a care partner could do that I was not even aware of.”*

**Jessica Matis, RN (Nurse Resident)  
8<sup>th</sup> Floor Inpatient Medicine**

**Delegation education for experienced nurses new to Vanderbilt**

During Clinical Orientation for new experienced nursing employees, there is extensive discussion about the culture here at VUMC and the roles of different members of the health

care team. Delegation is covered extensively, including the “5 Rights of Delegation”: (from the National Council of State Boards of Nursing, 1997)

1. Right Task
2. Right Circumstances
3. Right Person
4. Right Direction/Communication
5. Right Supervision

Delegation is also addressed from the standpoint of the Nurse Practice Act of TN, VUMC policies, job descriptions, and models of care. [*EP11-Exhibit B-1-Exp Nurses New to VUMC-Delegation*]

### **Examples of Staffing and Scheduling Processes**

#### **Staffing using AACN guidelines in the MICU**

The MICU (Medical Intensive Care Unit) uses the AACN’s policy statements and standards as a foundation for how staffing decisions are made and how a schedule is developed. The AACN’s statement regarding staffing: “Staffing is both a process and an outcome and is often difficult to define. Critical Care staffing levels must be driven by the unique needs of each patient and the competencies of the nurse”. AACN also states in their standards for a Healthy Work Environment that “staffing must ensure the effective match between patient needs and nurse competencies.” The MICU does not base staffing only on the technical and mechanical assistance a patient may require but also on the unique needs of the patient and the nurse’s abilities. These decisions are driven by safety needs. For example a patient with CRRT (continuous renal replacement therapy) that could be a part of a two patient assignment, however, with all private rooms response to complications might be somewhat delayed if in another patient’s room so these patients are made a one to one patient assignment.

All nurses have the opportunity to assist in staffing decisions by making the Charge Nurse aware of patient needs that could affect assignments as well as the nurse’s competencies or need to refine competency/skills. Using the same example of the patient with CRRT, the

staff would complete a training course on this procedure. He/she would be assigned a patient receiving this therapy with a nurse who is experienced with CRRT as a next door neighbor and a Help All who can serve as a resource. Scheduling in the MICU includes plans for being full with high acuity patients so that there is flexibility. When census or acuity is low, then the unit staffs down so that the number of nurses matches the census and acuity. Scheduling also includes making sure that there is a mix on each shift of newer, less experienced staff, with more experienced nurses. [EP11-Exhibit C-1-MICU Staffing]

### **Staffing for the Neonatal Intensive Care Unit – VCH**

The NICU is a unique area requiring highly trained specialized staff. Staffing guidelines for the NICU are based on the Scope of Care, the ANA Principles of Nurse Staffing and benchmarking data from CHCA with a NICU specific group. This supports us to ensure we are consistent with other organizations and network. Our NICU is a Level III, which by definition means that we provide care for the most critically ill neonates that other centers are not able to care for.

Unit based staff include registered nurses, respiratory therapists, nurse externs and care partners with an assistive role twenty four hours per day. Staffing needs are variable due to the fluctuations in census and acuity, which are unpredictable. The charge nurse and the staff determine the shift assignments and the charge nurse supervises assignments during the shift. Assignment decisions are based on staff skill set and competency levels. There are typically 4-5 patients who require an assignment of a 1:1 (nurse/patient) ratio. The majority of the other patient assignments are a 2:1 (nurse/patient) ratio. In the intermediate care, or step-down unit, where many babies will be waiting for discharge, the staffing assignments are typically 3:1(nurse/patient) ratio.

The 1:1 babies are those that are hemodynamically unstable, babies on multiple drips, pre-ECMO patients or current ECMO patients. Our 1:2 babies are 1 baby on the ventilator with another baby on oxygen assist device (nasal cannula, vapotherm, CPAP). The 1:2 assignments could also be 2 stable babies that are still on the ventilator. [EP11-Exhibit D-1-NICU Staffing]

### **Staffing for the Myelosuppression Unit - VUH**

The Myelosuppression Unit (11 North) is a 27 bed step down unit for adult stem cell transplant (SCT), hematology, high dose chemotherapy and medical oncology patients. The average acuity is 3 on a 4 point scale; with the hematology patients having the highest acuity. The SCT and hematology patients represent 80 -90 percent of the patient days on the unit. The

Unit is an intensive place as the nurses provide extensive teaching and emotional support and administer an average of 300 units of blood products per month and an average of 300 medication doses per shift.

Although the Oncology Nursing Society does not have a position on staffing ratios, the organization has released a two-part workforce survey that assists with planning staffing for oncology units. The nurse to patient ratio on 11 North is 3:1 or 4:1 with a dedicated charge nurse. Previously, the night charge nurse did take a 2 patient assignment. One RN was added to the night staffing matrix to eliminate the charge nurse taking patients. This gives the charge nurse the availability to act as a resource and mentor the nurse residents and assist with critical patients. The unit is also staffed with 3 care partners and 1 medical receptionist each shift. [EP11-Exhibit E-1-11 North Staffing, EP11-Exhibit E-2-Matrix 2011 11 North]

### **Staffing for Labor and Delivery – VUH**

The ACOG/AAP Guidelines for Perinatal Care (sixth edition) provide the framework for patient assignments and delivery of patient care on the perinatal units. The recommended RN/Patient ratios for Perinatal Care Services are used for intrapartum, antepartum, and postpartum patients. Staffing patterns in labor and delivery are based on these staffing guidelines as the acuity needs of the patients. [EP11-Exhibit F-1-Staffing Grid from L&D, EP11-Exhibit F-2-L&D Patient Ratio]

### **Staffing for Children’s Post-Anesthesia Care Unit – PACU**

The American Society for Perianesthesia Nursing (ASPAN) publishes staffing standards every two years. These standards are utilized by Children’s PACU for developing staffing templates to assist in determining nurse to patient ratios based on acuity and patient age. The standards specifically describe 1:1 patient assignment needs for each phase of recovery. Using this information, the leadership evaluates the projected case mix and predicts necessary staffing resources. The FTEs for Children’s PACU were significantly increased for the 2009 fiscal year based on the ASPAN standards. [EP11-Exhibit G-1-Patient Classification 2008-10 Standards PACU, EP11-Exhibit G-2-AORN Guidance Statement for Perioperative Staffing, EP11-Exhibit G-3-VCH PACU Staffing]

### Medical Infusion Clinic at One Hundred Oaks

Medical Infusion relocated to One Hundred Oaks (off-site location) in March 2009 and almost immediately, volumes increased by nearly 50%. During staff meetings, the team discussed what processes were working and what changes needed to be made. They were able to compare actual patient visits/procedures with budgeted.

They discussed that with this unanticipated increase in volume the nursing staff had begun to feel the effects of too much overtime and possible burnout among the experienced nursing staff. The need was apparent to both the leadership team and the direct care staff, that additional staff would be required. The nursing and leadership teams worked to define the workflow processes to determine what would be needed to provide quality care.

An agreement was reached that a change in staffing mix would be appropriate. Additional RNs and an additional LPN were added. The LPN was integrated into the existing RN teams and provides the much needed support to insure a smooth and safe patient experience. The previous model had included one LPN functioning mostly in a medical assistant role in a poorly defined role.

With the changes in the LPN's role as defined by the RN staff, LPNs now provide in-take services (excluding assessments), escort the patients into the infusion suite, start IVs, monitor vital signs and discontinue IVs. This team approach has enabled the Medical Infusion Clinic to decrease patient wait times for medication administration when RN's are tending to other patients. Prior wait times for medications had been approximately 60 minutes and are now at less than 15 minutes. Additionally, it allows the RN's to focus their efforts on those activities that require their skill set and do so in a manner that does not require the extensive juggling of multiple patients at one time. This has supported the Infusion Clinic's ability to increase patient volume while still focusing on quality and patient and nursing satisfaction. The following staff members were involved in this important change process.

**Table EP 11 – 3: Participants**

Cherie Sloan, RN (Charge)	Teresa Spsychalski, RN 2
Kristy Bishop, RN 3	Pam Brace, LPN
Teresa Sheffey, RN 2	Jaime Howell, LPN
Carol Norton, RN 2	Jeff Black, MEd (Manager)



## Staffing and Scheduling Processes

### Source of Evidence 12

#### **Describe and demonstrate how nurses analyze data to guide decisions regarding unit and department budget formulation, implementation, monitoring and evaluation.**

The process for how nurses analyze data to guide decisions regarding unit and department budget formulation, monitoring and evaluation is outlined in EP SOE 8, as written for staffing. Nurses at every level of the organization are involved in the budget process. At the operational clinical area level, nursing leadership and staff are responsible for the development of the fiscal year budgets (salary, non-salary, capital). At the core foundation of this decentralized budget development process is the commitment and accountability of nursing leadership to ensure the inherent right of our patients to have safe, efficient and effective nursing care.

#### **Budget Formulation**

*(Please refer to EP 8 for details about budget formulation)* Budget development is at the point of care level as a collaborative effort by the unit/clinic leadership team in conjunction with the Administrative Director and the Financial Officer assigned to the area. Our fiscal year is July – June and actual budget preparation starts in December. Our electronic process supports managers in decision-making and submission. As outlined in EP SOE 8, a number of tools are available and utilized. Budgets are prepared at the point of service in preparation for the senior leadership team, including the Executive CNO, who represents the budget to the Medical Center Board.

#### **Implementation/Operationalization**

Once budgets are approved point of care leaders are accountable for day to day operations and variances. Although account numbers/amounts are set, budgets are not written in stone and leaders have latitude in the use of certain funds to meet the needs of the staff and patients.

For staffing, each area completes bi-weekly variance reports (by pay periods) that are used as a regular validation tool giving feedback on performance as it relates to hours per patient day and budget. Variance reports support the actual implementation of the budget as well as act as a monitoring tool. This gives nursing the ability to review trending data to support changes as unit patient population changes and acuity levels vary and help drive changes if needed throughout the year. *[EP12-Exhibit A-1-6N Bi Weekly Variance Reports Example]*

#### **Monitoring:**

Managers and Administrative Directors have many electronic reports available to track financial performance. Electronic files such as Waldo (labor and salary), E-dog (budget), Business Objects (value trending), ProClarity and VandyWorks are available for budget monitoring. PeopleSoft is used to track positions and can be compared to planned budget. Sci-Health data allows comparison of quality

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indicators to identify trends or patterns by using the bi-weekly variance data. Charge Nurses on the in-patient units use reporting available in the VandyWorks staffing and scheduling system along with shift reports to collect data on census and staffing ratios on a per shift basis based on acuity of the patients. VandyWorks reporting tools can be used to proactively manage staffing resources to meet patient care needs. [EP12-Exhibit B-1-Charge Nurse Shift Report Sheet]

### **Evaluation:**

Administrators meet with their managers and assistant managers monthly and ad hoc to discuss budgetary performance and quality outcomes to assess for ongoing opportunities for improvement. During these discussions data is reviewed and team input is used to identify areas of improvement while looking at the overall nursing care being provided. Direct care nurses are part of the manager's team in the ongoing monitoring of staffing. Nurses are empowered to identify trends and share with leadership through immediate observation or through staff meetings, unit boards, and nursing councils. When care delivery models or patient population/acuity change emergently, staff needs are taken directly to the CNO by the Administrative Director.

