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Unit Staffing Collaborative
Shep 4 Infusion

January 15, 2021

Updated: March 8, 2021

VERMONT FEDERATION OF NURSES & HEALTH PROFESSIONALS

THE University of Vermont MEDICAL CENTER

Unit/ Clinic USC Members

- Bethany Palmer, RN
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- Leslie Twitchell, RN
- Jean Freeman, RN
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Components of USC Project Plan Per Article 20B

- Unit profile
- Minimum staffing levels
- 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
- Unit-specific quality data, including unit-based improvement initiatives
- Staffing plan (grid)
- Staffing data, including the unit budget
- Financial impact of the proposal
- Metrics to be used to measure the effectiveness of the USC Project

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: 11/20/2020; Ambulatory: 1/15/2020).** 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 **(2/22/21)**. 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.

Unit Profile

- Transfusions, injections, infusions, hydrations, PICC/PORT/Access care, Stim testing with timed lab draws and therapeutic phlebotomy
- No chemotherapy for oncology patients
- Oncology patients may receive non-chemotherapy drugs/infusions/transfusions/hydration, immunotherapy, chemo pump offs, and port de-accessing
- Patients 18 and older
  - Patients 14-17 will be considered on a case-by-case bases via discussion with charge nurse

Meeting Dates

- 9/11/20- Kick off meeting
- 9/22/20
- 10/9/20
- 10/20/20
- 12/4/20
- 12/15/20
- 1/5/21
- 1/12/21
- 3/2/21
- 3/5/21
- 5/11/21

Minimum Staffing Levels

- What are your core RN staffing levels?
  - M-F: 7-8 RNs per day includes charge RN and RN IV time (15 chairs open, 3-6 flex chairs)
  - M-F 79 hours of direct nursing hours (including charge RN and RN IV time)
  - Weekend/Holiday: 2 RNs (4 chairs)
- Minimum number of RNs needed:
  - 3:1 RN to Patient Ratio Plus one Charge RN (3:1 staffing pattern aligns with both Applied Management Systems (AMS) and Labor Management Institute (LMI) benchmark data
  - In the complex clinical setting of oncology (infusion) "nurse leaders should utilize benchmarking data to ensure staffing levels are appropriate" (Rodriguez et al., 2020).
  - Staffing Example- If 6 RNS are scheduled on unit at 9:00 am, then the maximum number of patients that can be started at 9:00 am is 6 (Rodriguez et al., 2020). The number of discharges would also need to be considered.
- Address tactics to flex staffing up and down (i.e., sister sites, floating, per diems, resources
  - Sister site with floats:
    - Heme/Onc/Miller 5/ IV team/Baird 7
  - Per diems: 6 RNs
  - Float RNs from Heme/Onc (2) with potential for more

Time Spent on Nursing vs Non-Nursing Duties

- What is the *approximate* time per week spent on non-nursing functions?
  - Average 10-15mins per patient per day including: (avg 35 patients/day) 6-8.75 hours/day
  - Tallied up list of non-nursing activities throughout day
- What non-nursing functions are consistently assigned to RNs?
  - Computer entries for: Check-in/out (before and after PSS arrival and departure) weekends performing more of these duties, Transport for patient pick up, Lab p/u, Blood product p/u, Printing chart slips
  - Providing food and drinks
  - Day scheduling changes
  - Housekeeping: Room turnover (bed/chair, dinamap, waste baskets, bathroom, & tables cleaning and making them up, full med waste bin disposal removal/replace
  - Stocking rooms and blanket warmer
  - Supply room maintenance and special orders
  - **Charge RN answering phone and non- clinical triage of where calls go** (possible need for unit secretary)
  - Calling patients to confirm appointments in order for medications to be released and prepared prior to arrival
- Is there a recommendation on who could do the work?
  - Unit Secretary/PSS
  - MA
  - Environmental Services
- What activities do not require RNs or prevent RNs from doing core RN work (i.e., RNs can perform rooming function, but does it keep RNs from staffing triage calls)
  - All the above
- Discuss what is needed to have RNs working to top of license
  - Removal of the non-nursing functions from nursing staff on this unit or additional staff members to take on the above non-nursing functions
  - Reallocating time spent on non-nursing activities (6-8.75 hours/day) to non-clinical staff will allow the patient facing nurses to spend more time delivering direct patient care

Recommendation for Acuity Process

Factors influencing acuity:

- >40 patients on the unit, High turnover
- Blood transfusion, Stim tests, New starts with education, More reactive medications (Rituxan, IVIG, etc.), Lemtrada, Full care patients, training new staff, sensory loss, difficult IV placements, therapeutic phlebotomy, psycho-social complex patients needing additional time/TLC
- Work Triggers: Medication Reaction/ New onset fevers (COVID)/Blood transfusion reaction/MET calls for acute medication reactions and non-medication related (falls)/Direct Admits to the hospital/Late arriving patients/prolonged infusions, Difficult IV placements, no orders or clarification orders
- Requiring more nursing support: new populations (i.e. Esketamine), clinical research medications, nursing education for new medications, ongoing education on practice and policy changes within the organization, non-nursing role requirements (RN III/RN IV time-meetings, committees), unforeseen illness of staff members (COVID), unforeseen illness of patient (sicker, unable to get medication, care coordination for other things going on with patient, need to see PCP, or other specialist, get more labs, have more treatments, etc.)

