Seattle Children's Hospital Nurse Staffing Plan

## **Cover Page**

The following is the nurse staffing plan for Seattle Children's Hospital, submitted to the Washington State Department of Health in accordance with Revised Code of Washington 70.41.420.

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#### **Attestation Form**

House-wide Nurse Staffing Committee

December 22, 2022

I, the undersigned with responsibility for Seattle Children's Hospital, attest that the attached staffing plan and matrix was developed in accordance with RCW 70.41.420 for 2020 and includes all units covered under our hospital license under RCW 70.41. This plan was developed with consideration given to the following elements:

Census, including total numbers of patients on the unit on each shift and activity such as patient discharges, admissions, and transfers;
Level of intensity of all patients and nature of the care to be delivered on each shift;
Skill mix;
Level of experience and specialty certification or training of nursing personnel providing care;
The need for specialized or intensive equipment;
The architecture and geography of the patient care unit, including but not limited to placement of patient rooms, treatment areas, nursing stations, medication preparation areas, and equipment;
Staffing guidelines adopted or published by national nursing professional associations, specialty nursing organizations, and other health professional organizations;
Availability of other personnel supporting nursing services on the patient care unit; and
Strategies to enable registered nurses to take meal and rest breaks as required by law or the terms of an applicable collective bargaining agreement, if any, between the hospital and a representative of the nursing staff.

This staffing plan was adopted by the hospital on: 12/22/2022

As approved by:

(signature)

Name and Title

Jest Sperring, MD
Title CEO

## **Nurse Staffing Plan Purpose**

This plan was developed for the management of scheduling and provision of daily staffing needs for the hospital, and to define a process that ensures the availability of qualified nursing staff to provide safe, reliable and effective care to our patients. This plan applies to all parts of the hospital licensed under RCW 70.41.

## **Nurse Staffing Plan Principles**

- Access to high-quality nursing staff is critical to providing patients safe, reliable, equitable, and effective care.
- The optimal staffing plan represents a partnership between nursing leadership and direct nursing care staff.
- Staffing is multifaceted and dynamic. The development of the plan must consider a wide range of variables.
- Data and measurable nurse sensitive indicators should help inform the staffing plan.

## **Nurse Staffing Plan Policy**

- The nurse staffing committee is responsible for the development and oversight of the nurse staffing plan to ensure the availability of qualified nursing staff to provide safe, reliable and effective care to our patients.
- The committee's work is guided by its charter.
- The committee meets on a regular basis as determined by the committee's charter.
- The committee's work is informed by information and data from individual patient care units. Appropriate staffing levels for a patient care unit reflect an analysis of:
  - Individual and aggregate patient needs;
  - o Staffing guidelines developed for specific specialty areas;
  - The skills and training of the nursing staff;
  - Resources and supports for nurses;
  - Anticipated absences and need for nursing staff to take meal and rest breaks;
  - Hospital data and outcomes from relevant quality indicators; and
  - o Hospital finances.

<sup>\*</sup>These principles correspond to *The American Nursing Association Principles of Safe Staffing*.

#### Seattle Children's Hospital Nurse Staffing Plan

\*The American Nurses Association does not recommend a specific staffing ratio, but rather to make care assignments based on acuity, patient needs and staff competencies.

- The analysis of the above information is aggregated into the hospital's nurse staffing plan. Each individual patient care unit may use the Nurse Staffing Committee Checklist to guide their work.
- Staff continuously monitor individual and aggregate patient care needs and make adjustments to staffing per agreed upon policy and collective bargaining agreement (if applicable).
- The committee will perform a semiannual review of the staffing plan. If changes are made to the staffing plan throughout the calendar year, an updated staffing plan will be submitted to DOH.
- The hospital is committed to ensuing staff are able to take meal and rest breaks as required by law, or collective bargaining agreement (if applicable). The committee considers breaks and strategies to ensure breaks when developing the plan. A global break policy may be used, or individual patient care units may have discretion in structuring breaks to meet specific needs while meeting the requirements of the law. Data regarding missed or interrupted breaks will be reviewed by the committee to help develop strategies to ensure nurses are able to take breaks.