The in-patient units plan staffing and budgets starting with a template designed by the Assistant Director of Finance. This is a basic Excel sheet using cost accounting principles. It is structured based on a staffing matrix and includes all labor costs for the fiscal year. Benchmarking is completed daily using this tool to see if a unit is on or off budget. This staffing matrix gives each unit a plan for their staffing based on patient census. Acuity is addressed daily and staffing plans adjusted to provide safe patient care. Managers use charge and direct care nurses to keep them apprised of urgent changes in acuity and need for staffing changes. As discussed in EP 8, daily entity based staffing/bed meetings support the assessment of the need for staff allocation.

Bi-weekly variance reporting supports managers in speaking monthly to their financial performance such as a change in acuity or other issues. This report was created and validated by the end users. The report includes two weeks of data for hours of care, census volume, staffing hours and dollars and includes overtime and premium dollar statistics. This tool provides the managers data to speak with confidence about decisions made during that period.

If the population of a unit has a significant change, using the original staffing template used in budgeting, it is easy to propose a change in the staffing model and adjust staffing without impact to the budget. Agreement from administration is requested. Once validated using the tool, changes can be made.

### **Examples**

#### **Inpatient Medical Unit Addition of Staff – 7 Round Wing**

In November 2008, 7 RW nursing care hours per patient day (HPPD) for RNs and LPNs ranged from 8.1 to 8.9. Our target was 6.6. The unit increased from 19 private beds to 28 beds (18 semi-private

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and 10 private) in September 2008. To meet workload and acuity requirements, registry and travel nurses were used to staff the nine new beds. Staffing levels were controlled by the charge nurses (CNs) based on 'perceived' needs with no practical data to support their decisions. The leadership team maintained a daily variance database which routinely documented staffing levels that were outside of budget. Yet, this frequently was not shared with CNs. Additionally, the staffing matrix at that time authorized CNs to staff with another nurse as soon as our census rose one patient above the normal staffing ratio (1:4 on days; 1:5 on nights). Their daily variance and biweekly budget reports showed that staffing levels exceeded workload. As a result, we were not meeting budget goals of 6.6 nursing hours per patient day.

7 Round Wing met with nursing administration and finance to identify areas for improvement. The first step was to hire additional staff nurses to stop dependency on travel and registry nurses to staff the unit. These nurses had a tendency to cost much more per hour than our average 7RW staff nurse and frequently did not have the same commitment to the goals of the organization. The daily variance database was decentralized, meaning it was shifted down to the CN level. CNs completed the daily variance report each shift as they were making staffing assignments for the next shift. This tool would automatically calculate nursing hours per patient day (HPPD) based on the current census and staffing levels. Thus, if the calculated HPPD was above target, CNs could re-evaluate their staffing needs.

After consultation with nursing administration, finance, and unit staff, the staffing matrix was amended so that each shift would absorb two additional patients above the normal 1:4 and 1:5 nurse-to-patient ratios before adding additional nursing staff (i.e. using on-call, requesting registry, etc.). Direct care staff were involved in this process and discussions through the unit board identified all were in agreement. The staff felt they could still provide safe, quality patient care with this change. In situations where patient census drops, CNs are also given the authority to flex down when patient workload does not support staffing levels. Charge Nurses send a shift report via email to the leadership team and charge nurse group with census, staffing and acuity information. This open and frequent communication allows for excellent oversight and accountability. CNs play a key role in managing the largest part of our budget—personnel costs.

Our main outcome measure is nursing hours per patient day (HPPD). We tracked and measured this using the daily variance reports and biweekly financial reports. We have not reached our targets yet but we have seen great improvement. Our average nursing HPPD in November 2008 ranged from 8.1 to 8.9. In November 2009 our HPPD ranges between 6.9 and 7.5.

The daily variance report was shared with other units in the Medicine PCC and is currently in use on 8 North and 8 South. Also, the idea of charge nurses providing shift reports, with input from the direct care nurses was adopted and implemented on 8 North and 8 South Medical Units.

The team involved in this change included:

**Table EP 12 – 1: Participants**

Michael Jordan RN, MSN	Manager, 7RW
Kaye Stobaugh RN, BSN	Assistant Manager, 7RW (now is Manager on 6N)
Denise Dean RN, ADN	Charge Nurse
Marayet Warner-Frances RN, AND	Charge Nurse
Jane Patey RN, BSN	Charge Nurse (now Assistant Manager on 7RW)
Darletta Steinmetz RN, ADN	Charge Nurse
AJ Zenthoefer RN, AND	Charge Nurse

[EP12-Exhibit C-1-Charge Nurse Shift Report for 7RW, EP12-Exhibit C-2-VUH 7RW Staffing Matrix (FY10), EP12-Exhibit C-3-Daily Variance 7RW (Charge Nurses), EP12-Exhibit C-4-7RW Minutes CN Meeting 12-11-2009]

**Staffing for Inpatient Adult Medicine Units- 8 North/8 South**

The 8<sup>th</sup> floor Inpatient Medicine area is comprised of a two units totaling 56 beds (8 North=32; 8 South = 24). A variety of medical diagnoses are admitted to the units, including, but not limited to, the following systems: pulmonary, circulatory, endocrine, renal, hematological, gastrointestinal, neurological, dermatological, and rheumatologic. In addition, oncology and infectious-disease diagnoses may be admitted.

Staffing guidelines for the 8<sup>th</sup> floor are outlined in the unit’s Scope of Care and are supported by benchmarking data from Solucient. The benchmarks allow our areas to ensure we are consistent with similar organizations or medical units. Staffing ratios are typically 4 patients to 1 nurse on day shift and 5 patients to 1 nurse on nights. There is a dedicated charge nurse on both shifts, who typically does not take a direct patient assignment. In addition, care partners assist in patient care twenty-four hours per day. A medical receptionist also supports the unit, covering 16 hours per day.

Nursing assignments are determined by the charge nurse with the support of the staff nurses and care partners. An acuity tool, developed by staff, is utilized on both shifts to help determine the skill sets needed to care for the patients. A scoring system of 1-3 points is used by the staff nurse to rank the patients’ needs. The care partners participate in filling out a portion of the tool, as well.

The charge nurse makes the assignment for the oncoming shift, while trying to distribute the scoring as evenly as possible. The charge nurse not only evaluates the overall scores of the potential assignment, but also reviews the experience, skill level, and competency of the nurse who will be taking the assignment. The charge nurse will also try to promote continuity of care by reassigning patients to the nurse who was here on the previous day or night. Geographical location of patients also impacts the

assignment decisions. Staffing and assignment decisions are an ongoing and dynamic process that is continuously evaluated by the charge nurse throughout the shift as patient flow changes. [EP12-Exhibit D-1-Scope of Care June 2010-8N, EP12-Exhibit D-2-8N Staffing Matrix, EP12-Exhibit D-3-Acuity Tool 8S side 2]

### **Staffing Processes 9 North Surgical Step-down**

9N the Surgical Step-down Unit utilizes a combination of team nursing and primary care nursing depending on the individual needs of the patient. Because our staffing needs vary with our census and acuity, our Charge Nurses in collaboration with the staff, use an acuity tool when making patient assignments. This allows them to make an assignment that most fits the patient's needs and matches the patient with the nurse's skill set and experience.

Most recently we were challenged with finding a way to balance our patient care needs with staffing related to ADL's. At that time our budget included 3 CP's on dayshift and 3 on nightshift; however, the bulk of our patient's ADL's i.e. baths, feedings, activity, travel was occurring during the dayshift. Our CP: patient ratio was 9:1. This was definitely difficult for our dayshift staff and was beginning to affect our patient satisfaction scores. We were in the middle of the budget year and our plan for the next fiscal year was to submit a request for an additional CP on days but in the interim we needed to find a way to best utilize the resources we had to meet the needs of our patients.

After studying our patient flow with admissions and discharges we discovered that the busiest time of day for CP's was during the hours of 11am-11pm. We decided to trial a flexible CP model where we would take one of the FTE's from nightshift and utilize it to schedule a CP to work from 11am-11pm. This would allow us to have an additional CP on dayshift to assist with ADL's and cover patient needs during the busiest time of the night shift from 7p-11p. We trialed this for a two -week period and surveyed staff and patients for feedback. Based on the feedback received we did make some adjustments to the responsibilities and expectations of the 11a-11p person but overall this staffing model worked well and we continued this until the end of the 2010 fiscal year.

To compensate for our known additional need, we're now using 4 CP M-F when census allows which helps stay within man-hour standards. This change to our staffing model has reduced our dayshift CP: PT ratio on days to 6-7:1. We also flex down to 2 CP on nightshift when census/acuity determines this to be the appropriate staffing.

Another unique aspect of staffing on 9N is our RN staffing model. Our RN: PT ratio is 3:1. Due to the varying acuity of our patients and our diverse patient population staffing adequately can be a challenge. We provide care for over 16 different specialties including, Thoracic Surgery, Orthopedics, Vascular, General Surgery, Plastics, Onc/Endo, Trauma are our primary services. In addition, we are the only unit outside of the ICU that cares for mechanically ventilated patients and surgical patients requiring cardiac monitoring.

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We also often see services such as Women's Health, Urology, and ENT just for our unit's unique and specific capabilities. All 27 of our patients are monitored via a bed-side cardiac monitoring system. Our patients frequently leave the unit and/or have bedside procedures that require a nurse to be with them at all times. This poses an issue with staffing because our staffing model defines that the primary nurse is expected to travel with the patient. The problem comes up because with a 3 to 1 patient assignment, they still have two other patients that require care. Procedures can last from 30 mins to 4 hours. Charge nurses are asked to cover the nurse's assignment while the primary nurse is away; however this can be an issue depending on the condition of the other patients on the unit, current staffing skill mix present on that day, and additional duties the CN still have to perform.

We have identified the need for a "float nurse" or a "help all" to be available during these times. Our volume of transports did not support the use of a 10<sup>th</sup> nurse for this purpose everyday so, our intent is to manage our staffing appropriately during times of low census and acuity so we could utilize an extra nurse on targeted high acuity/census days and continue to meet our man hour target on a monthly or annual basis.

In FY10 we met our goal and stayed within budget utilizing on a few occasions a 10<sup>th</sup> nurse to allow staff to complete education and skill check offs during the shift too. Our goal this year is to expand that role and include it in the fixed budget. [EP12-Exhibit E-1-9N Acuity System 2, EP12-Exhibit E-2-FY11 Staffing Matrix]

### **Need for additional RN mid-budget cycle based on patient acuity – 6 A/B VCH**

6A/B experienced increased acuities and nurses expressed and validated the need for a 5<sup>th</sup> RN on busy days. The unit staffed accordingly and started to track the needs in relation to stem cell transplant volumes, end of life and blood administration volumes. The normal staffing model was 3:1 for patient/RN ratio and 1 care partner per pod.

Patient acuity was higher on certain days and they wanted to be able to track and determine how often extra RN hours were needed and how this correlated with the number of stem cell transplants, blood product administration and end of life issues. Stem cell transplants were up 20% in year 2009 from 2008. Medication data from the pharmacy showed the unit had an exceptionally high volume of medication administration in relation to number of RN staff (680 meds/day on 6A/B).

The CNO advocated for the change and the CEO was in support. They round routinely on the unit and spoke to physician and nursing staff about these needs on rounds. The unit continues to monitor RN hours, number of Stem cell transplants, blood administration data and RN satisfaction.