Acuity is reviewed and determined by Charge RN and patient to nurse ratio is adjusted accordingly

- Charge Role: Checking orders in advance of patient's scheduled appointment, (often taking more than one attempt by multiple charge nurses), following up on missing orders or clarifying existing orders, calling provider offices and/or their clinical nurse re orders/labs/patient plan of care/add-on patients, triaging calls, managing assignments, provider follow-ups, collaborating with schedulers (urgent add-ons) assisting on unit with IV starts/patient assessment/triage/room turnover, acting as a unit resource

Analysis for Future RN FTE

- Considerations for the future as infusion center grows:
  Assessing the need for Future RN FTE (i.e. Nurse circulator, additional evening RNs, additional weekend RN)

- Co charge/triage nurse for daily orders chart review/follow up (for at least partial day during clinical hours)or as unit resource/float to assist when needed
  - We will create on-call shifts for weekend and holiday coverage (call-outs and increased censes needs) in accordance with our flexible staffing pattern in response to increase patient volume.
  - According to Rodriguez et al. (2020), flexible staffing patterns allow for staffing to increase or decrease based on patient volume, ratio of licensed and unlicensed staff, procedures, and patient conditions. The tool that will be utilized will be the LMI
  - Develop an acuity-based tool with the goal of providing consistent staffing, improved efficiency, reduced overtime, and improved patient and staff satisfaction (Vortherms et al., 2015).

Staffing Data including Unit Budget

- FY21 Budgeted RN FTEs
  - 10.6 RN FTE's

Dept ID as of 9/21/20/20	Dept Name	Name	Job	Primary Job	Budget FY21	Scheduled Hours per Pay Period 9/21/20	FTE as of 9/21/20
1481	Infusion Center	Lorie Marriott	NURSES	Yes	1.00	72.00	0.90
1481	Infusion Center	Dianna Jo Palmer	NURSES	Yes	1.00	80.00	1.00
1481	Infusion Center	Danielle Alexander	NURSES	Yes	UC Transfer	40.00	0.50
1481	Infusion Center	Mary Flemmingdavis	NURSES	No		0.00	0.00
1481	Infusion Center	Marie Anestopoulos	NURSES	Yes	0.90	72.00	0.90
1481	Infusion Center	Samira Lawson	NURSES	No		0.00	0.00
1481	Infusion Center	Colleen Roach	NURSES	Yes	0.80	64.00	0.80
1481	Infusion Center	Stephanie Rettew	NURSES	Yes	0.90	72.00	0.90
1481	Infusion Center	Karen Carlin	NURSES	Yes	Neuro Transfer	72.00	0.90
1481	Infusion Center	Darcy Mazlish	NURSES	Yes		0.00	0.00
1481	Infusion Center	Brenda Godfrey	NURSES	Yes	Rheum Transfer	72.00	0.90
1481	Infusion Center	Brianna Johnson	NURSES	Yes	0.50	40.00	
1481	Infusion Center	Karen Legere	NURSES	Yes		40.00	0.50
1481	Infusion Center	Leslie Twitchell	NURSES	Yes	VP Approval	72.00	0.90
1481	Infusion Center	Sharon Stafford	NURSES	Yes	VP Approval	72.00	0.90
1481	Infusion Center	Iri Sunj	NURSES	Yes	VP Approval	40.00	0.50
1481	Infusion Center	Michelle Young	NURSES	Yes	VP Approval	40.00	0.50
1481	Infusion Center	Jean Freeman	NURSES	Yes	VP Approval	40.00	0.50
1481	Infusion Center	Milton Rosa-Ortiz	NURSES	No	VP Approval	0.00	0.00
1481	Infusion Center	Emily Glassman	NURSES	Yes	VP Approval	0.00	0.00
1481	Infusion Center	Kari Antonucci	NURSES	No	VP Approval	0.00	0.00
				Nursing Only	5.10		10.60
				NM	1.00		1.00
				MA	1.00	VP Approval	2.50
				PSS	2.00	VP Approval	3.00
				Total Budget FY21	9.10		17.10

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AMS Benchmark Staffing Grid

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Current & Example of a Target Staffing Pattern