## **Nurse Staffing Plan Scope**

\*Acute care hospitals licensed under <u>RCW 70.41</u> are required by law to develop a nurse staffing plan. The plan must cover areas of the hospital that: 1) are under the hospital's license (RCW 70.41) and 2) where a nurse(s) provides patient care (i.e., "patient care unit").

The following areas of the hospital are covered by the nurse staffing plan:

- Critical Care (includes NICU, PICU, and CICU)
- Acute Care (includes Medical Unit, Surgical Unit, Cancer and Blood Disorders Unit, Rehabilitation Unit, and Psychiatry and Behavioral Medicine Unit)
- Perioperative Services (includes PACU, Main Campus OR, and Bellevue Surgery Center)
- Urgent and Emergent Services (Main Campus ED, and Urgent Care at several locations)
- Ambulatory Services (Dialysis Unit, Infusion Unit, Ambulatory Clinics at several locations, and Radiology)

## **Unit Descriptions, Nurse Staffing Plan Summaries, and Matrices**

\*Matrices are developed as a guide for shift-by-shift unit-based staffing decisions and are adjusted up or down based on patient factors and skill-mix of hospital staff.

## **Inpatient Nursing Units**

For daily staffing needs, the Charge RN determines the number of staff needed based on a calculation of the unit census and budgeted hours of nursing care. The Charge RN then reviews any additional factors such as acuity, admissions, discharges, and transfers, geography, and skill mix needs in order to determine the total number of staff needed to safely care for the patients. Units also have a huddle structure that can be used to inform the CN and potentially make necessary adjustments to patient assignments. Staffing needs are reviewed in four-hour blocks and adjustments made for areas that are open 24 hours a day.

SC has a centralized staffing office that coordinates the staffing needs of the inpatient areas and assure the staffing needed to support their staffing plans. Both the acute care and critical care divisions also use staff within a float pool that are deployed through a centralized staffing office to the areas that identify staffing needs within their respective divisions. Unit based staff may also float to another department who has a staffing need.

### **Critical Care Division**

The Critical Care Division is comprised of the Neonatal Intensive Care Unit, Cardiac Intensive Care Unit and the Pediatric Intensive Care Unit for a total of 96 beds. Each individual department within the division develops their own staffing plan. However, the three ICU Charge RNs work together throughout their shifts to best utilize the available ICU RN's and maximize utilization of ICU RN resources to meet current and anticipated patient needs. In the ICUs, when making assignments, the American Association of Critical Care Nurse's Synergy model is utilized: the needs of the patient and family and the complexity of therapies and interventions are matched with the skills and abilities of the RN. The Critical Care Float Pool (CCFP) is comprised of nurses trained in the PICU, ICU, and NICU and provides floating coverage to any of the three ICUs that have a staffing need. Voluntary scheduled call shifts are also used to address the times when staffing needs exceed what is scheduled.

The daily schedule is posted each shift across the ICU division (NICU, PICU, and CICU). This includes charge nurses for each ICU who oversee the nursing care in the unit and facilitates flow in and out of the unit. Charge RNs typically do not have a patient assignment.

ICU Techs (CNAs) support the delivery of supplies, linen and equipment to the bedside RN 24/7 in the PICU and CICU. They can help the bedside RN with care activities such as turning and weighing patients, giving baths under the RN's supervision, and assisting with the transport of patients.

Respiratory Therapists also support nurses in the Critical Care Division.

# **Neonatal Intensive Care Unit**

Number of beds	32
Average daily census	31
RN hours per patient day	18.45
Average patients/RN	1-2:1
Total RN FTE needs (includes direct and indirect care)	126.05

#### **Neonatal Intensive Care Unit**

The Neonatal Intensive Care Unit is a 32-bed quaternary care unit and the only Level IV NICU in Washington that receives referrals from four states: Washington, Alaska, Montana, and Idaho (WAMI). Patients in the NICU are neonates up to 50 weeks post-gestational age. It is unique from a traditional NICU as many of the patients have congenital diagnoses requiring specialized pre-operative surgical and postoperative surgical care. Critically ill neonates with complex medical issues are also cared for in this unit. Specialized care provided includes ECMO/ECLS, cooling, in-room surgical procedures, high frequency oscillatory ventilation, use of inhaled nitric oxide, etc. The NICU charge nurse responds to all Code Blue events in the hospital.