The 2009 community survey results showed the following for staff on 6A/B:

- Overall job satisfaction-97%

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- Enough people are available in my work group to accomplish the necessary workload- 81% (best in class score was 57%)
  
- My coworkers are friendly and helpful-95%

Team Members involved in this process included:

**Table EP 12 – 2: Participants**

Lora Mitchell	Care Partner 6A/B
Valerie Herndon, RN, BSN	Assistant Manager 6A/B
Debbie Shinkle, RN, BSN, MHA	Educator 6A/B
Linda Fenoglio, RN, BSN	6A/B
Yolanda Ricci, RN, BSN	6A/B
Bonnie Carroll, RN, BSN	6A/B
Holly Tyler, RN, BSN	6A/B
Heather Bondie, RN, BSN	Charge Nurse 6A/B
Amie Flowers, RN, AND	Charge Nurse 6A/B
Corrie Higdon, RN, BSN	Charge Nurse 6A/B
Janice Lane, RN, AND	Charge Nurse 6A/B
Summer Scull, RN, BSN	Charge Nurse 6A/B
Virginia Spickler-Elams, RN, BSN	Charge Nurse 6A/B
Connie Ford, RN, MSN	Director Pediatric hem/onc integrated service line
Haydar Frangoul, MD	Medical Director for Ped. Stem cell transplant program
Kevin Churchwell, MD	CEO Children’s Hospital
Pat Givens, RN, M Ed	CNO Children’s Hospital

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Stephani Sephel, MS	Quality coordinator, transfusion service Blood Bank
Becky Manes, RN, CNS	Stem Cell Transplant Coordinator



## Interdisciplinary Care

### Source of Evidence 13

**Describe and demonstrate how nurses have assumed leadership roles in interdisciplinary collaboration.**

#### Introduction

“Interdisciplinary collaboration” is not just one of those “catch phrases” at VUMC, it is how we provide patient care and conduct operations. At the patient care level, direct care nurses assume leadership roles in interdisciplinary collaboration in regard to planning, implementing and assessing plans of care. Staff nurse participation is integral to the work of the organization with many taking the lead in interdisciplinary hospital committees and task force efforts. Please refer to Organizational Overview Question 15 for the list of nursing participation in all the house-wide, unit and nursing discipline specific councils. In addition, nursing leaders at all levels assume leadership roles in strategic planning and operations at the organizational level.

#### Credo Behaviors

Commitment to colleagues and collaboration are part of our core values as evidenced in our credo behaviors, by which all employees are evaluated annually [*EP 13-Exhibit A-1-Credo*]

*I am committed to my colleagues:*

- Contribute to my work group in positive ways and continuously support the efforts of others
- View all colleagues as equally important members of the Vanderbilt team, regardless of job, role or title
- Promote interdepartmental cooperation

Please refer to Organizational Overview Question 17 for examples of how the Credo Behaviors are integrated as part of our performance evaluations [*EP13-Exhibit A-2-Blinded Example of Annual Performance Evaluation Credo Piece, EP13-Exhibit A-3-Performance Development Policy FINAL 81409*].

#### Job Descriptions/Evaluations

Job descriptions/evaluations for nurses at all levels emphasis leadership in interdisciplinary collaboration. Direct care registered nurses 1-4 under our Vanderbilt Professional Nursing Practice Program (VPNPP), have key function – Communication and

Collaboration – which specifically addresses collaboration with the health care team. As direct care nurses advance in experience and VPNPP level, the expectation of autonomy and leadership in collaboration increases. The table below provides interdisciplinary examples for RN 3 and RN 4. For reference RN 3 leadership speaks more specifically to issues at the bedside and issues for RN 4 are to be more system-wide.

**Table EP 13 – 1: Examples of RN 3 & 4 providing interdisciplinary leadership**

Level	Nurse/Area	Leadership Example
RN3	Ruth Donlon RN,  Internal Medicine & PEDS  Manager - Pat Covington, RN, BSN	<ul style="list-style-type: none"> <li data-bbox="565 594 1443 1255">• “Last year I assessed a need in our clinic for more comprehensive pediatric pt. education and a need to make the atmosphere of our clinic more "pediatric friendly". I made multiple phone calls and finally located a Children's Hospital liaison named Rachael Hackler. I now have a working relationship with Rachael and she has provided our clinic with Children's Hospital "Champ" wallboards and pt. education handouts. All of the materials are in English and Spanish and are displayed in the clinic. This has been a project that I envisioned and implemented and is still ongoing as I update the boards and materials every few months. Every time new material is displayed I follow up with an email to staff outlining the new pt. educational materials and I encourage everyone to use these materials. The wallboards and educational materials are a great example of improved group practice.”</li> <li data-bbox="565 1287 1443 1860">• “With expertise triage skills, a great part of my day is problem solving and promoting pt. safety. With thorough pt. assessments and utilization of the electronic chart and outside resources, I have caught medication errors, immunization errors, orders that were missed or did not have follow up, inaccurate pt. summaries etc, and inaccurate documentation. When I have found these inconsistencies, I collaborate with the physician, the pt. and family prn other members of health care team, star panel team prn and rectify the error. I check pt. summaries for accuracy and do medication reconciliation with my pt.'s I update data prn on pt. summaries when needed and provide appropriate pt/family education. I helped a physician problem solve when a pt. stated that her narcotics had been</li> </ul>

		<p>stolen and provided the clinic with a police report as evidence in an attempt to get more narcotics. After careful inspection of the police report, I showed Dr. Jones how the document appeared to have been altered and it also had inconsistent data with what the pt. provided. I called the pt. to discuss and the pt. admitted that the report was bogus. Dr. Jones then spoke with the pt. and determined that the pt. was in an unsafe environment with a daughter that was taking her medications. Dr. Jones made an contract with the pt. to get her narcotics and avoid letting her daughter have access to them. This is just one example of how problem solving is a part of my role as clinic nurse. I participate and collaborate with star panel team and pharmacy to improve Rx star and star panel function. If I find glitches or think of ways to improve work flow I will e-mail a team member to address the situation. Many times my suggestions have been implemented. Example: adding the distinction of Peds hepatitis A vs. Adult hepatitis A in the Accudose machine to avoid medication error. I positively support change in my clinic by actively participating in nurses meetings, suite meetings and clinic board when available. I maintain a positive attitude and will be open to discussing and brainstorming new ideas and implementing changes as they occur.”</p>
RN3	<p>Juli Reynolds, RN VCH Periop Services: HR/PACU Manager: Karin League, RN, MSN</p>	<ul style="list-style-type: none"> <li>• “A young girl, newly diagnosed with cancer, was admitted to the Holding Room for a port-a-cath placement. Her mom, a single parent, accompanied her. While assessing her preoperatively, I learned that she was a candidate for a specialized treatment plan and was schedule to consult with her Oncologist at 2 this afternoon. This consultation was a preliminary to the treatment that was to begin the next day. As her procedure time approached, I recognized that due to a delay in the OR, she may not make this appointment time. I also felt that the time concern was an unnecessary distraction for the mom in caring for her child during this procedure. Action: I contacted the clinic to inform them of the delay. It was then that I learned that she already had been scheduled</li> </ul>

		<p>for the latest possible time. I learned then that it was not going to be possible to reschedule until the next week. This would delay the start of treatment for another week, which for this child was unacceptable. With the family traveling from out of town, it would also be inconvenient. I the paged the Oncologist that she was scheduled to see. When he returned my call, he also reiterated that the timing of treatment was crucial and that he would need to complete the consult prior to treatment. We then coordinated a consult at the bedside in the HR prior to her procedure. Results: The Oncologist was able to leave his clinic to come to the Holding Room that morning to do the necessary consultation with the parent. He expressed to me then how important it was that I had contacted him, making him aware of the schedule change, giving him the opportunity to see the parent on this day. In further discussion with this parent, I learned that she was overwhelmed with the information that she needed to keep track of. I introduced her to FIN (Family Information Notebook), through the Junior League Family Resource Center. She was thrilled to have a tool to keep medical records and health information in one place. While her child played with toys and watched a movie, she used the paper I gave her to begin creating her own notebook, beginning with her resource page that I was able to print off our web site, giving her other resources to check out. Later that afternoon the Oncologist came to find me and thank me for coordinating the consult, reporting that her treatment would not be delayed now because they were able to obtain the information and schedule the necessary tests to begin treatment the very next day.”</p> <ul style="list-style-type: none"><li>• “I am currently working on a collaborative work of communication for the clinics to use to prepare the patients/families for surgery. This is in the editing process at this time. I created a Google document on which multiple users could edit simultaneously. (outcome pending) On one occasion in the Inpatient Unit I was caring for a child who was</li></ul>
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		<p>having a G-tube placed when the father arrived on the 3rd floor and was accompanied to the bedside to be with the child. I learned then that the father did not have custody of the child and at this time was in legal proceedings to gain custody. He had come to visit the child and learned of the surgery. He was upset having not been notified of the surgery and the mother was on restraining order, not allowed to visit the child. Because he stated he was the dad, I was in a position to notify the HCT of HIPPA caution with the dad not being on the birth certificate. While the charge nurse investigated the legalities, the child went to surgery. The father was agreeable to the Grandparent phone consent and just being allowed to remain present. When contacted, the mom and grandparent were agreeable to the father being present. I discussed the HIPPA concern with the father, he verbalized understanding and was grateful that we had let him stay and pursued the information that allowed for him to stay.”</p> <ul style="list-style-type: none"><li>• “When having a patient who required factor to be infused and labs drawn prior to surgery, I questioned our policy. Orders were received for labs and 2 hour infusion of factor VIII. This child's care was not cared for by one of the hemophilia nurses. Feeling that there was a more efficient and excellent way to go about the plan of care, I consulted with Dr. Donahue who was doing the anesthesia. This consult resulted in the gathering of all HCT members involved for reconsideration. After learning the infusion could be over 30 minutes, not 2 hours, the plan was revised and the child was able to go to surgery and while the procedure was being set up, anesthesia would get the lab and infusion. This resulted in a better outcome for the parents and the child who now would not have to undergo a painful IV stick. It was also a more efficient use of OR and staff time. This being the first experience for the family with this diagnosis and treatment, I was also able to educate the family regarding the plan of care. With Dr. Donahue, we were able to provide the family with information regarding concerns directly related to surgical procedures and anesthesia. The family verbalized</li></ul>
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		<p>understanding and is now equipped with information regarding the concerns for any future needs for anesthesia.”</p>
RN4	<p>Therese Adams, RN, BSN, MPH</p> <p>Adult Eskind Endocrinology</p> <p>Manager: Katie Brennan, RN</p>	<ul style="list-style-type: none"> <li>• “I work with outside provider offices to coordinate Thyrogen injections locally to assist patients with reducing total overnight stays for Thyrogen scan and/or ablation treatments. I also work with the Thyrogen One Company to assist with optimizing pt's insurance plans to cover maximum services while reducing out of pocket costs. Work with provider offices to instruct how to give Thyrogen injections and teach signs and symptoms to monitor for untoward effects. Coordinated lab testing for pregnant adrenal patient (atypical and uncommon diagnosis for 20y/o) as well as working with both local OB-GYN and Hospital staff on ensuring evidenced based mgmt of adrenal insufficiency. Monitor shipment of Thyrogen medication to ensure timely and proper delivery to correct facility prior to expected date of service. Assist patients with obtaining critical medications such as Dibenzyline for pt's with adrenal tumors; medication costly and only available from one company. Process can be lengthy to obtain assistance, however this pt population typically require medication urgently for short term immediately prior to surgery to prevent malignant hypertension.”</li> <li>• “Responsible for leading and coordinating the ADA recognition project specific for our gestational diabetic population. Assisted the recognition team in developing teaching tools, patient education materials as well as developing a comprehensive assessment tool that incorporated behavioral and psychosocial focus areas to help guide educators in creating a collaborative patient education plan. This process helped the team identify opportunities to raise level of excellence in teaching. Upon accepting pituitary clinic responsibilities, compiled materials and prepared folders to provide to each patient before surgery. Currently in process of working with Dr. Utz to revise adrenal insufficiency instruction sheet to incorporate/add specific instructions for Cushing's patients. Assist patients experiencing complex barriers such as</li> </ul>