Ambulatory Infusion Center

Cost Center: 12011481

																	Visits	4,432	
																	Average per Day	18	
		Shift Length	Number of Staff							Total Weekly	Total Weekly Req. Hrs	Req. FTEs w/o	SVH Replace	Total Paid	Total Paid	Hours per Indicator	
Skill	Description	(hours)	Mon	Tue	Wed	Thur	Fri	Sat	Sun	Shifts	w/o repl	replace	Ratio	Hours	FTEs	Worked	Paid
		A								B	C=AxB		D	E=CxD	F=E/40		
		RN															
Nurse Manager	6:30am - 3:00pm	8.0	1.0	1.0	1.0	1.0	1.0			5.0	40.0	1.0	1.000	40	1.00	0.4693	0.4693
Charge RN	6:30am - 3:00pm	8.0	1.0	1.0	1.0	1.0	1.0			5.0	40.0	1.0	1.120	45	1.12	0.4693	0.5256
RN	6:30am - 3:00pm	8.0	1.0	1.0	1.0	1.0	1.0			5.0	40.0	1.0	1.120	45	1.12	0.4693	0.5256
RN	7:30am - 8:00pm	12.0	2.0	2.0	1.0	2.0	1.0			8.0	96.0	2.4	1.120	108	2.69	1.1264	1.2615
RN	7:30am 0 4:00pm	8.0			1.0					1.0	8.0	0.2	1.120	9	0.22	0.0939	0.1051
RN	11:30am - 8:00pm	8.0			1.0		1.0			2.0	16.0	0.4	1.120	18	0.45	0.1877	0.2103
RN IV Admin	6:30am - 3:00pm	8.0	0.5	0.5	0.5	0.5	0.5			2.5	20.0	0.5	1.000	20	0.50	0.2347	0.2347
Nsg. Supv. Med. Grp.	6:30am - 3:00pm	8.0	0.5	0.5	0.5	0.5	0.5			2.5	20.0	0.5	1.000	20	0.50	0.2347	0.2347
Medical Asst.	6:30am - 3:00pm	8.0	1.0	1.0	1.0	1.0	1.0			5.0	40.0	1.0	1.000	40	1.00	0.4693	0.4693
Clerical	6:30am - 3:00pm	8.0	1.5	1.5	1.5	1.5	1.5			7.5	60.0	1.5	1.080	65	1.62	0.7040	0.7603
									Pattern Total	43.5	380.0	9.5	1.076	409	10.22	4.458	4.796

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Labor Management Index (LMI) Benchmark

Below demonstrates how LMI can be utilized to respond to, and project, direct care staffing needs based on total number of patient visits (UOS). Shep 4 has been working within a LMI Hours/Infusion benchmark of 3.0-2.5.

Staffing Gauge													
# of RN Care Hours	16	16	16	24	64	64	64	64	72	72	72	72	72
# of Charge Nurse Hours					12	12	12	12	12	20	20	20	20
#of Suppot Staff Hours	8	8	8	8	16	16	16	24	24	24	24	24	24
# of Total Diecrt Care Hours	24	24	24	32	92	92	92	100	108	116	116	116	116
# of Infusions	8	9	10	12	30	35	36	40	41	45	48	50	55
Care Hours per Infusion	3.00	2.67	2.40	2.67	3.07	2.63	2.56	2.50	2.63	2.58	2.42	2.32	2.11
LMI Hours/Infusion Benchmark	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	With Current Weekend Staffing Pattern				With Current Weekday Staffing Pattern			With Proposed MA FTE Increase	With Proposed MA and 1FTE RN Increase	With Proposed MA and 2 FTE RN			

According to Rodriguez et al. (2020), flexible staffing patterns allow for staffing to increase or decrease based on patient volume, ratio of licensed and unlicensed staff, procedures, and patient conditions. Shep 4 has been utilizing LMI as a tool to guide staffing adjustments.

Data points for LMI

- RN Staff as Percent of Direct Care Staff
- Direct RN, Total Direct, Indirect and Total Worked Hours per Unit of Service (H/UOS)
  - Hours (H) = Total Direct Care Hours (Charge RN, Direct Care RNs & MA)
  - UOS (UOS) =Total Number of Patient Visits (Infusions/injections/procedures/transfusions) per day(Labor Management Institute, 2020)

Current Staffing Pattern/Schedule

- Year to date actual at job code level
  - How is this different from budget and if different, why?
    - Centralization of infusions (Rheum and Neuro)
    - Addition of Urgent Care and Heme/Onc infusions due to COVID
    - Staff hired based on average daily volume (exceeded 5 year growth plan)
  - How is this different from AMS benchmark staffing grid and if different, why?
    - Aligned with AMS and LMI benchmarks
- How do you staff M-F (weekends if applicable)?
  - See staffing schedule on next slide
- What is your current staffing pattern?
  - See staffing schedule on next slide
- How will scheduled and unscheduled CTO and unproductive time will be covered?
  - Currently able to accommodate with current staffing pattern

