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Unit Staffing Collaborative Non-Invasive Cardiology

2/11/21

VERMONT FEDERATION OF NURSES & HEALTH PROFESSIONALS

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Timeline

- The USC Project plan must be completed and submitted to the Chief Nursing Officer of the Hospital and President the VFNHP within three (3) months of completion of project **(Inpatient: 1/31/2021; Ambulatory: 2/15/21).** The manager will make reasonable time available for the committee to work on the written plan. Staffing plans developed under this Article 20B shall require approval by both the Chief Nursing Officer of the Hospital and President of the VFNHP. A decision on the memorandum of agreement shall be made within three (3) months of the submission of the final report **(3/15/21)**. A failure to reject the plan or provide specific reasons for the rejection by either party within three (3) months of submission shall be considered acceptance. Where a final USC Project plan is rejected in good faith by either party, the USC committee shall reconvene and submit a new final report within three (3) months. Either party may initiate mediation following the rejection of a report.

Components of USC Project Plan

- Unit/clinic profile: define patient population
- Minimum staffing levels
- Average Daily Census
- Staff turnover/vacancy
- Required annual certifications and new employee orientation: how incorporated into staffing plans?
- Analysis of time spent by nurses on nursing and non-nursing activities
- Analysis and recommendation of acuity process and/or tool
- Analysis and determination for Circulating RN(s) to enable Circulating RN(s) to facilitate meal/break coverage and assist in transfers/discharges in all critical, procedural and acute care units
- Staffing effectiveness data (see Article 20), including unit specific quality data and NDNQI RN satisfaction and Practice Environment results
- Clinic/Unit-specific quality data, including unit-based improvement initiatives
- Staffing data, including the unit budget
- Financial impact of the proposal
- Metrics to be used to measure the effectiveness of the USC Project

Unit/ Clinic USC Members

- Arianna Nelson- Stress Lab Nurse
- Christie Parker-Stress Lab Nurse
- Michelle Murley- Stress Lab Nurse
- Patricia Salimi- Care Coordinator
- Kelly Hanley- Nurse Manager of Noninvasive Cardiology

Meeting Dates

- 10/22/20
- 10/30/20
- 11/3/20
- 1/20/21

Unit Profile

Profile-Patient Population:

•Patients from across Central and Northern Vermont and upper New York state with Cardiology issues that include the need for non-invasive stress testing and TEE procedures. Patients are cared for from across the network to have further study of cardiac issues referred from clinic for CHF, Structural Heart , or other heart disease, or that present with NSTEMI to UVMMC or our referring hospitals to include Porter, NMC, CVH, CVCA, and Copley. We also see patients from a wider range of referring hospitals to include Rutland, CVPH, and other upper NY state sites.

Scope of Service:

•The stress lab nurses work 9 hours per day. The cardiology stress lab performs testing at the Main Campus and the Tilley Campus. Testing includes Nuclear Medicine Spects, Nuclear Medicine Positron Emission Tomography, Exercise Stress Echocardiograms, Dobutamine Stress Echocardiograms, Exercise Tolerance tests, and Transesophageal Echocardiograms. A protocol nurse, will review all non-invasive orders from all practitioners and determine the right test for the right patient.

Orientation/Certifications

- Orientation is 12 weeks in the stress lab
  - New staff learn the different testing modalities and different sites
  - New staff have 2 primary preceptors
- Orientation is extended into the echo department to learn Transesophageal echocardiograms and Dobutamine stress echocardiograms
- Last week of orientation will take place in the Protocol role
- Employees are required to maintain competency and become recertified every 2 years for BLS and ACLS
  - Certification includes demonstration of BLS and ACLS skills as well as the online course. BLS and ACLS are offered each spring for half of the staff on a yearly rotating basis. Time for certification work is provided during working hours and is supported during low census time. Nurses will complete demonstrations during downtime, to not interfere with patient care.
- Employees are required to complete annual hospital and non-invasive hospital competencies
- Employees are required to maintain and demonstrate competency in Point of Care testing

Minimum Staffing Levels

- Minimum staffing currently: 1 Charge nurse, 1 person of the day (Mpod), 1 PET nurse, 1 TEE nurse, 1 Stress Echo nurse, 1 outpatient Nuclear Medicine (OPCn) nurse, 1 Regular ETT (OPCr) nurse, and 1 Protocol nurse.
- If staff is out due to illness or call out, the charge nurse will step in as needed.
- The unit also has its own full-time Care Coordinator
  - Duties include those of an Assistant Nurse Manager