		<p>cultural/religious/financial to find alternative sources to assist with receiving necessary care or services.”</p> <ul style="list-style-type: none"><li>• “Always practice at highest level to ensure patients receive exceptional and safe care. When encountering issues impacting patient safety such as incorrect prescriptions or errors, always initiate 1:1 with individual to educate and assist with their growth. The clinic had only one signature pad installed in P1 clinical workstation. When room in use, had to print out consent and handwrite information then scan to EMR. When a handwritten consent was not timely scanned to EMR at time of surgery causing delay in surgery, I investigated all options available to us to assist with preventing this situation. I was able to work with IT to install software to two laptops as well as acquire another unused signature pad for use in obtaining electronic consents for thyroid and neuro-pit patients. This did not cost clinic and reduced need for paper copies as well as reduced scanning needs and potential for incorrect MR scanned document or untimely entry before surgical procedure. Participated on Quality Pillar team and coordinated initial efforts to improve patient flow. Conducted survey of check-in staff and held initial meeting to discuss and obtain team input on solutions. Coordinated and led ADA GDM recognition team with ultimate obtainment of ADA recognition. Used weekly and quarterly data to facilitate QI process in GDM program. Obtained authorization allowance for Patricia Patterson and me to edit star notes for further developing templates for clinic. When staffing changes created gap, accepted additional responsibilities for Pituitary Clinic to ensure consistency in delivery of patient care. When GDM team encountered issue with data collection, guided team and provided recommendations to further edit input forms for easier data collection.”</li><li>• “Always cognizant of my responsibilities and impact on co-workers if ill or needing to be out of clinic. Always try to assist with phone triage or rx when heavy influx/volume or staffing constraints impacting timely processing. I have tried to</li></ul>
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		<p>maximize efficiency by observing triage box and assisting where able to keep patient wait times down. Assist others with learning whiteboard and using consistently. Trained LPN to assist with FNA thyroid biopsies and simultaneously mentored on leadership, communication and patient safety skills. Assisted with training LPN staff with RX star input and provided constructive feedback through 1:1 coaching. Provided examples as well as demonstrated proper documentation techniques to assist individuals with obtaining next level of proficiency. Assisting with precepting new RN staff and promoting positive attitude. Recently intervened with situation between provider and staff members and initiated informal coaching to efficiently resolve conflict and ultimately ensure patient care not interrupted.”</p>
<p>RN4</p>	<p>Rochelle Anglin, RN  8 South  Manager: Kim Linville, RN, BSN</p>	<ul style="list-style-type: none"> <li>● “Using the evidence that happy nurses = better patient outcomes, I have developed a "Living in Joy," seminar series aimed at helping nurses review their dreams and goals and reduce burnout. I have been invited by Chris Wilson and Kelly Ernst to mentor specific groups (Magnet Champions and Charge Nurses in training) regarding improving morale and co-worker relationships, using my Living in Joy series. I have also been invited by Sheryl Redlin-Frazier and Donna Ruth to address the Nurse Residents, and mentor them in retaining a positive and proactive outlook. These mentorships will be ongoing, as I have developed blog and weekly updates to provide new strategies. I have both informal (conversational) and formal (survey) evaluation tools in place for determining the success of this programs.”</li> <li>● “As part of the Communication with Families in-service, I discussed the way we need to provide written material, web addresses, and demonstration for families who will need to follow-up with pt care. I have frequently directed other nurses to the Mosby's Nursing Skills site, to obtain patient teaching information (to lead routine use of materials). I also use hand-outs or draw rudimentary pictures of hearts, etc. to help</li> </ul>



		<p>patients and families understand how the body works, or how dressings should be applied, for example. I routinely provide written drug information and verbalize why specific meds are important to the patient when administering them (to lead by example). As in the case of the complex Pancreatitis &amp; COPD patient, I assess pt reasons for noncompliance and resistance to interventions, teach the patient about his or her pathology and the problems a lack of movement was creating, and coach oncoming RN's regarding the status of patient and how we might overcome resistance of the patient. When coming back on shift, I routinely asked outgoing nurse what had been discussed or taught to patient, and what results we are having with patient compliance. Also, considering the population "nurses," I have developed a "Living in Joy" seminar series, which I have presented as in-services on my floor and as part of the Magnet Champion rallies, to help teach nurses to support themselves and one another. I have also developed specific tools, like Thank You cards, which I have provided for use in the Magnet process, and which will be distributed throughout the Vanderbilt system throughout this next year. I am continuing to be available as a mentor and resource through blogs, Yammer and email, will continue to provide encouragement strategies to Magnet Champions and charge nurses, and to encourage other individuals to find and live in their joy. Evaluation of the effectiveness of my materials and seminar information will be ongoing, through formal (survey) and informal (discussion of use of tools) means."</p> <ul style="list-style-type: none"><li>• As a "Falls Expert," 1. I have reviewed other nurses' charting and interventions and helped communicate the reasons for each. I also coached nurses to complete the interventions, and educate family and patients on the meaning of LAMP. 2. As kitchen policies have changed, and Par levels for snack boxes have become important, especially for night shift since the pantry is no longer open 24 hours, I have become more aware of the need to get these right. Recently, when a charge nurse assumed that ordering a snack box for a specific patient would</li></ul>
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		<p>be sufficient (the "easy" solution), I educated her that the entire floor would need snack options available, and that night shift would have no way to provide for patients if she did not initiate a floor request for snacks. Until that point, she was unaware of new kitchen policies and helping her understand the new system would help all of our nurses provide excellent care. 3. I have participated in and facilitated team problem solving in areas of family communication, positive attitude and individual communication between nurses, through in-services, Magnet rallies, and informal "break room" discussions. 4. Working with Education Department and licensed staff to achieve Magnet 2nd Designation. I am personally responsible for Magnet Champion Rally content, and am working with representatives from many units and areas to educate all staff on Magnet Designation. Data evaluation will be ongoing, assessing for knowledge of Magnet, and will be finalized in 2011. Evidence shows Magnet facilities have better patient outcomes. 5. When changes occur and people express their resistance or hesitancy to embrace the change, I am armed with the reasons these changes are good for patient care and our professionalism. For example, when the POC charting changed, I was quick to point out how the new charting made our goals extremely clear for the day. Part of supporting change positively includes assessing what, exactly, has changed. When we changed to OPC shift sheets, I noticed that we stopped giving SBAR reports, for fear of being redundant. Through individual mentoring, I continued to encourage full reports, and shared how I now use the OPC sheets to my advantage. Additionally, I am active in supporting and facilitating the 2<sup>nd</sup> designation of our Magnet Status as part of the Magnet Education Committee, which will be a Vanderbilt-wide change. (Please see KF1:C6 to note how these activities have led to formal mentorship opportunities.)"</p>
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The Nurse Managers' key function – Building Relationships: Team Building, Showing Support, Conflict Prevention and Management – addresses the responsibility for building and

maintaining an interdisciplinary collaborative environment. Administrative Directors for nursing and chief nursing officers have among their key functions – Ensures most effective operations of the department through program development, process improvement and coordination/integration or processes with other departments [EP13-Exhibit B-1-Job Information-Administrative Director-Key Functions, EP13-Exhibit B-2-Job Description-Nurse Manager-Key Functions, EP13-Exhibit B-3-Job Description-Chief Nursing Officer-Key Functions]

**Shared Governance**

Shared governance supports our commitment to interdisciplinary collaboration. At the unit/clinic/department level, many of our boards are interdisciplinary either with stake holders as regular members or as invited guests in relation to relevant issues. Patient Care Center boards are interdisciplinary for strategic planning and evaluation of patient care and operations.

**Examples:**

Nurses have assumed leadership roles in several key interdisciplinary collaborative initiatives throughout the Medical Center outside the specific scope of nursing shared governance. Selected examples are provided for all levels of nursing and types of collaboration. Also, please refer to Organizational Overview – Question 15 for multiple examples of nurses’ involvement on committees and initiatives throughout the Medical Center.

**Broad Organizational Level Interdisciplinary Collaboration**

**Table EP 13 – 2: Examples of nursing leadership of organizational initiatives interdisciplinary teams**

Initiative/Teams	Purpose/Goal	Nurse Leadership
Admission Checklist	Developed an interdisciplinary admission checklist for the Adolescent Unit in VPH that serves as a communication tool for the interdisciplinary team and helps to facilitate patient’s movement to the next level of care.	Carolyn Forest, RN 4, Adolescent Unit, VPH
Chest Pain Accreditation	Achieve and maintain Chest Pain Center Cycle II accreditation through the Society of Chest Pain Centers	Carol Parsons, RN, MSN, CEN, CCRN, Case Manager Interventional

Exemplary Professional Practice  
Interdisciplinary Care (EP13)

		Cardiology , Chest Pain Center Coordinator
Chlorhexidene Baths	Use of Chlorehexidene baths for the intensive care units	Darlene McCormick, RN 3-CC, CCRN MICU
Committees	Please refer to Organizational Overview Question 15 for multiple examples of interdisciplinary committees/task forces with nurses as chairs/co-chairs	Nurses at all Levels
Development of Ambulatory Anticoagulation Clinic	Consolidation of anticoagulation services from across the Medical Center into one clinic	Jodi Ervin, RN 2 Lead Direct Care Nurse, Anticoagulation Clinic ( <i>complete story in EP 7 EO</i> )
Disposable Trunk Cable and Lead Wires	Task Force that researched and obtained approval to use disposable trunk cables and lead wires in the intensive care units	Darlene McCormick, RN 3-CC, CCRN MICU
Early Pregnancy Loss Follow-up	Development of a Program/Materials/Resources List and follow-up mechanism for patients who have suffered early pregnancy loss	Rebecca Bell, RN 2, Staff Nurse, 4 South, Holding and PACU
Elevate – Leadership Develop Institute	Quarterly Leadership Assemblies for sustaining the commitment of VUMC’s leaders to our Credo and to sustaining a culture of excellence and service	Marilyn Dubree, RN, MSN, NE-BC, Executive Chief Nursing Officer
Flood Relief Response (May 2010)	University wide team to develop policies and strategies to aid VUMC employees affected by the flood	Robin Steaban, RN, MSN – Administrative Director, Vanderbilt Heart and Vascular Institute
Heart Failure Accreditation from the Society of Chest Pain	Achieve and maintain Heart Failure Accreditation from the SCPC (National)	Janice Gabbard, RN, MSN, Cardiology Nurse Manager

Exemplary Professional Practice  
Interdisciplinary Care (EP13)