Metrics to Measure the Effectiveness of the USC Project Plan

- How will you know staffing levels are effective?
  - Optimize throughput and efficiency (i.e., reduction in room downtime)
  - RNs working to top of license
  - MA- staff to patient ratio will be 6:1 vs current of 8:1 to 9:1
    - Full coverage during unit operational hours
    - 2 MA during peak hours 7-1530
    - 1 MA 11-1930
  - All MA duties completed by MA or Unit Secretary (Previously completed by RN or Charge RN)
    - Patient check-in/out (before and after PSS arrival and departure) weekends performing more of these duties, Transport for pt. p/u, Lab p/u, Blood product p/u, Printing chart slips for add-on patients, Med/Allergy reconciliation, Rooming patients with completed VS, Stocking patient bays, Provide patient nutritional needs including those required by total care patients, Maintaining clean supplies and updating PAR levels, Maintaining equipment logs and requesting needed replacement parts (TSP)
  - Unit Secretary:
    - Triage incoming phone calls, secretary will do initial screening and direct caller to appropriate staff, Entering in service task requests- labs/transportation/blood pick-up, Chart slips, HEMS, Unit supply orders (Hot orders, WB Mason, Premiere Connect), Confirming patient's arrival and check-in for med release, Paging providers for nursing
  - EVS (RN and MA no longer performing EVS related tasks)
    - Ability to maintain standards for clean patient spaces, 14 patient bathrooms, 1 staff bathroom , Waiting room, Kitchen, Maintaining hallway cleanliness, Room turnover (Average 30-35 patients per day)
      - Bed/chair (clean and re-dress), Dinamap, Waste baskets, Bathroom, Tables cleaning, Full med waste bin disposal removal/replace, Restock blanket warmer and room linen

Metrics to Measure the Effectiveness of the USC Project Plan (cont.)

- Suggestions to consider monitoring:
  - Press Ganey metric specific to nursing
    - Start sending surveys out 1st quarter of calendar year
  - Create own survey to send to patients
    - Scheduling, cleanliness of space, friendliness of staff, etc.
  - Ambulatory Sensitive Indicators- Collaborative Alliance for Nursing Outcomes (AAACN, 2016)

CALNOC Ambulatory Measures: Surgery Centers, Procedure Units, Cancer Centers

Structure	Process	Outcomes
Volume • Number of patient onsite visits (denominator) • Number of procedures **Staff Hours per Volume and % mix** • RN; LVN/LPN; APN • Unlicensed Assistants • Other licensed professional staff (PT, OT, RD, MSW, LCSW, etc) • Staff Turnover **RN Education & Certification** • Education Levels and Certification Rates (staff and nursing management) • International recruitment • N Years of Experience • N Years in Area of Specialization	**Throughput** • Number (%) of no-shows, late cancellations • Operating room minutes for ASC **Medication Administration Safety Processes – Percent of Doses:** • Charted immed after Admin • Compared with MAR • Distracted/Interrupted • Explained to Patient • Labeled Throughout Process • Two Forms of ID Checked	**Adverse Events** • Wrong: Site, Side, Patient, Procedure, Implant • Patient Burns • Patient Falls • Patient Injury Falls • Hospital Transfer/ Admission **Medication Administration Safety Outcomes – Percent of Doses:** • No Errors • Drug Not Available Error • Extra Dose Error • Omission Error • Unauthorized Drug Error • Wrong Dose, Form, Route, Technique, Time Errors
• Stratified by hospital based or free standing; predominately adult, pediatric or all ages • Benchmarking Report Groups available for specialty subpopulations (e.g., Orthopedic Centers, CVIC, NCI Cancer Centers, etc.)		

  - NDNQI metric
    - Maintain scores over the next 2 years
    - RN Satisfaction
    - Autonomy
  - Utilization of premium pay/OT
  - Utilization of per diems
  - Utilization of resource pool
  - Growth in revenue on weekends
- This assessment will be ongoing beyond initial recommendation
- Develop an acuity-based tool with the goal of providing consistent staffing, improved efficiency, reduced overtim[illegible]proved patient and staff satisfaction (Vortherms et al., 2015).