Time Spent on Nursing vs Non-Nursing Duties

- The nursing duties in the stress lab include:
  - This is a nurse-run lab, meaning nurses independently perform cardiovascular stress tests (including those induced by exercise or by intravenous pharmacological stimulation) under supervision of the cardiologist and assess statuses of patients presenting for these tests
    - Testing can run from 0730 to 1500, with a break for lunch
  - Insertion of peripheral IVs
  - Administration of sedation and monitoring of patients during conscious sedation
  - Patient education
  - Follow all appropriate protocols
  - Unit secretary duties

Time Spent on Nursing vs Non-Nursing Duties

- The non-nursing duties in the stress lab include:
  - Stock rooms/carts (1 hour/day)
  - Room turn over in between patients (1 hour/day)
  - Transport patients to expedite workflow and/or transport is unavailable
  - Support unit administrative assistants in answering all med-tech questions, including EKGs and Holters
  - Provide EKG, arrhythmia, and patient safety teaching to cardiology techs

Analysis/ Recommendation of Acuity Tool/Process

University of Vermont Medical Center
cc# 12011446 - Cardiology Non Invasive
Labor Target Analysis

Major Work Category	Benchmark Indicator	Data Period Volume	Annualized Volume FY 2019	Benchmark Paid Hours per Indicator Low	High	Benchmark Required FTEs Low	High
Stress Tests	Stress Test Procedures	597	2,388				
Holter Monitors (RN Workload)	Holter Procedures	267	1,068				
Cardiac Event Monitor	Procedures	1,790	7,160				
Echocardiograms	Echo Prodecures	5,305	21,220				
Stress Echos & Bike Stress Echos	Stress Echo Procedures	209	838				
Dobutamine Stress Echos	Procedures		44				
TEE's	Procedures	165	660				
NM Cardiac Spect & Stress Spect	Procedures		973				
NM Cardio PET Viability	Procedures		5				
NM Nuclear Stress PET/CT Pharm	Procedures		302				
NM Stress and Rest Spect Bariatric Stress	Procedures		1				
Protocol All Procedures (Except EKGs)	Procedures		34,659				
Care Coordination & Patient Education	Procedures		34,659				
Additional Workload/Functions							
Ongoing RN project work	# Weeks		52	3.00 -	5.00	0.08 -	0.13
Non-productive time adjustment	# Weeks	3.6%	52	7.11 -	8.63	0.18 -	0.22
Total Paid Hour Benchmark	***Procedures***		***34,659***	***0.397 -***	***0.466***	***6.62 -***	***7.77***
Total Worked Hour Benchmark	***Procedures***		***34,659***	***0.342 -***	***0.402***	***5.70 -***	***6.70***

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Analysis for Charge Nurse

- The primary function of the Charge Nurse is to continually round of all areas of the department and assist as needed
- Works with the administrative assistants to schedule urgent add-ons
- Calls all patients with pre-procedure information 2 days prior to testing and completes Covid-19 screening
- Completes the unit initiative each day and notifies ordering providers of any abnormal tests

Analysis for Care Coordinator

- Builds Nursing schedule for Noninvasive Nurses
- Handles call-outs and daily operational changes for both nursing staff and non nursing staff
- Assists with onboarding of new employees
- Aids in Epic wave 1, and continues to be involved with Epic remediation
- QA audit checks on procedures
- Correction and edits on procedures for billing
- Fills in as staff for call outs
- Assists with Kronos corrections

Analysis of QA Nurse

- Creates quarterly report for the Diagnostic Executive Committee to review critical values, and testing turnaround times
- Manages the Image Guide Nuclear Medicine Registry. All information is requires manual data entry
- Addends nuclear reports to add pertinent information in order to meet billing requirements
- Provides regional data {NWC, CVMC (uses vericis)} for Dr. Keating to conduct Nuclear Stress QA meeting. Also runs report out of epic, and creates spreadsheet to combine reports

QA Nurse Continued

- TAVR coordination- assists with follow up with registry forms. Updates spreadsheet, and tracks who shows up for appointments
- LAAO program. Conducts registry 45, 6 month, 1 year, and 2 year follow up

The above is considered Non-Nursing functions. There is a plan to shift this work to a 0.5 scheduler to support the LAAO and TAVR registry

Staffing Effectiveness Data

- NPG- Trish, Michelle, Kelly
- CARP- Michelle, Christie
- Master's degree- Jane, Ari & Kelly currently enrolled in program

Turn Over 5 years:

- 2016: 1 staff (1 internal transfer)
- 2017: 1 staff (1 internal transfer)
- 2018: 1 staff (1 internal transfer, 1 transferred out)
- 2019: 1 staff (1 Out of state hired, 1 per diem added)
- 2020: 1 nurse transferred OOS,1 per diem retired

Staffing Effectiveness Data-Continued

CARP (Clinical Advancement Recognition Program):

•The nurses in the Noninvasive department are not included in the CARP model. This position is highly specialized and provides an opportunity to practice at higher levels than that of a Staff Nurse II, (e.g. Stress Nurse run lab). However, there is not a formal way for our nurses to be recognized for their excellence in clinical care, leadership, and quality improvement initiatives. This has the potential to increase staff satisfaction due to both the recognition and the increased wages related to advancing on the ladder.

NDNQI Staff Satisfaction Data 2019

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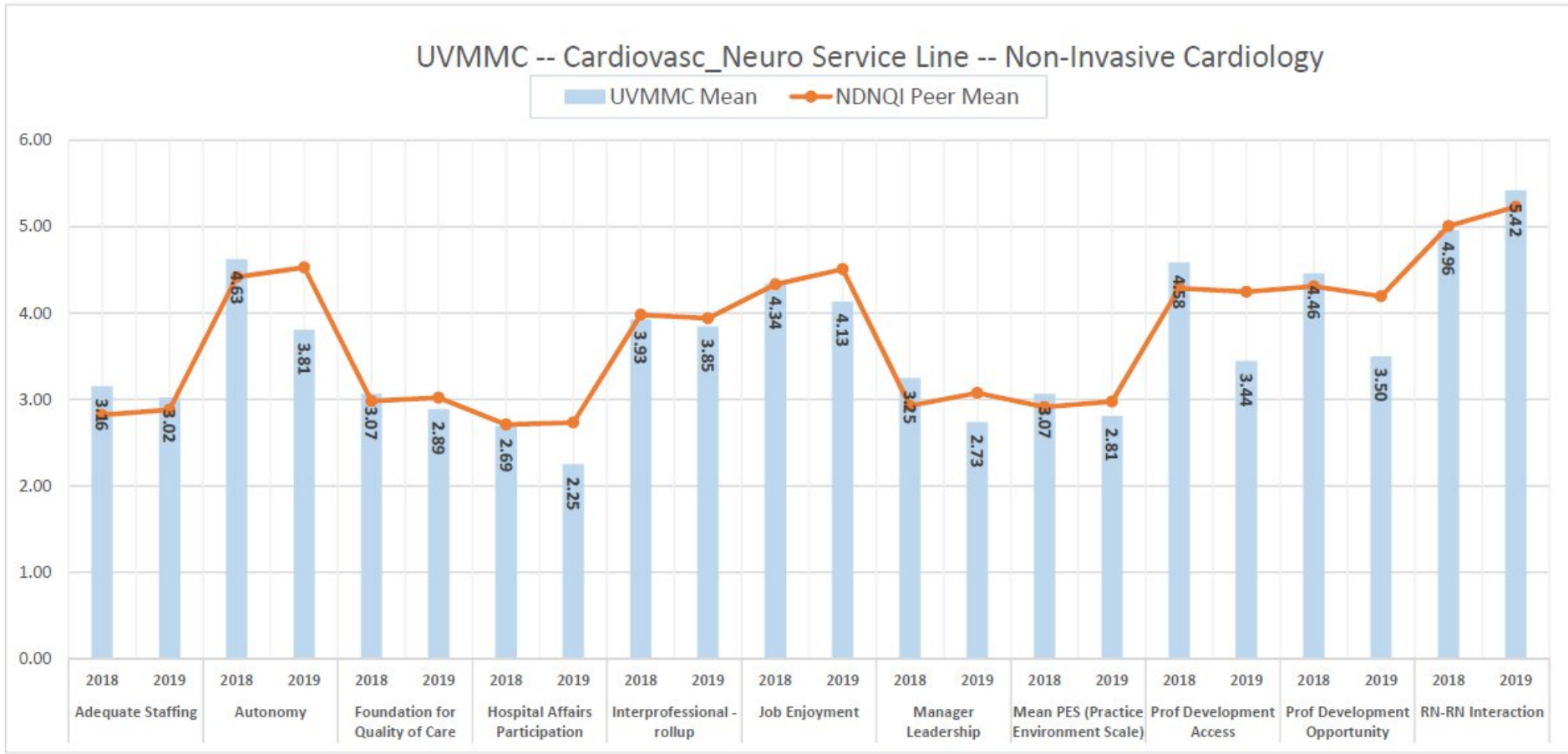
NDNQI 2019 RN Survey Analysis



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Unit/ Clinic Specific Quality Data

- Time out audit data- Non-Invasive Cardiology continues to be 100% compliant with performing Time Out prior to TEE procedures
- Mallampati- Recent data highlights that Noninvasive's Mallampati scores have fallen below Joint Commission Standards. Nursing team is working with Regulatory on a plan of correction that will involve an interprofessional collaboration with physicians.