Centers (National)		
Influenza – H1 N1 Pandemic Response (April 2009)	Develop plan for VUMC internal and external response to possible H1 N1 pandemic	Pam Hoffner, RN, MSN – VUMC Emergency Preparedness Coordinator  Nancye Feistritzer, RN, MSN – Associate Hospital Director, Perioperative Services <i>[EP13-Exhibit C-1-HiNi Summary]</i>
Institutional Critical Care Committee	Monitors and makes recommendations for organizational goals targeted to the Intensive Care Units to achieve satisfactory, stable measures.	Pam Jones, RN, MSN, Chief Nursing Officer/ Associate Hospital Director, Vanderbilt University Hospital
Iodine (Betadine) Prep Allergy	Adoption of Technicare Prep for patients with iodine allergy (Betadine) in the operative areas (specifically for gynecology surgery patients)	Lisa Oltean, RN, Perioperative Services
Medical Center Quality Council	Oversight, operational authority and responsibility for the assurance of an integrated, comprehensive and effective quality, safety and service program for the clinical enterprise.	Julie Morath, RN, MS, Chief Quality and Safety Officer, VUMC
NICHE unit work	7 RW ACE Unit dedicated to the care of geriatric patients and the use of Geriatric Practice Guidelines	Sandy Mc Gill, RN, MSN, MBA, Nurse Educator & NICHE Liaison  Diane DiCarlo, RN 2, BSN  Marayet Warner- Francis, RN, BSN, Charge

Exemplary Professional Practice  
Interdisciplinary Care (EP13)

		<p>Nurse</p> <p>Gail Gillis, RN 2, BSN</p> <p>Jessica Bowman, Care Partner</p>
Operations Policy Committee	Review, approve and act as a resource for administrative and operational policies for VUMC.	Susan Moseley, RN, MSN, Senior Director Performance Effectiveness, Center for Clinical Improvement
Pain during Arterial Sheath Pulls	Interdisciplinary change in practice after research determined that the use of Lidocaine during sheath pulls after cardiac procedures does not decrease pain	Brenda White, RN 2,BSN Staff Nurse, Electrophysiology Lab Sharon Paschall, RN 4, CC, Cardiac Cath Lab
Palliative Care Team Referrals for Burn Patients	Development of evidence-based triggers to the interdisciplinary burn team to determine when it is appropriate to consider a palliative care team referral for burn patients.	Stephen Nelson, RN Case Manager 1, Burn Unit <i>[EP13-Exhibit D-1-Burn Staff Minutes – (2), EP13-Exhibit D-2-Burn Unit Team Summary, EP13-Exhibit D-3-Burn Wound Documentation, EP13-Exhibit D-4-Burn Wound Form (how to find a tng patient)]</i>
Patient/Family Centered Care	Create and sustain an innovative approach to the planning, delivery, and evaluation of health care grounded in mutually beneficial partnerships among patients, their families and the health care team.	Terrell Smith, RN, MSN, Director Patient/Family Centered Care <i>(Information provided in EP 4)</i>
Primary Stroke Center	Achieve and maintain Primary Stroke	Jackie Moreland, RN,

Exemplary Professional Practice  
Interdisciplinary Care (EP13)

Certification by JCAHO	Center certification by the JCAHO	BSN, Stroke Coordinator
Prostatectomy Interdisciplinary Education Program	Forum to provide pre and post prostatectomy education for patients and families to improve understanding and support and improve clinic flow and outcomes.	Michelle Ardisson, RN, MSN, ACNP-BC  Stacie Knight-Evans, BSN, RN
Rapid Response Team	Develop and sustain a interdisciplinary team that responds to out of ICU calls for potential patient deterioration	Brent Lemonds, RN, EMT, MHA, FACHE, Administrative Director of Emergency Services
Service Improvement Committee	Remove barriers for staff in the workplace, involving admitting, supplies, linen, equipment, dietary/nutrition and IT	Brent Lemonds, RN, MS, EMT, FACHE, Administrative Director Emergency Services <i>[EP13-Exhibit E-1-Final SI Charter, EP13-Exhibit E-2 SI Committee Minutes 101909]</i>
STEMI Network (ST Elevation Myocardial Infarction) Program (Vanderbilt Initiative)	Organization and implementation of protocols and systems for the emergent transfer of STEMI patients from outlying communities in middle Tennessee and southern Kentucky to Vanderbilt Heart and Vascular Institute for treatment to expedite the time to treatment which limits the risk of heart muscle damage.	Carol Scott, RN, APN, Coordinator of STEMI Network <i>(Story in EP 7 EO)</i>
Unit/Clinic Boards	At the unit/clinic level the shared governance boards are chaired/co-chaired by the direct care nurses	Direct Care Nurses
Unused Blood returned to Blood Bank	Developed program/materials and educated team that ensures that blood ordered for procedures that has potential for significant blood loss and what is not used is returned to the blood bank by the OR Team for other use when possible	Maria Sullivan, RN 2  Sara Brazzale, RN 3 VCH Operative Services

Exemplary Professional Practice  
Interdisciplinary Care (EP13)

Urinary Tract Steering Committee	Developed nurse driven protocol for the placement and removal of indwelling urinary catheters to help decrease the risk and occurrence of catheter induced urinary tract infections	Roxy Baumgartner, RN, APN-BC, Urology Services



## **Interdisciplinary Care**

### **Source of Evidence 16**

#### **Describe and demonstrate interdisciplinary collaboration across multiple settings to ensure the continuum of care.**

Our PPM is patient/family centered and interdisciplinary collaboration across multiple settings to ensure the continuum of care is a critical element in regard to patient safety and quality outcomes. Direct care nurse are supported by several processes that help guide this important work. Through their autonomy and the resources of the interdisciplinary team, nurses are able to assist patients/families in bridging any possible gaps in care.

#### **Reliable System Design - Handovers**

Under our organizational Quality Pillar, we are invested in “reliable system design”. Reliable systems design is defined as: “The ability of the entire system to perform its required functions under slated conditions at all times. In a reliable health care system, there would be no variation in the quality of care due to the time or place, or because of geography, gender, or socio-economic status”. Part of the work supporting this element has been with “handover communication.” Communication failures are often cited as a common cause during event analysis when things go wrong in healthcare. Data from events analyzed at Vanderbilt support the continued improvement of communication between individuals and team.

We have defined handover communication as one of our 2010 pillar goal metrics, which provided a structure for standardized roll out across the organization. First, an interdisciplinary task force defined standardized communication across the enterprise. The mnemonic SBAR (Situation, Background, Assessment, and Recommendation) was chosen because of its tailorability to specific handover needs. Global handover education was adapted from a Vanderbilt AHRQ funded grant (simulation research) and enhanced with input from direct care providers, including of how they would structure providing shift report to another care provider [EP16-Exhibit A-1-Preventing Hand-off Mistakes]. An e-learning module was assigned to all direct care providers to provide a foundation for types of handovers. The module covered what makes handovers effective and lesser effective and expressed the desire to have participant involvement in the development of handover communication tools. A total of 5596 faculty and staff were assigned the “Assuring Great Handover Communication at VUMC” and 5326 have completed the assignment as of August 2010 [EP16-Exhibit A-2-Assuring Great Handover Communication].

In the exploration of how, when and what is included in handover conversation, we quickly learned that depending on your profession defined the amount of detail included in the handover. Nurses are more descriptive and patient family centered, whereas physician handovers are more specific and target.

Now members of the healthcare team use the standardized approach of SBAR to communicate patient-specific information when transferring the care of a patient between or among providers. SBAR has proven to be an effective communication technique for all members of the health care team. This was adopted from *The Institute for Healthcare Improvement. SBAR Technique for Communication: A Situational Briefing Model*. SBAR is used between and among all health care providers, and may be tailored for use in any exchange of information. [EP16-Exhibit B-1-Policy CL 30-08.04 Hand-off Communication]

### **Examples of Handover Work**

#### **VUH - 9 South Surgical, 9 North Surgical Stepdown and SICU Trauma**

There is frequent transfer of patients between these 3 units. The three units collaborated on a handover form to use on transfer of patients to and from each of these units. The basis of this work was the adopted standardized SBAR communication plan. This was done in conjunction with UHC and other facilities. Jay Morrison, RN, MSN (Quality Consultant from CCI) lead this effort.

The form was developed initially by the staff of the 3 units. Then the staff trialed, and further refined the form. The conclusion was that the form needed to be electronic and pull all information over into the SBAR format. Jay took this information to the committee that was developing Overview of Patient Care (OPC). Currently, 9 South, 9 North, and SICU are using OPC for shift report as well as for the transfer of patients to and from the units. OPC is a great tool that gives a snapshot of the patient at your finger tips. [EP16-Exhibit C-1-SBAR Handoff Report 9 & Trauma]

Further samples of handover forms are included in the supporting documents. Please refer to the forms for: PACU, PICU, Cardiology and NICU [EP16-Exhibit C-2-SBAR PACU Revised 9-07-2007, EP16-Exhibit C-3-PICU-Pediatric Anesthesia Handover-Final July 2010, EP16-Exhibit C-4-Cardiology Handover Form, EP16-Exhibit C-5-NICU Handover]

### **Case Management breaches the continuum of care**

Interdisciplinary collaboration across multiple settings to ensure the continuum of care for our patients/families is at the foundation of the Vanderbilt Case Management (CMgt) model. Central to our model is the belief that case management is an interdisciplinary process, not just a role. Similarly, our model, created in the early 1990's, is based on the conviction that

when teams are aligned properly and allowed to utilize their unique skills and experience, they will create better solutions than any single individual can develop in isolation. Our model depicts this belief that health care team interdependence supports high quality, cost efficient, satisfying care for our patients/families. [EP16-Exhibit D-1-CM Model, EP16-Exhibit D-2-CM Model Detail]

At Vanderbilt, we believe that every patient benefits from care management; it is the staff nurse, available 24/7/365 to our patients, who manages patient care at the primary care level. After all, it is because our patients need the 24/7 expert care of a registered nurse that insurance companies authorize inpatient admission status. However, as patient/family needs become more complicated, our interdisciplinary, service-based CMgt teams work collaboratively to support our staff nurses in continuum of care planning. Along with our staff nurses, our CMgt teams, work with physicians who direct the medical plan of care, the ancillary services (rehab service-PT, OT, ST, dieticians, respiratory therapy, pharmacy, wound/ostomy team, etc), with community agencies (LTACs, SNFs, ICFs, Rehab facilities, Home Health agencies, DME companies, etc) and with community resources to help low income families (Siloam Clinic, Faith Family Clinic, Indigent Drug Programs, etc) to promote optimal patient/family care across the continuum of care.

Vanderbilt CMgt teams consists of Nurse Case Managers (NCM), Social Workers (SW), UM Specialists (UM) and Financial Counselors (FC). In the Vanderbilt “Standard for Service Delivery” NCM, SW, UM, and FC function collaboratively to screen patients (identify for case management services) and assess those complex patients identified for services (including clinical, functional, psychosocial and financial needs). [EP16-Exhibit D-3-Standard for Service Delivery April 2009] Utilizing assessed information, and involving the patient/family and the interdisciplinary team, CMgt teams set priorities, develop, implement and evaluate plans of care that help move patients more efficiently through the Vanderbilt system and ensure a smooth transition to the next level in the continuum of care.

In addition to individualized pt/family continuum of care planning, the Vanderbilt vision supports CMgt teams as they work collaboratively to support/achieve system improvements that align with overall VUH and Patient Care Center (service line) goals. Particular emphasis is given to any issue identified that may impact the patient/family’s ability to move effectively and efficiently through the Vanderbilt system and back into home/their community. [EP16-Exhibit D-4-VUH Adult Case Manager Information, EP16-Exhibit D-5-VCH PEDS Case Managers]

### **Examples of Interdisciplinary Rounding**

#### **VUH**

**TRAUMA:**

Interdisciplinary trauma rounds were implemented in the ICU several years ago. The rounding team includes:

- Attending physician
- Physician fellow
- Chief resident
- Junior residents
- Nurse case manager
- Charge nurse
- Direct care nurse
- Dietician
- Pharmacist
- Respiratory therapist
- Patient's family members

The resident provides the history for the patient and the direct care nurse give the current state of the patient (last 24 hours, etc). The other disciplines provide updates on systems and recommendations for next steps and ongoing plan of care. The nurse case manager advises the entire team about the patient's discharge plan of care, explaining options for continuum of care planning and what should be done to facilitate moving the patient to the next level of care.