Current Staffing Pattern/Schedule

	Week 1							Week 2							Week 3							Week 4						
Staff	Monday	Tuesday	Wednesda	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesda	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesda	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesda	Thursday	Friday	Saturday	Sunday
LM (0.9)	630-1600	630-1600	X	630-1600	630-1600	X	X	X	630-1600	630-1600	630-1600	630-1600	X	X	630-1600	630-1600	X	630-1600	630-1600	X	X	X	630-1600	630-1600	630-1600	630-1600	X	X
DP (1.0)	630-1500	630-1500 RN IV TIME	630-1500	630-1500	630-1500	X	X	630-1700	630-1700	630-1700	630-1700	X	X	X	630-1500	630-1500 RN IV TIME	630-1500	630-1500	630-1500	X	X	630-1700	630-1700	630-1700	630-1700	X	X	X
MA (0.9)	7-1930	7-1930	7-1930	X	X	X	X	X	X	7-1930	7-1930	7-1930	X	X	7-1930	07-1930	7-1930	X	X	X	X	X	X	7-1930	7-1930	7-1930	X	X
CR (0.8)	7-1930	7-1530	07-1930	X	X	X	X	0630-1900	0630-1900	07-1530 RN IV TIME	X	X	X	X	7-1930	07-1530	0630-1900	X	X	X	X	630-1900	630-1900	07-1530 RN IV TIME	X	X	X	X
SR (0.9)	7-1930	7-1930	630-1500	X	X	X	X	07-1530	07-1530 RN IV TIME	630-1900	630-1900	X	X	X	X	X	07-1930	07-1930	07-1530	X	X	07-1530	07-1530 RN IV TIME 1530-1930	630-1900	630-1500	X	X	X
BG (0.9)	7-1930	X	7-1930	7-1930	X	X	X	07-1930	7-1930	X	X	07-1930	X	X	7-1930	X	7-1930	7-1930	X	X	X	X	7-1930	7-1930	X	7-1930	X	X
KC (0.9)	X	7-1930	X	7-1930	7-1930	X	X	7-1930	X	07-1930	7-1930	X	X	X	07-1930	7-1930	X	X	07-1930	X	X	7-1930	X	07-1930	7-1930	X	X	X
KL (0.5)	X	X	X	X	X	7-1530	7-1530	07-1530	X	X	X	X	7-1530	7-1530	X	07-1530	10-1830	X	X	X	X	X	X	X	X	07-1530	7-1530	7-1530
DA (0.5)	10-1830	10-1830	X	X	X	X	X	10-1830	10-1830	X	X	10-1830	X	X	10-1830	10-1830	X	X	X	X	X	10-1830	10-1830	X	X	10-1830	X	X
LT (0.9)	X	7-1930	10-1830	07-1930	X	X	X	7-1930	7-1930	10-1830	10-1830	X	X	X	X	X	X	07-1930	07-1930	7-1530	7-1530	X	X	07-1930	10-1830	07-1930	X	X
MY (0.5)	X	X	X	X	07-1930	7-1530	7-1530	X	7-1930	X	X	X	X	X	X	X	X	7-1530	7-1930	X	X	07-1930	07-1530	X	X	X	X	X
JF (0.5)	X	X	X	10-1830	10-1830	X	X	X	X	X	X	07-1530	07-1530	07-1530	X	X	07-1530	10-1830	10-1830	X	X	07-1530	07-1530	X	X	X	X	X
															X	X	X	X										
IS (0.5)	X	X	X	07-1530	07-1930	X	X	X	X	X	07-1530	07-1930	X	X	X	X	X	X	7-1100	7-1530	7-1530	X	X	X	07-1930	07-1530	X	X
SS (0.9)	X	X	07-1930	07-1530	07-1930	X	X	X	07-1530	07-1530	07-1930	0630-1900	X	X	X	07-1930	07-1530	07-1930	X	X	X	X	X	X	07-1930	0630-1900	7-1530	7-1530

	Week 1							Week 2							Week 3							Week 4						
Staff	Monday	Tuesday	Wednesda	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesda	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesda	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesda	Thursday	Friday	Saturday	Sunday
OPENERS	2	2	2	2	2			2	2	2	2	2			2	2	2	2	2			2	2	2	2	2		
CLOSERS	5	5	5	4	5			5	5	4	5	5			4	4	5	5	4			4	4	5	5	5		
TOTAL	7	7	7	8	7			8	8	7	8	7			7	7	8	8	8			7	7	7	8	8		
Nursing hours need to run 21 chairs	*8*	*8*	*8*	*4*	*8*	*8*	*8*			*12*		*8*	*8*	*8*	*12*	*12*			*4*	*8*	*8*	*12*	*12*	*8*			*8*	*8*

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Proposed Staffing Pattern/Schedule

- Please add proposed RN staffing and staffing pattern
  - Unit Secretary- located at charge nurse desk- 1.0 FTE
  - Medical Assistant- 1.0 FTE
  - EVS- Allocation of EVS support, following the CVU/Peri-op model, during operating hours of Shep 4, and not limited to end of day terminal cleaning
  - Anticipated future asks:
    - On call system for weekends and holidays
    - RN's- 1.25 FTE (RN FTE request based on future growth)
      - 21 chairs Monday through Friday and 6 chairs Sat/Sun
- Address differences from current staffing pattern/schedule and AMS benchmark (if applicable)
  - Our current staffing pattern is in alignment with both AMS and LMI benchmark data.
  - Additional MA and secretarial support, along with appropriate EVS coverage will allow for Shep 4 RNs to function at the top of their license and ensure that "the assignment of the right people to the right task, to the right time and to the right place" occurs (Bowie et al., 2019, p. 1-2).
  - Based on predicted volumes and increased acuity of patients (expansion of scope of service due to study patients, Esketamine, and others) we will need an additional 1.25 RN FTE's to support the number of chairs that will be open on a regular basis. This increase in FTE will keep us aligned with the LMI benchmark as our volumes and acuity of patients increase over time.