The unit is supported by two Charge Nurses. An Operational Charge Nurse (CN-O), who coordinates staffing and facilitates patient flow; and a Clinical Charge Nurse (CN-C), who responds to all Code Blue events in the hospital; performs quality rounding on patients; and is a nursing clinical resource for the unit.

In addition to the Charge RNs, the NICU uses 2 NICU Support Nurses (NSNs) based on census and acuity of the unit. The NSNs support the clinical needs of the unit. For example: assisting with new admissions; supporting RNs with patient care, procedures; coaching/mentoring new RNs; providing coverage for breaks/lunches; placement of peripherally inserted central catheters (PICC lines); and facilitating CLABSI reduction initiatives.

The unit is also supported by Certified Nursing Assistants (CNAs). The model of care calls for 2 CNAs on day shift and 1 CNA on night shift. NICU CNAs support the NICU RNs stocking supplies/equipment; admission room set-up; holding/comforting babies; assisting with transfers/transports; and runner during codes.

# **Pediatric Intensive Care Unit**

Number of beds	40
Average daily census	30
RN hours per patient day	20.85
Average patients/RN	1-2:1 (see acuity considerations)
Total RN FTE needs (includes direct and indirect care)	149.6

#### **Pediatric Intensive Care Unit**

The Pediatric Intensive Care Unit (PICU) is a 40-bed quaternary care referral center for four states: Washington, Alaska, Montana, and Idaho (WAMI region). Patients cared for are infants up to young adults and have a wide range of clinical conditions. Examples of medical conditions include septic shock, acute and chronic respiratory failure, diabetic ketoacidosis, and metabolic diseases. Our team also manages patients from a wide range of surgical and medical services to include Neurosurgery, Solid Organ Transplant, Craniofacial/Plastics, Hematology/Oncology and Bone Marrow & Stem Cell Transplant patients. Specialized care provided in the PICU includes cerebral and renal oximetry monitoring, high frequency oscillatory ventilation, use of inhaled nitric oxide, continuous renal replacement therapy (CRRT) and intracranial pressure monitoring. This also includes extracorporeal life support (ECMO), highly specialized cardiopulmonary support. There is one operational charge nurse (OCN) and up to two to three clinical charge nurses assigned per shift; the OCN in charge of staffing and the other CNs are clinical support. The PICU charge nurse responds to all Code Blue, Code Green, Medical Emergency Team (MET) events in the hospital. In addition to the charge nurses, there may also be a Resource/Admit nurse staffed to help with break coverage, on-unit emergencies, patient care tasks, and admit if necessary.

#### Model of Care:

- 2 Clinical Charge Nurses & 1 Operational Charge Nurse per shift and may add 1 addition clinical charge nurse to support census and acuity on an as needed basis.
- 1 Admit/Resource nurse if staffing allows. 2 CNAs on days, 1 CNA on nights, occasionally staffed with 11a-11p Resource CNA that supports ICU division

#### Acuity considerations:

- Cannulating to ECMO 1:2
- Floor status patients unable to move out of PICU who are geographically close to each other
   (3:1)

# **Cardiac Intensive Care Unit**

Number of beds	24
Average daily census	17
RN hours per patient day	20.54
Average patients/RN	1-2:1
Total RN FTE needs (includes direct and indirect care)	86.32

#### **Cardiac Intensive Care Unit**

This CICU is a 24-bed unit quaternary care referral center for four states: Washington, Alaska, Montana, and Idaho (WAMI). Patients cared for are newborns up to young adults with acquired and congenital heart disease. The CICU supports robust mechanical circulatory assist and cardiac transplant programs. Specialized care provided in the CICU includes cerebral oximetry monitoring, inhaled nitric oxide, temporary pacemakers, heart failure management, open chest procedures and continuous renal replacement therapy (CRRT). Extracorporeal life support represents a highly specialized form of cardiopulmonary support that includes the use of ECMO and ventricular assist devices.

The unit is supported by 2 (two) Charge Nurses. An Operational Charge Nurse (CN-O), who coordinates staffing and facilitates patient flow; and a Clinical Charge Nurse (CN-C), who responds to all Code Blue events in the hospital; performs quality rounding on patients; and is a nursing clinical resource for the unit. The CICU may also use 1 (one) resource RN (dependent on unit census and/or acuity) that can assist in care of patients immediately post procedure, admissions, transports, provide coverage for required breaks, and may take a patient assignment as needed to cover changing needs of the department.