Based on input from the entire team, the chief resident reviews the plan for the day. The attending then serves as spokesperson and talks with the patient/family, providing them with a summary of the events of the last 24 hours as well as the plan for the day in layman's terms. Family members are able to ask as many questions as they want. Nurses work with patients/families to write down their questions prior to rounds. The attending advises the patient/family of what will be needed and the best options for continuum of care planning when it is time to move to the next level of care.

While there are many positive outcomes from interdisciplinary rounds, perhaps the most positive has been that our patient/families feel they are a part of rounds and are able to provide input regarding the care. While the primary reason this was initiated was to involve patients/families more in care planning, it also facilitated improved team communication and ensures everyone is on the same page. For patients and families it gives them a consistent time when they would be able to talk with their physician(s) as well as the interdisciplinary team.

Each team member clearly understands the goals for that day as well as some of the challenges that are involved in long term care or continuum of care planning. The unit nursing staffs have a clear picture of the plan of care and the goals for that day. The nurses have also heard exactly what the patient/family has heard – improving the nurse’s ability to get them involved in the plan.

This communication is helpful in the continuum of care planning as the NCM explores options with patients/ families, particularly with referrals for long term care. Hearing it from the team and knowing that the next step is positive is helpful to the process. Thus, referrals are made quicker, patients transition sooner which can result in better outcomes.

### **BURN:**

The burn unit employs a different type of interdisciplinary rounds. Burn patients tend to have longer hospital stays and continuum of care planning can be complex due to nature of burn wounds. Because of varying schedules and the burn physicians travel schedules; every Tuesday at an agreed upon time, the attending for the burn unit, the nurse practitioner, nurse, the nurse case manager and the social worker have a teleconference to talk about the continuum of care plan for the burn patients. Each conference call is recorded and following the call each discipline documents their specific team plan in the electronic medical record for the appropriate patient. These weekly teleconferences have improved team communication and facilitated interdisciplinary communication around continuum of care planning for the complex burn patients. The direct care nurses are working with each discipline to provide them information on the ongoing status of the patient and perceived needs. When the plan of care is documented, the direct care staffs then work with each discipline to implement the plan.

### **VUH General Care Example**

Rounding on general care floors is challenging as there are so many teams to round with and nurses care for patients on multiple teams. On 6 North, they have managed to cover all the bases.

### **6 North Neurology/Stroke, Neurosurgery and Epilepsy Teams**

The Neurology Stroke team, consisting of the: attending physician, the resident, the medical student, the direct care nurse, the nurse Case Manager and the Stroke Coordinator round on Tuesdays and Thursdays. The Case Managers round with general neurology the other days. Through this combined effort, there are formal walking rounds on 6 North - Monday-Friday for patients/families on the Stroke team. These rounds have been invaluable in ensuring that all members of the team are on the same page. Plans for the day as well as long term

plans and potential barriers are discussed as we seek to move our stroke patients/families effectively along the continuum of care.

Neurosurgery rounds on 6 N patients/families begin every morning at 8:30am. This interdisciplinary team, led by the neurosurgery nurse practitioner includes: Nurse Case Manager, Social Worker, Discharge Planner, direct care nurse and the charge nurse. Therapists are linked in off line. The interdisciplinary team discusses the plan for the day along with disposition plans to move the patient along the continuum of care. Once a month the unit director and the medical director of neurosurgery join in rounds to discuss long term issues and ensure practice is being hard wired.

The other primary group of patients on 6 North are those with epilepsy. Each day, the attending, resident, charge nurse and direct care nurse round to discuss plans of day and long term disposition. As a rule most of these patients do not have complex discharge planning needs.

### **7 Round Wing – Geriatrics**

Charge nurses round with the interdisciplinary Geriatric Team every day and direct care nurses participate when their patients are rounded on. The attending physician, nurse practitioners, PT, OT, dietician, social worker, and sometimes pharmacy and speech therapy participate in the rounds. This is a good forum for the nurses to offer input and request for consults. We also have a weekly discharge planning meeting held every Thursday at 13:00. The same staff mentioned above, participate in the discharge meeting. Here, we discuss every geriatric patient on the team's service regardless of which unit they are admitted. We discuss each patient's plan of care, referrals needed, anticipated discharge needs, and any specific nursing care issues. Also, the Geriatric Nurse Practitioners' office is right here on 7RW so we have almost instant access to the providers as additional needs are discovered.

### **VCH**

### **Examples of Case Management Rounds – ICU**

As a nurse case manager for the Pediatric Intensive Care unit, I have discovered the advantages of rounding with the interdisciplinary team on our patients. The input from all team members is very important and helps us to identify and provide services needed for the patient and family. Members of the team include the attending physician, residents, dietician, pharmacist, social worker, direct care nurse and case manager. Child Life services are also available. Each member of the team has a perspective that is paramount in formulating the big picture for the patient/family. The family is invited to participate in the rounding process. Their

input is often invaluable in helping us to understand and improve our services while providing family centered care.

In addition to the daily PICU rounds, an interdisciplinary team approach occurs each Monday for our trauma patients. This group includes medical professionals from the emergency room where initial contact begins, as well as representatives from the units where these patients are being treated. During this meeting, discussions are held about clinical status, family/social issues, teaching and plan of care so there will be continuity of care and to ensure that all team members are adhering to the plan. This approach has been very effective

Patricia A Lovin, RN, BSN, CCRN  
Pediatric Critical Care  
Nurse Case Manager

### **VCH – Pediatric Orthopaedics**

The Pediatric Case Manager for Orthopaedics follows patients in a variety of areas: ED, PACU, holding room, 3A, 4A, PCCU, 6<sup>th</sup>, 7<sup>th</sup> or 8<sup>th</sup> floor. She may also see a patient in the pediatric orthopaedic clinic, usually in preparation for a surgical procedure and hospitalization. Interaction with the direct care nurses is critical, together they determine needs specific to each patient, specific to each nurse and other providers as indicated. The case manager works with the nurses to develop, revise, update and modify the plan of care for each patient and family as indicated. Because the nursing staff work three 12 hour shifts, the case manager can help to provide continuity for each patient. These interactions also provide opportunities for staff development in a one to one situation as they discuss individual patients.

There are weekly meetings with the Social Worker and Child Life Specialist who are part of the Pediatric Orthopaedic Triad. Cases for the week are discussed and patient's needs are identified. Trauma rounds occur weekly. This interdisciplinary group reviews each patient admitted with trauma, including Non Accidental Trauma, trauma as a result of an MVC, trauma related to falls of all types and any other possible way a child can be injured as a result of trauma. The group reviews and discusses the care and plans for each child.

Every Monday morning there are pre operative planning meeting for scheduled surgical procedures for the week. These planning sessions helps the staff to know the needs of the patients post-operatively. The Case Manager and the nurses can then work with family early in the admission to make arrangements for such things as wheelchairs, home health nursing or PT, outpatient therapy. They can also plan for the care the patient will need after discharge often prior to the surgical procedure. Friday morning conference reviews all the operative cases done that week and those projected for Friday. This closes the loop in regard to care provided and

patient needs met. Discussion around interesting or challenging aspects of patient care, procedures and recovery occurs.

The Case Manager also has the opportunity to interact with some of the children and parents prior to admission. In addition to preparing the child/family for what to expect during the hospital stay, arrangements for homebound school can be made and equipment can be ordered. This also provides the Case Manager the opportunity to share information with the staff when the patient is admitted.

“As a nurse practitioner, there are many aspects of the care I can provide during the day while the surgeons are in the OR and/or clinic. Each morning, I “run the list” with the orthopaedic residents doing their pediatric rotation. We discuss the status of the child, the needs and plans for the day, any questions or concerns and organize the work for the day. I share this information with the nursing staff daily so they are aware of the needs and plans. I meet with the patient and family, assist with the teaching, planning, movement along the plan of care of each patient, trouble shoot/problem solve during the day as well as assess and evaluate patients progress toward their goals both for the day and for the hospitalization.”

Kathy Byington, RN, MSN, APN-FNP  
VUH Case Manager

### **VPH – Challenging Continuum of Care**

Psychiatric Services, as part of their strategic plan and quality pillar goals, charged a group to develop Transition Bundles (standardized checklists). Transition bundles identify key information, to be relayed during transfers and transitions of care across the system. The approach chosen was an intense four day design session that utilized LEAN principles as a construct for rapid process improvement. The process starts at the point of referral, encompasses all stages of hospitalization and ends with referral back to the community.

Evaluation of the current process revealed significant lack of standardization and unreliable procedures, making it difficult to ensure safe and timely transitions/handovers across the system. Examples include lacked of standard process for the following:

- MD sign-out, check-out between resident and attending, on service / off service note
- Inconsistent processes around nurse-nurse hand off from RESPOND
- Limited standards for medical clearance
- Transfers without verbal communication
- Duplicated processes during admissions
- The need to standardize process from triage to unit and attending between 8am and 5pm Variability in resources between the adult and child & adolescent services



- Between Child and Adult Divisions regarding both transfer of patients to VPH from ED or consult services and in the inpatient units regarding process for accepting patients. SBAR without supporting work flow processes still resulted in inconsistency
- MD - MD and RN - RN patient acceptance process. Currently nursing uses tape recorders for shift reports without face to face information exchange
- Reliable physician sign-off process and increasing variation in patient sign-off during morning reports resulting in increased risk and poor quality of discharge summaries
- Communication of treatment plan and disposition plan with patient and family

**Table EP 16 – 1: Participants in the 4 day Design Shop**

<p style="text-align: center;"><b>Team Member Name &amp; Job Role</b></p> <ul style="list-style-type: none"> <li>• Nathaniel Clark, MD</li> <li>• Cathy Fuchs, MD</li> <li>• Amanda Wilson, MD - ED consult</li> <li>• Alric Hawkins, MD - Chief Resident</li> <li>• Mike Fuller, MD - Resident</li> <li>• Avni Cirpili - CNO</li> <li>• Lori Harris, RN - Acting CNO</li> <li>• Johnny Woodard - VPH Manager</li> <li>• Michael Cull, PHD - Manager</li> <li>• Greg Alberico - Dir Respond</li> <li>• Mary Lou Farinaro - Manager</li> <li>• Mathew Cushing - Social work</li> <li>• Nicole Hutchinson - Staff Nurse</li> <li>• Rene Love – Outpatient</li> <li>• Richard Epstein – PHD, MPH</li> <li>• Laurel Roberts - Informatics</li> </ul>	<p style="text-align: center;"><b>Leadership Guidance Team &amp; Job Role</b></p> <ul style="list-style-type: none"> <li>• Stephan Heckers - Chair</li> <li>• Harsh Trivedi - Exec Med Dir. COS</li> <li>• Cathy Fuchs - Div Chief</li> <li>• Neal Patel - CMIO</li> <li>• Jim Jirjis - CMIO</li> <li>• Larry Goldberg - CEO (VUH)</li> <li>• Julie Morath - CQSO</li> <li>• Diane Seloff - Executive Ops.</li> <li>• Bill Parsons - CAO</li> <li>• Marilyn Dubree - Exec. CNO</li> <li>• Anvi Cirpili - VPH CNO</li> <li>• Susan Mosely - Director CCI</li> <li>• Wendy Kiepek - Informatics</li> </ul>
<p style="text-align: center;"><b>Resource Representatives</b></p> <ul style="list-style-type: none"> <li>• Deede Wang</li> <li>• Benjamin Reed</li> <li>• Finance</li> <li>• Informatics</li> <li>• Terrell Smith – Pt. Family Engagement</li> <li>• Rhonda Ashley-Dickson- Business Development</li> </ul>	<p style="text-align: center;"><b>Stakeholders</b></p> <ul style="list-style-type: none"> <li>• Emergency Department</li> <li>• Informatics</li> <li>• Quality &amp; Patient Safety</li> </ul>

<p style="text-align: center;"><b>Administrative Support</b></p> <ul style="list-style-type: none"><li>• Sherron Buchanan</li><li>• Ruth Levitt</li></ul>	<p style="text-align: center;"><b>Measurement Specialists/ Audit Specialists</b></p> <ul style="list-style-type: none"><li>• Martha Newton</li></ul>
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**Work to date:**

Using SBAR principles along with a standardized process definition has supported improved communication between members of the teams. We were able to implement the agreed upon changes related to rounding began July 1/2010. We are currently working to implement other agreements from the design session.