Financial Impact of the Proposal

Current needs:

1. Staffing out of our budget
   - EVS (urgent)
2. Staffing in our budget
   - MA
   - Secretary (PSS)

Future needs:

3. 1.25 RN FTE's as new programs start
   - Based on expansion of scope of service, which will increase the # of chairs

Staff Nurse - II Rate	41.00
Hours (1.25 FTE's)	100.00
ppp	4,100.00
Annual	106,600.00
Fringe	33,802.86
Total	**140,401.86**

Medical Assistant - I Rate	16.67
Hours (1.0 FTE's)	80.00
ppp	1,333.60
Annual	34,673.60
Fringe	10,994.00
Total	**45,668.60**

EVS- II Rate	16.40
Hours (1.0 FTE's)	80.00
ppp	1,312.00
Annual	34,112.00
Fringe	10,816.91
Total	**44,828.91**

Secretary Rate	18.52
Hours (1.0 FTE's)	80.00
ppp	1,481.60
Annual	38,521.60
Fringe	12,215.20
Total	**50,736.80**

Annual Fringe rate for FY21- 31.71 %

Highlighted Changes

- The addition of non-licensed support staff (1 FTE MA/1 FTE Secretary/EVS) will allow nursing staff to function not only at the top of their license, but also to optimize unit efficiency while improving staff and patient satisfaction.
- The USC will continue to meet monthly to assess effectiveness of proposed changes as well as to continue to assess for nursing sensitive indicators and utilize a flexible staffing model
- The continued utilization of a flexible staffing pattern, development of an acuity tool, and assessment of our alignment with ambulatory nursing sensitive indicators, we will be able to determine that our operational structure and nursing process outcomes are trending towards improvement and full optimization (Start et al., 2018)

Priority order

Current needs:

1. Staffing out our budget:
    - EVS (urgent)
2. Staffing in our budget:
    - MA
    - Secretary (PSS)

Future needs (based on expansion of scope of service, which will increase the # of chairs)

3. 1.25 RN's as new programs start

References

AAACN. (2016). *CALNOC Ambulatory Service Lines and Measures.* https://www.aaacn.org/sites/default/files/documents/misc-docs/CALNOCAmbulatoryBrochure.pdf

Labor Management Institute. (2020). *Infusion Center Units.*

Rodriguez, A. L., Jackson, H. J., Cloud, R., Morris, K., & Stansel, C. C. (2020). Oncology nursing considerations when developing outpatient staffing and acuity models. *Seminars in Oncology Nursing, 36,* 1-6. https://doi.org/10.1016/j.soncn.2020.151018

Start, R., Matlock, A. M., Aronow, H., Brown, D., & Soban, L. (2018). Realizing momentum and synergy: Benchmarking meaningful ambulatory care nurse-sensitive indicators. *Nursing Economics, 36*(5), 246 251. https://link.gale.com/apps/doc/A559355997/HRCA?u=txshracd2597&sid=HRCA&xid=765e3e9b

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Timeline and Deliverables

- Check in/progress update - schedule call with P. Gagne and D. Snell by **January 15, 2021**
- Final plans submission deadline:
  - **INPATIENT UNITS: November 20, 2020**
  - **AMBULATORY CLINICS: January 15, 2021**

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

Response to Peg/Deb

- Staff Effectiveness/ Quality Data-
  - Adequate staff to get the job done- USC FTE request (1 MA FTE/ 1 PSS FTE/ EVS support)

  - NDNQI data from 2019 to 2020 survey results identified a decrease in having adequate support staff to get the job done. This decrease in RN satisfaction indicates our current need for additional MA, secretary (PSS) and EVS support. The additional support staff FTE is an ***immediate*** request as we anticipate that the 2021 NDNQI results will again decrease without the additional FTE. Please refer to slide 8, 15 and 18.

Blood Transfusion nursing hours: ***

- # Blood products (platelets, PRBCs, plasma) on Shep 4: 1291
- Total blood products in hospital: 2415. We do 53% of the hospitals blood products
- 58% of total hospital PRBCs
- 78% of hospitals Platelets

*****Data received from the Pathology and Laboratory Medicine Dept. UVMMC**

Response to Peg/Deb (continued)

- Current Blood Product Administration policy requires the RN to stay at the bedside with the patient for the first 20 minutes to monitor for acute reactions. This accounts for 430 hours of nursing time spent at the patient's bedside away from other nursing tasks for the year 2020, increasing the need for additional MA support for the floor. A predictive staffing model (LMI) speaks to the need to have "the assignment of right people to the right task, to the right time and the right place", according to Drake (as cited in Bowie et al., 2019, p144-145). Literature review of acuity based staffing models in the ambulatory setting, consistently rates blood product administration as a high level of acuity, 4-out-of-5 on a 1-5 acuity scale. The maximum number of points per patient is 5 (Vortherms et al., 2015). Increased transfusion patients will contribute to the need to adjust daily staffing patterns.

- As of January 21, 2021 Shep 4 completed phase 1 of infusion scheduling optimization. This involved taking on the responsibility of directly scheduling all patient services on Shep 4. An additional PSS staff member was hired in the fall of 2020 anticipating the increased patient call volume. What was not anticipated was that our PSS staff member who runs the check-in desk would have few opportunities to assist with scheduling. As nurse manager, Bethany Palmer, has been assisting with daily patient scheduling. Scheduling infusion patients is a "complex process driven by a need to focus on safety while accommodating a high degree of variability" (Huang et al., 2018, p. e82). In order to maintain a high-level of patient, provider, and Shep 4 staff satisfaction we are requesting an additional PSS/secretary FTE ***prior to FY22***.