#### Critical Care Float Pool and RISK RN

Critical care float pool staff can be deployed to the one of the three critical care areas to cover needs related to census, acuity, sick calls, etc.

A RISK (Recognized Illness Severity in Kids) nurse is trained to the critical care division. They actively round in each acute care unit and perform evaluations for potential clinical deterioration or patient concern as available. They do not have a patient assignment and respond to all Rapid Response Team activations (RRTs). The second risk nurse may be deployed to one of the three critical care areas and will function as a 2nd RISK nurse based on RISK acuity Tool.

An ACE (Advanced CRRT and ECMO) nurse is scheduled every shift. The ACE nurse provides support for technology needs across all 3 ICUs, including ECMO, CRRT priming, troubleshooting and break coverage, membrane plasma exchange and just in time training and coaching.

#### Additional resources for the Critical Care Division

The three ICU Charge RNs work together throughout their shifts to best utilize the available ICU RN's and maximize utilization of ICU RN resources to meet current and anticipated patient needs. In the ICUs, when making assignments, the American Association of Critical Care Nurse's Synergy model is utilized: the needs of the patient and family and the complexity of therapies and interventions are matched with the skills and abilities of the RN. Scheduled call shifts, floating, and moving staff from indirect care (i.e., meetings/projects) to direct care are used to address the times when staffing needs exceed what is scheduled.

Specially trained RNs and RTs who provide care for ECMO and CRRT patients are also scheduled each shift. These nurses are in ICU division staffing numbers. ECMO does require one nurse to be on call per 12hr shift. They also have the ability to flex the number of RNs/ RTs based on additional patient's needs through use of call and posting additional available shifts.

## **Acute Care Division**

The Acute Care Division is comprised of the Medical Unit, Surgical Unit, Cancer and Blood Disorder Unit, Rehabilitation Unit, and Psychiatry and Behavioral Medicine Unit and for a total of 227 beds. Each individual department within the division develops their own staffing plan. However, with help from the centralized staffing office the units Charge RNs work together to deploy staff and maximize utilization of resources to meet current and anticipated patient needs. The Acute Care Float Pool (ACFP) is comprised of nurses trained in the acute care areas (and Emergency Department), and provides floating coverage to any of the areas that have a staffing need. Voluntary scheduled call shifts are also used to address the times when staffing needs exceed what is scheduled.

The daily schedule is posted each shift in each area. Charge RNs for each area oversee the nursing care in the unit and facilitates flow in and out of the unit.

CNAs support the delivery of supplies, linen and equipment to the bedside RN. They can help the bedside RN with care activities such as turning and weighing patients, giving baths under the RN's supervision, and assisting with the transport of patients.

Respiratory Therapists also support nurses in the Acute Care Division.

# Medical Unit - River 4

Number of beds	47
Average daily census	39.2
RN hours per patient day	8.76
Average patients/RN	3-4:1
Total RN FTE needs (includes direct and indirect care)	80.67

# **Medical Unit – Forest 3**

Number of beds	32
Average daily census	31.6
RN hours per patient day	11.54
Average patients/RN	2-3:1
Total RN FTE needs (includes direct and indirect care)	85.46

#### **Medical Units**

The Medical Unit is a 79-bed unit that is further subdivided into two areas that care for patients (newborn to 21 years) from medical specialty services. Medical River 4 is 47 beds comprised mainly of endocrine, neurology, rheumatology, and GI service patients. Medical River 4 is the hospital Special Pathogen Unit. Medical Forest 3 is 32 beds and comprised mainly of pulmonary and cranio-facial service patients. Staff in this area also care for patients with tracheostomies and ventilators and staff receive additional training to support this care. Other general medical patients may be placed on either of the medical floors.

The Medical Unit uses RNs, Certified Nursing Assistants (CNAs) and, at times, Nurse Technicians (NTs). The percent of skill mix for River 4 is approximately 75% RN and 25% CNA. The percent of skill mix for Forest 3 is approximately 88% RN and 12% CNA. RNs on the Medical Units are also supported by Respiratory Therapists (RTs).