We currently have nine physician teams that have initiated and standardized a new process for both walking rounds and treatment team rounds. These practice changes have resulted in a consistency of staff presence/participation in treatment team as well as patient involvement. Processes have been standardized for these 9 physician teams around treatment teams, handoff communication, and the practice of walking rounds.

**Examples (Complete Patient Records Available On-Site)**

**VUH**

**Challenging Transition from Intensive Care to Acute Care to Home**

Vanderbilt, as an academic medical center receives patient referrals from a broad region of the United States. Frequently, these are complex patients with a multiplicity of needs. Nurses provide care for each patient’s unique and individual needs from the point of entry into our system to the next point in their continuum of care; with a goal to ensure interdisciplinary collaboration across the multiple setting to provide continuity of care. This planning requires the efforts of a diverse team of care givers knowledgeable about a wide variety of clinical/physical/psychosocial problems/issues as well as knowledge of financial and community resources that can support patients/families as they leave Vanderbilt.

Perhaps some of the most challenging patients we care for are those who come to us with complex physical problems and few personal resources to meet their needs. Among the most compelling are those patients who are “undocumented”, without insurance and without a broad network of family/friends to support them. Here is the story of one of our complex patients and how we met the needs of her and her family.

Ms. R is a 51 year old undocumented, Spanish speaking female from Guatemala who was admitted to Vanderbilt with generalized pain, weight loss, muscle weakness and pneumonia in late fall 2009. Ms. R had experienced a decline over several months with her underlying diagnosis of systemic lupus erythematosus. Shortly after her admission, Ms R deteriorated rapidly and had respiratory failure; she was placed on a ventilator and later had trach and peg tubes placed. A clear diagnosis was not determined, but it appeared that she had lupus cerebritis. Ms. R received plasma apheresis, high dose steroids and various other medications/treatments intended to decrease the inflammatory process and reduce the deleterious effects of the cerebritis. For some time it appeared that the treatment was not effective and Ms. R remained in what was termed a vegetative-like state.

Ms. R's family/significant others included 2 sons who spoke limited English, a daughter-in-law who spoke only Spanish and a significant other (live in boyfriend of a several years). Ms. R estranged husband was in Guatemala and she had no relationship with him; however, Ms. R did have several sisters who lived in Guatemala. Our Nurse Case Managers, Sherise Stogner, RN and Diane Dillehay, RN as well as the nurses on 7 Round Wing spent many hours working with Ms. R and her family. This story highlights some of the ways nurses worked with the team to ensure the individual and unique needs of Ms R were considered in making plans for her continuum of care.

Diane, NCM presented Ms. R to the Complex Continuum of Care (COC) Forum [*EP16-Exhibit E-1-Complex Continuum of Care Charter May 2009*] in December, 2009. One of the first needs identified was to have our Vanderbilt attorney initiate getting Ms. R's son designated as the patient's conservator. Planning for next steps began while Ms. R was in the MICU, unresponsive and her long term prospects of recovery looked poor. Initially it appeared Ms. R would remain vent dependent and unresponsive; it appeared unlikely the family could care for Ms R in this state. The team discussed one option of returning Ms R to Guatemala to receive health care needed for a vent dependent person. Her sisters would be there to support her. Vanderbilt was willing to arrange and pay for a fixed wing flight and attendants. Yet, Ms. R's Nashville family was hesitant to see her leave them.

Treatments continued and Ms. R began to respond. She "awoke" from her vegetative state. She was weaned off the vent to a trach collar and moved to 7 Round Wing. While Ms. R had little muscle strength and required total care, it became apparent that Ms. R was moving in right direction toward a recovery. The team learned that Ms. R had been aware of all that she had been through; although she had been unable to respond, she seemed to know what had been happening to her. She was able to begin communicating simple responses by blinking and nodding her head; she progressed to being able to verbalize her needs. Ms. R expressed her own desire to stay in United States with her son and other family. While she had many needs, her resources were at a minimum.

The care planning that was started in the MICU continued on 7 Round Wing. Diane, the interpreter and the nurses met with Ms. R's family to discuss local options. Our local county

nursing facility, Bordeaux, was not an option for post acute care because of her complex case. Ms. R also lived in an adjoining county that did not have a similar. However, since Ms. R had expressed her desire to stay in the U.S., plans were set in motion to find available resources and train her family to provide 24/7 custodial care.

Ms. R's family was willing to provide the care she needed at home. The team realized that one of the family's greatest needs was education on how to care for Ms. R. Her needs included: tube feeds through a peg tube (at discharge, she was only able to eat about 50% of her daily caloric intake), skin care, turning, and toileting. This would involve learning the equipment and supplies.

Two nurses on 7 Round Wing (Patricia Galo-Castellon, RN, who spoke fluent Spanish, and Diane DiCarlo, RN) spent time with Ms.'s R family teaching them. Interpreters were also used. The health care team had to work with the family's work schedules and interpreter's schedules. Even though Ms. R did not need to be in acute care, Vanderbilt kept Ms. R here until nurses and the team felt like the family knew enough to care for her at home. Nurses spent considerable hours teaching family how to provide care for her including: turning and skin care, how to provide safe transfers using slide board, her feeding regime with peg tube, home physical therapy, and medication administration.

Diane, NCM, sought to find as many resources as possible to support the family in their care of Ms R. We wanted the transition to be smooth as she had gone from intensive care to acute care and now to being cared for at home. The handover needed to be solid. Diane found a group called TN Disabilities Pathway; this group is actively working with the R family to provide some additional outpatient resources for Ms. R and family.

Through our Alternative Funding program Vanderbilt rented a wheelchair and purchased a slide board, bedside commode with drop side, wedge pillow (to try to simulate the raised head of hospital bed) and tube feeding for one month. Ms. R's family was put in contact with a nutrition company to help obtain additional tube feeds on charity basis past the first month. Diane also called several larger hospital bed companies to see if they would donate a hospital bed for Ms. R. One company is currently working on trying to provide this resource. Vanderbilt set up an ambulance to take her back to her county and doctors at Vanderbilt will follow up with Ms. R future care.

Ms. R and her family remained intact and are now at home together, having received training and resources to make this transition possible. This was because of a great health care team who considered Ms. R's unique and individual needs when shifting her care to other levels.

Diane Dillehay, RN, BSN, Nurse Case Manager, Medicine  
Sherise Stogner, RN, BBA, Nurse Case Manager, Pulmonary and MICU  
Staff nurses on 7 Round Wing, especially:

- Patricia Galo-Castellon, RN (Spanish speaking nurse)
- Diane Dicarlo, RN

### **Complicated Return Home for Patient**

Mr. B was a 27 year old male with HIV/AIDS, history of disseminated coccidiomycosis and disseminated TB who presented 3/8/09 to VUMC ED with a headache and neck/shoulder pain. He had reoccurrence of neck and cervical spine abscess requiring surgical intervention twice this admission with placement of Halo for cervical spine stabilization. He had recently been treated for TB through Lentz Public Health Clinic. Mr. B was living in a nursing home, and then an apartment during his TB treatment which was paid for by the state of TN. Once TB treatment was completed, he lost housing and was again living on the street.

Multiple healthcare and social problems presented great challenges for the healthcare team when considering options for continued continuity of care for this patient. Other issues included:

- Hospitalization multiple times for treatment of Fungal infections with IV Amphotericin
- Left BKA due to fungal infection in the past and wore a prosthetic leg
- Being Homeless
- Being uninsured
- Emigrated from Mexico several years ago
- Speaks some English but prefers communication in Spanish

Issues early in hospitalization were:

1. Placement for long term IV antifungal treatment for a patient without insurance.
2. High cost of medications for treatment of fungal infection and HIV/AIDS made placement difficult.

PAE completed by Social workers to assist with reimbursement for placement.

3. PAE approved for 6 months of care, referrals made but no facilities willing to accept

4. Presented at Complex Continuum of Care Forum (COC) regarding placement issues and long term care needs.

Two months into his hospitalization, Mr. B indicated that he wanted to return to Mexico. Case discussed at COC with plan to contact Mexican Consulate in Atlanta, GA to establish a plan for Mr. B to return to Mexico.

The Case Manager, Leslie Reese, RN, utilized interpreter services to communicate with Mr. B and a map of Mexico to learn the location of his family and to find a clinic in that area. She talked to Drs. McGowan and Dominique Allen at the CCC regarding assistance in locating HIV clinic in Mexico near his family and to contact family. Dr McGowan contacted one of her colleagues' in Mexico City caring for HIV patients. This clinic was willing to provide medical care but was more than an 8 hour trip from Mr. B's home. The next closest clinic was in Acapulco which is only 4 hours from his home.

The process was then started with the Mexican Consulate to get Mr. B back to Mexico. Mr. B would not be able to travel until his Halo was removed. There were multiple conversations with The Mexican Consulate, Dominique, Mr. B and his family in order to coordinate completion of necessary paperwork and documentation for Mr. B to travel by plane back to Mexico.

Leslie worked with a case manager from Nashville Cares (Nashville based HIV/AIDS Organization) and got assistance with clothing, food and money for Mr. B's travel back to Mexico. Another local agency Comprehensive Care Center provided a 30 day supply of all discharge medications.

During this time, Leslie was working with the nurses on 8 North and 8 South Medical and then 3 Round Wing as they provided his care and worked to restore Mr. B to his highest level of health possible. "The direct care nurses helped me identify what his level of functioning would be and what he would need. They did an awesome job of making sure he did not develop any other problems and that we maintained the continuity that we had created", said Leslie.

We discussed at the COC patient conference, the challenging issue of transportation upon discharge. Medical escort arranged to insure patient had transportation to Atlanta to catch flight and arrive safely with any medical needs being addressed during travel to Mexico. Mr. B was successfully discharged home to Mexico and his family's care.

The coordination of this patient's care and subsequent return to Mexico was complicated. Continuity was critical for this patient to have a successful transition to care in

another country. Leslie acted as the coordinator/manager of the interdisciplinary team working with the direct care staff to facilitate communication and patient/family education.

**VCH**

### **Continuity Challenges Overcome with Assistance**

I had been working with a patient for several months who was a previously healthy 6 year old who had been diagnosed with optic neuritis. Outpatient PT was recommended, however the mother said she was waiting for TNCare status to be approved (TN Medicare Health Insurance). I had concerns about the continuity of care for this child with no identified outpatient connection/follow-up. We have given the mother instructions for basic PT while here in the hospital, however I was unsure if it was being done and if there was progress. I called a few times to see how they were doing at home and inquire about insurance. Each time the mother indicated they were doing fine and the child was improving, but still no word on funding approval.