Response to Peg/Deb (continued)

B. NDNQI data from 2019 to 2020 results identified that adequate RN staff to get the job done increased in all three metrics. Based on predicted volumes and increased acuity of patients (expansion of scope of service due to study patients, Esketamine, and others) we will need an additional RN FTE's to support the number of chairs that will be open on a regular basis. We currently have three transfusion next/day of add-on chairs that are routinely prebooked with non-transfusion patients. We anticipate needing to open the remaining two unstaffed chairs as same-day add-ons, in order to continue safely accommodating transfusion patients and to support HEME-ONC service expansion on Shep 4. Rapid Rituximab, Zometa, Pamidronate, Prolastin, Neupogen, Solaris, Darbopeitin and weekend chemo pump-offs have been added to Shep 4 during the fall of 2020. The ***future*** increase in nursing FTEs will keep us alligned with the LMI benchmark as our volumes and acuity of patients increases over time (see below). In addition to average daily patient volume and number of open chairs, we would monitor the need to adjust hours of operation (weekend staffing).

Labor Management Institute

	Current Weekend Staffing Pattern			*** Projected Weekend Staffing Pattern	Current Daily Avg. # of Infusions & Weekeday Staffing Pattern	With Proposed MA FTE Increase	* With Additional MA and 1FTE RN	** With Additiona IMA and 2 RN FTE
# RN Direct Care Hours	16	16	16	24	76	76	84	92
# Suppot Staff Direct Care Hours	8	8	8	8	16	24	24	24
# Total Diecrt Care Hours	24	24	24	32	92	100	108	116
# of Infusions	8	9	10	12	35	35	41	45
Care Hours per Infusion	3.00	2.67	2.40	2.67	2.63	2.86	2.63	2.58
LMI Hours/Infusion Benchmark (2.5-3.0)	2.5-3.0	2.5-3.0	2.5-3.0	2.5-3.0	2.5-3.0	2.5-3.0	2.5-3.0	2.5-3.0

* Additional RN FTE when daily # of infusions is sustained at ≥ 40
** Additional RN FTE when daily # of infusions is sustained at ≥ 45
*** RN Staffing will need to be adjusted when daily # of infusions is sustained on the weekends ≥ 11

- As a benchmark, LMI care hours per infusion is between 2.5 and 3.0 (Community/Teaching Hospital Infusion Centers). Shep 4 adjusts direct care staffing (RN/MA) when average daily censes causes our care hours per infusions to fall below 2.5. According to EPIC our current average care hours per infusion (chair time) is 2.8, within the LMI benchmark.
  - Press Ganey- The process has been started to include Shep 4 Infusion in receiving Press Ganey survey information. We are working with Shaun Akin, Patient & Family Experience Partner, to obtain this information.
  - MyChart Response Rate- Working with EPIC to have Shep 4 Infusion activated as a location enabling patients to communicate directly with Shep 4 (DMND 0129128).

Response to Peg/Deb (continued)

- Recommendations-
  - Provide financial comparison to AMS recommendations and to FY21 budget:
- Original FY21 budget (9.1 FTEs) was revised due to the centralization of infusion nursing FTEs (acquiring neuro, rhematology, infectious disease and fanny allen infusion centers) and VP approved FTE additions due to increased volume of patients (exceeded projected 5 year growth in 1 year). Current Adjusted FTEs are 17.1 FTEs.

- FY21 before Adjustment:

Division	Cost Center	FY21 Budget		AMS Recommendation		Difference Between FY21 Budget & AMS		Proposed		Difference Between FY21 Budget & Proposed		Difference Between AMS & Proposed		Summary Comments
		FTE's	Salaries	FTE's	Salaries	FTE's	Salaries	FTE's	Salaries	FTE's	Salaries	FTE's	Salaries	
Example	2201	5.2	$ 15,000.00	5.6	$ 25,000.00	0.4	$ 10,000.00	5.3	$15,500.00	0.1	$ 500.00	-0.3	$ (9,500.00)	
2025 CEO Administration	1481	9.1	$733,846.00	9.1	$733,846.00	0	$ -	2	$96,404.80	-7.1	$(637,441.20)	-7.1	$(637,441.20)	Adjusted FY21 Budgeted FTE equals 17.1 d/t centralization of infusion nursing FTEs and VP approved FTE additions. AMS recommendations based on an FY19 annual volume of 4,432 visits. Adjusted volume 9/1/19-8/31/20 equaled 8,513 visits. Proposing 1 Medical Assistant and 1 Secretary.

- FY21 after Adjustment:

Adjusted FY21 budget- 17.1 FTE

- Budgeted monthly salary expenditure =147,826.45 (Approx.)
- Budget 12-month salary expenditure=1,773,917.46 (Approx.)