Staffing Plan including Ancillary Staff

- Current staffing plan:
  - 1 Nurse Manager
  - 1 Care Coordinator
  - 1 Charge nurse, 1 person of the day (Mpod), 1 PET nurse, 1 TEE nurse, 1 Stress Echo nurse, 1 outpatient Nuclear Medicine nurse, 1 outpatient regular ETT nurse, 1 Protocol nurse
  - 1 QA Nurse to support Nuclear Medicine/Stress data for Cardiology registries (e.g. ASNC Image Guide, NCDR, etc.), and identify quality improvement opportunities.
  - 1 Imaging tech
    - 1 cardiology tech is assigned to each modality, except for TEE and Protocol

Staffing Data including Unit Budget

STAFFING SUMMARY
Cost Center #12011446
Cardiology Non-Invasive

34,659 Procedures

Skill	Actual Paid FTEs	Current Pattern FTEs	Target Pattern FTEs	Variance Current-Target
RN	8.39	8.39	8.39	0.00
Grand Total	**8.39**	**8.39**	**8.39**	**0.00**

Current Staffing Grid

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Current & Example of a Target Staffing Pattern
Cardiology Non Invasive
Cost Center# 12011446

Average Daily Procedure:	133.3
Maximum Capacity:	0
Annualized Procedures:	34,659

Skill	Description	Shift Length (hours)	Number of Staff							Total Weekly Shifts	Total Weekly Req. Hrs w/o repl	Req. FTEs w/o replace	Replacement Factor	Total Paid Hours	Total Paid FTEs
		A	Mon	Tue	Wed	Thur	Fri	Sat	Sun	B	C=AxB		D	E=CxD	F=E/40
			Days												
Stress Lab RN	7:00am - 3:30pm	8.0	2.0	2.0	2.0	2.0	2.0			10.0	80.0	2.0	1.050	84	2.1
Staff RN	7:00am - 3:30pm	8.0	6.0	6.0	6.0	6.0	6.0			30.0	240.0	6.0	1.050	252	6.3
										40.0	320.0	8.0		336	8.4

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Financial Impact of the Proposal

- No financial impact as no new staffing model is proposed

Metrics to Measure the Effectiveness of the USC Project Plan

- NDNQI data
- Utilization of Per Diem RNs
- Cancelled lunch in Kronos
- Average OT per pay period
- Unit Based Council
- Dedicated Noninvasive Nurse/ Unit staffing collaborative meetings to evaluate if staffing model is successful

Highlighted Changes

- Stress Lab Nurses will transition to Staff II Nurses to align with CARP
- This will be completed by the end of March, 2021
- Update- All Stress Lab Nurses have been transitioned to Staff II Nurses to align with CARP model

Time line and Deliverables

- Check in/progress update - schedule call with P. Gagne and D. Snell by **October 15, 2020**

- Final plans submission deadline:
  - **INPATIENT UNITS: November 20, 2020**
  - **AMBULATORY CLINICS: December 1, 2020**

- Submit to: CNO and President VFNHP
  - Scan as 1 document and email to Peg.Gagne@uvmhealth.org and debs@vfnhp.org

Approval Letter

Dear Non-Invasive Cardiology USC Team,
Thank you very much for your engagement and efforts in the Unit Staffing Collaborative (USC) project. We wanted to let you know that your project plan with the continuation of your current staffing plan and transition to SN IIs from Stress Lab Nurses is approved. If you have any questions about the USC project approvals, please let us know.
Going forward, your USC team is responsible for the implementation and ongoing monitoring of the effectiveness and progress of your staffing plans, review of any Concern Forms and submission of proposed changes/ reports to the Staffing Committee (see Article 20B).
If you have not already done so, please incorporate any updates made based on our feedback into your original presentation (some of you attached a separate letter with the answers to our request for more information – everything should be included in one powerpoint presentation which the Staffing Committee will be using as the foundation for this work going forward). Add the attached approval slide at the end of the presentation and resubmit to us by 5/17/2021.
Regards,
Peg and Deb

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Deb Snell, RN *President VFNHP* Debs@vfnhp.org