The patient was then readmitted this time with transverse myelitis. The patient had profound lower body weakness and needed intense physical therapy. At this hospitalization, it had been determined that the patient would not be eligible for TNCare due to her citizenship status. The physical therapists were recommending inpatient rehabilitation; however, no facility would consider the case due to the citizenship status. The therapy department here then brought to my attention that they sometimes will provide care for these patients. I went through the process and provided her information to the appropriate representative. She determined that she was indeed eligible for 100% coverage for her outpatient therapy needs.

That was good news; however, the patient still needed some equipment like a wheelchair and rolling walker. The mother did not have the money to pay for these and no company would provide them without payment. One of the therapists here told me about a place in Nashville that recycles donated equipment to indigent families. I called the United CP of Middle TN and talked with a gentleman who confirmed that they indeed had the needed equipment in stock. The patient's mother was able to take the items home that day.

Another member of our interdisciplinary team, the social worker, also worked to secure services for this child after hospitalization. Children's Special Services were able to cover various outpatient needs. The child's follow-up care would be provided by a free / sliding scale pediatric clinic in Nashville. The patient received all the needed medical equipment as well as services she required with no expense to the family.

I am proud to say that I work in a facility that does not base care on citizenship status. A child is a child no matter where they were born. It is wonderful to know that Vanderbilt and its surrounding community has a big heart, open arms, and genuine compassion for those that are less fortunate

**Sherri Walker—Case Manager**

**VCH - 8 B**

**Complex Patient with Uncommon Presentation Recovers**

DJ came to us from an outside hospital with the diagnosis of altered mental status and her condition deteriorated rapidly when she arrived. Her care eventually led to the need for a large interdisciplinary team across several areas; including psych, general pediatrics, respiratory therapy, Child Life Services, physical therapy and more. The attending physician made the diagnosis of teratoma of the ovary, rare in a 14 year old. She went to surgery the evening of her arrival to remove the tumor that was releasing toxins to her brain.

At this point she had a tracheostomy and G-Tube and was in a catatonic state. For the next 4-5 weeks she was in acute care and was taken to VCH OR for ECT treatments three days a week for a total of 12 treatments. Careful handovers were critical in this process to ensure that all members of the healthcare team were aware of where DJ was on her continuum toward wellness. We were concerned about providing care for a 14 year old who was getting so many ECT treatments.

Dr. Hain was the attending physician from the General Pediatrics team who diagnosed the patient. He was crucial in working with the nurses to coordinate her plan of care to provide continuity over many services. This patient had two primary nurses on the unit, Michelle Freeman and Kathryn Floen, who cared for the patient consistently. Tiffany Maupin, CP, was critical in providing consistent care to the patient. Mimi Arthur was also pivotal in this patient's care. Sara, Child Life Therapy, provided distraction and sensory tools to help the patient cope even when she was in a catatonic state. She was crucial as the patient began to come out of this state because she helped the DJ and her mother find sensory tools to speed her recovery. The patient began to dance before she could speak again and her first words were song lyrics that had been playing on the I-Pod Child Life provided her to help her cope during the ECT therapy treatments.

Her outcome was excellent and DJ walked/danced her way out of the hospital walking and talking with no residual effects of the treatment. She has no memory of the entire event and recently came back to visit the people who took care of her on a field trip to Nashville to



visit colleges. Only through the coordinated efforts of an interdisciplinary team working across several continuums was DJ able to make this recovery.

### **Vanderbilt Psychiatric Hospital begins continuity of care plans upon admission**

To bring early continuity for patients being admitted to VPH, the team determined that all admissions within a 24 hour period would be clinically reviewed. The nurses in Respond (admission) developed the form used to capture pertinent data. This form serves as a starting tool for patient review and care planning. Meetings are held each morning to review admissions from the last 24 hours.

Many benefits have been seen from this plan which ultimately supports improved patient outcomes. The interdisciplinary team has information prior to seeing the patient and can begin to formulate the treatment plan. This can help patients who might not be able to have anxiety at repeating information and prevents the physicians from having to anticipate and work through complex situations. [*EP16-Exhibit F-1-VPH Morning Report Form*]

## **Clinics**

### **Structuring a Clinic to Facilitate Interdisciplinary Collaboration Across the Continuum of Care**

The Vanderbilt MS Clinic is a regional referral center for patients with Multiple Sclerosis. Previously the clinic was in a small out of the way location where patients were seen by their physicians and their infusions were given. A decision was made to move both the MS Clinic and our outpatient Infusion Center (previously in the on campus clinic area) to our new clinic facility at One Hundred Oaks (OHO).

To provide for continuity of care for the Multiple Sclerosis patients who would now be receiving treatment via IV infusions in the Infusions Clinic; when the clinics moved to OHO, they were placed side-by-side. The multiple hallways connecting the two clinics, has provided improved continuity of care for patients by providing for easier communication between the clinic provider team and the infusion staff. If the patients have problems, the physician provider is close. When the Infusion nursing staff need clarification of orders or have questions, the team is close. This move has improved the continuity of the patients during their treatment, which also translates to better outcomes.

### **A Change in Interdisciplinary Care Planning Improves Patient Continuity in the Children's Outpatient Hemophilia Clinic**

In the United States, there is a network of over 140 federally funded hemophilia treatment centers. These treatment centers receive funding from both Centers for Disease Control and Maternal & Child Health Bureau for providing comprehensive care to patients with bleeding disorders. Research has shown that patients who receive care at a hemophilia treatment center have decreased complications and a lower mortality rate than those that receive care elsewhere (Souice, 2001).

The Vanderbilt Hemostasis-Thrombosis Clinic is a federally and state funded Hemophilia Treatment Center. Our team includes our physicians, nurse manager, clinical nurse, research nurse, social worker, physical therapist, genetics counselor, and pharmacist. We have several other ancillary staff that do not see patients on a regular basis. Most bleeding disorder patients are seen annually for their comprehensive visit. During this visit, the patient is generally seen by all providers.

Our previous process of communication within the clinic involved a weekly team meeting. This format was fast-paced and physician driven and did not provide adequate time for in-depth discussion, goal setting and follow-up. This meeting involved the physician, all nurses, the social worker, pharmacist, and data manager. Unfortunately, the physical therapist and genetics counselor were unable to attend the meeting due to time conflicts. Issues were discussed, but often there were no resolutions or follow up plan. Occasionally, patient issues were over looked or forgotten.

We knew we needed a better way to structure team communication, set goals for patients, and improve follow through. The continuity we needed and wanted for our patients could be strengthened. For our team, the hope was that by improving provider communication, increasing provider follow through, and setting goals and follow up plans for patients that we would have improved patient outcomes and decreased complications from bleeding disorders.

After several planning meetings, we implemented a new care plan meeting in January 2009. Meetings occur weekly with the nurses, social worker, pharmacist, and data manager. At each meeting, patient follow up goals are made. Each provider takes ownership for the follow-up goals they are responsible for completing each week. Improved tracking systems were developed to monitor and track progress of completion of follow up goals. Data was collected and analyzed on short-term follow up goal completion rates. The data showed nearly a 20% increase in completion of follow up goals when comparing results from 2008 and 2009.

Improved tracking tools which have improved documentation, meeting flow and follow-up include:

- Individual patient notes page
- Care Plan Meeting Notebook
- Care Planning Meeting List

Due to these positive results, we have integrated the care plan meeting into the weekly team meeting to decrease the amount of meeting time and to allow physician involvement in care planning. We will continue to evaluate the effectiveness of this new method of addressing patient care planning for continuity. Patients have expressed an increased satisfaction with their clinic visits and follow-up. This improved communication with patients has helped them understand that we, the providers, are committed to providing them with quality health care and improved quality of life.

This important work will be shared with other hemophilia nurses within our region (KY, TN, SC, NC) during the annual meeting in 2010. [*EP16-Exhibit G-1-Using Care Plan Meetings Presentation*]

**Table EP 16 – 2: Participants**

Mary G. Hudson RN,	Hemostasis/Hemophilia Coordinator/Assistant Manager
Chasity Mullins, RN, BSN	Hemostasis/Hemophilia Clinic Nurse
Julie B. Thomas, RN, BSN	Hemostasis/Hemophilia /Research Nurse
Mavis Harrop, LCSW	Hemostasis/Hemophilia Social Worker
Johnna Oleis, D.Ph	Hemostasis/Hemophilia Pharmacist
Betsy Wilson	Hemostasis/Hemophilia Data Manager
Anne T. Neff, M.D.	Asst. Professor/Medical Dir. Hemophilia Clinic/Hematology/Stem Cell

**Clinic Relocation will Enhance Access and Continuity of Care for Pediatric Otolaryngology Patients**

The Pediatric Otolaryngology Clinic has moved from Medical Center East to the 7<sup>th</sup> Floor of the Children’s Doctor’s Office Tower. This provides increased access for these patients and supports improved continuity. In this new location, Pediatric Otolaryngology, Audiology, and

Speech Pathology will see patients with a team approach. Communication and patient care planning will be enhanced with all of these team members in one location. [*EP16-Exhibit H-1-Pediatric Otolaryngology move to new space*]

### **Easier Transition and Improved Continuity for Sickle Cell Clinic Patients**

Lesley Ann Owen, MSN, RN and Dr. Elizabeth Yang follow 260 patients in the pediatric Sickle Cell Clinic with over 700 clinic visits each year. This team provides comprehensive care and education to patients and families.

For the patients ages 4-15, the focus is on receiving proper treatment and following prevention guidelines. Once patients turn 16 they begin in an innovative new aspect of the clinic's care – the transition clinic. Special seminars and group discussions prepare the teens to transfer to adult care, be responsible for their own health and not lose the continuity of care they have been maintaining.

History has shown that this type of transition has been challenging for the teens and continuity of care is lost. Additionally, many of the children fall out of the system at that point.

The transition clinic was initiated with the help of Laura Winslow, RN, FNP and Adetola Kassim, M.D., from the adult sickle cell clinic. One of the sessions includes a tour of the adult clinic and a meeting with Dr. Kassim, so the teens will be more comfortable transferring their care. Lesley now runs the transition program with participation from several other disciplines. The curriculum includes managing disease complications, insurance, job training, safe sex, and genetic counseling. [*EP16-Exhibit I-1-SickleCell Clinic adds new programs*]

### **Electronic Continuum of Care**

We have a large number of clinics in Williamson County (Vanderbilt Medical Group (VMG) Williamson). Those patients may choose to receive care at the local hospital, Williamson Medical Center, when hospital services are required. Hospital services could include a visit to the Emergency Department, outpatient surgery center or an inpatient hospitalization. Our goal is to provide the patient with the same high quality of care over the continuum as patients move from Vanderbilt primary care to specialty care clinics into a non-Vanderbilt hospital and then back to the Vanderbilt clinic for follow-up and continued care.

To achieve this goal, the hospitalists at Williamson Medical Center have been granted access to Start Panel, so patient records at Vanderbilt can be accessed. A direct interface with Williamson Medical Center also exists. Therefore, all documentation generated during any patient encounter at Williamson Medical Center crosses to StarPanel.

All privacy and legal issues were addressed and the information technology staffs of both organizations worked to make this happen. Response from both patients and physicians has been overwhelmingly positive. The end result is an integrated system that ultimately supports continuity of patient care.