Workload Volume Indicator: Infusions Center Visits

FY'19 Actual Annual Volume: 4432

Adjusted volumes Sept 1, 2019 through August 31, 2020: 8513

- Based on our adjusted infusion center volume of 8513 patient visits, AMS benchmark analysis, indicates a need of 16.6 to 17.76 FTEs.
- AMS:

AMS Labor Benchmark analysis:

Infusion Center Annualized Adjusted Volume, 8513 patient visits

Benchmark Paid Hours per Indicator

Low 8,513 x 4.06 = 34,562.78/2080 = 16.6 FTEs

High 8,513 x 4.38 = 36,946.42/2080 = 17.76 FTEs

THE University of Vermont MEDICAL CENTER

Response to Peg/Deb (continued)

Provide a proposed timeline for implementation for your recommendations

- Medical Assistant (1 FTE) – immediate
- Patient Support Specialist (1 FTE) – Prior to FY22
- RN (0.625) – FY22
- RN (0.625) – future (censes driven)

References:

Bowie, D., Fischer, R., & Holland, M. L. (2019). Development and implementation of a forecasting model for inpatient nurse scheduling. *Nursing Economics*, *37*(3), 144–156. https://link-gale-com.ezproxy.uta.edu

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Project Plan Approval

May 3, 2021

Dear Shep 4 Infusions USC Team,

Thank you very much for your engagement and efforts in the Unit Staffing Collaborative (USC) project. We are pleased to let you know that your project plan with additional staffing as indicated below has been approved for FY 22. If there is an urgent need for the FTE addition prior to FY 22 (10/1/2021), please follow the position review/ approval process with your leadership team:

- 1.0 FTE MA
- 1.0 FTE PSS
- 0.625 FTE RN

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).

Regards,
Peg and Deb

Meeting 5/11/21

- Agenda/Minutes:

Agenda: 5/11/21 0700-0800

- Review USC report back
- Discuss weekends/ review on-call language in contract
- Plan timeline for position recruitment
- Discuss RN III work time

Minutes:

- Reviewed position request form for the PSS and MA roles- Bethany to send out position request form for USC members to fill out
- Steph to continue to create a weekly staffing report each week on Thursdays to track potential needs for the next week. Bethany will track final census and staffing.
- RNIVs and RN IIIs to track time spent not on direct patient care. Hope is to create a template to track this work weekly. Bethany to send out email with directions to RNIV and RN III staff
- Discussed the need to create a Unit based Acuity tool that looks at individual days as a whole as compared to looking at each individual patient.
- Dianna to look at Safe staffing report and start submitting these for data on days that we feel we have staffing needs that were not met. This will help to collect data. Benefit is that everyone can submit it.
- Will set aside time for RN III for next schedule 4-hour blocks.
- Steph to update the USC power point

Parking lot items:

- Discuss weekends/Review on call language

Meeting 5/11/21

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* Additional RN FTE when daily # of infusions is sustained at ≥ 40

** Additional RN FTE when daily # of infusions is sustained at ≥ 45

*** RN Staffing will need to be adjusted when daily # of infusions is sustained on the weekends ≥ 11

4/30/2021 (Predicted)	
# RN Direct Care Hours	76
# Suppot Staff Direct Care Hours	24
# Total Diecrt Care Hours	100
# of Infusions	47
Care Hours per Infusion	2.13
LMI Hours/Infusion Benchmark (2.5-3.0)	2.5-3.0

4/30/2021 (Actual)		Notes
# RN Direct Care Hours	89	8 hrs. at premium pay
# Suppot Staff Direct Care Hours	24	8 hrs. upstaffed MA (Sally)
# Total Diecrt Care Hours	113	
# of Infusions	47	
Care Hours per Infusion	2.40	
LMI Hours/Infusion Benchmark (2.5-3.0)	2.5-3.0	

Infusion Center Acuity tool	Examples
Multiple drugs	
New biotherapy	
Packed red blood cells	
Platelets	
Additional lab draws	
Patient specific	• Interpreter • O2 dependency • Patient from long-term care facility • Trachestomy • Mental health issues • Aged 85 years + • Hx of difficult PIV stick

5/11/21

Palmer, Bethany | Marriott, Lorie A.; Twitchell, Leslie; Palmer, Dianna Jo; Rettew, Stephanie; Roach, Colleen | 12:40 PM

RN III and RN IV committee/project/administrative time

Happy Tuesday and a continued Happy Nurse's Week! Thank you all for everything you do to support one another and the entire unit.

The USC met this morning, and in our continued effort to monitor staffing needs as it relates to patient safety, patient/staff satisfaction and the growth and development of the unit, we need your help.

At the end of each pay period please submit a list of all RN III or IV work started, continued or completed during the previous 2-weeks. This does not need to be detailed. For example:

- Pod Cast- 4 hrs Prep/interview
- NPG service line council meeting- 2 hrs.
- Emails sent/responded to x,y,z about 1,2,3,- 2 hrs.
- Met with Bethany to discuss infusion in-service needs, plan made- 0.5 hrs.
- USC meeting- 1 hr.
- ..... you get the idea ☺

This information will be added to all the other data that is being collected to support future staffing plans.

On behalf of the USC, thank you,
Bethany