Forest 3 is supported by one (1) fixed Charge Nurse (CN) and a 2<sup>nd</sup> variable Charge Nurse, based on census and acuity.

River 4 is supported by one (1) fixed Charge Nurse (CN) and a 2<sup>nd</sup> variable Charge Nurse, based on census and acuity.

RNs on River 4 are typically assigned three to four patients. RNs on Forest 3 are typically assigned two to three patients. Although not all inclusive, factors that may be considered when determining ratios include the presence of artificial airways or continuous intravenous medication drips (ex. insulin), the level of respiratory support, the frequency of required monitoring, assessments and interventions, the experience and skill level of the RN, the language of care for the patient and/or family, the availability of other support staff (CNAs, NTs, RTs), and the overall status and trajectory of a patient (ex. patients who have recently coded or had a rapid response team called or patients at end of life.

# Surgical Unit - RC5

Number of beds	31
Average daily census	26.94
RN hours per patient day	9.93
Average patients/RN	3
Total RN FTE needs (includes direct and indirect care)	67

## **Surgical Unit/RC5**

The Surgical Unit/RC5 is a 31-bed unit that cares for patients (infants to young adults) covered by mostly surgical specialties and some medical specialties. This unit's patient population is comprised mainly of General Surgery, Orthopedics, Urology, Neurosurgery, Neurology, Plastics, Craniofacial, and ENT/OTO service patients. Staff in this area care for patients with external ventriculostomies, seizure monitoring needs, halo-gravity traction devices, and fresh spinal fusions; they receive additional training to support this care.

RNs are typically assigned three patients. However, RNs can flex up to four patients or down to one to two patients. Factors that are taken into account when determining ratios include the presence of external ventriculostomies, presence of epidural infusions, fresh post-op spinal fusions, fresh halogravity traction device installation, increased respiratory needs, patients with total care needs, and frequency of required monitoring, assessments, and interventions. When in a paired assignment with an LPN, RNs can flex up to five or six patients.

The Surgical Unit uses Registered Nurses (RN), Licensed Practical Nurses (LPN), and Certified Nursing Assistants (CNA). The percent of skill mix for the Surgical Unit/RC5 is approximately 76% RN, 2% LPN, and 22% CNA.

# Surgical Unit - RC6

Number of beds	43
Average daily census	37
RN hours per patient day	10.62
Average patients/RN	3:1
Total RN FTE needs (includes direct and indirect care)	94

## Surgical Unit/RC6

Unit and patient population: R6 Surgical Unit: Cardiology, Cardiac Surgery, Solid Organ Failure and Transplant, Dialysis, Neonatology

Model of Care: Operational charge nurse, Clinical charge nurse x2 (RC6 and RB6), CNA (cluster support), Nurse Tech and LPNs as Resource or in Team Assignment

Timing based changes in Model of Care: N/A

Acuity considerations that would change baseline ratios: VAD, new milrinone, ICU transfer for new transplant.

# **Cancer and Blood Disorder Center**

Number of beds	48
Average daily census	41
RN hours per patient day	10.42
Average patients/RN	2:1 BMT, 3:1 H/O 2-4:1 overall
Total RN FTE needs (includes direct and indirect care)	108.70

## **Cancer and Blood Disorder Center / Inpatient Unit**

The inpatient CBDC unit is a 48-bed unit caring for patients from birth to young adult who are being treated for a hematologic or oncologic diagnoses. This includes Hematopoietic Stem Cell transplant (HSCT) and Immunotherapy patients.

RNs on the CBDC are typically assigned between two and four patients. CNAs work on all shifts supporting patient care delegated by RNs. The percent of skill mix is approximately 70% RN and 30% CNA. Assignments may include patients from either the Hematology/Oncology or HSCT Service. RNs are initially trained to either the Hematology/Oncology service or the HSCT service. Within the first year, staff completes their training by cross training to the other area. All staff on the CBDC have completed APHON Chemotherapy and Biotherapy Provider training prior to administering chemotherapeutic agents.

The unit is supported by two Charge Nurses. An Operational Charge Nurse (OCN), who coordinates staffing and facilitates patient flow; and a Clinical Charge Nurse (CCN), who supports census/acuity on the unit in addition to coaching/mentoring of staff, providing coverage for breaks/lunches and assisting in the delivery of chemotherapy to off-floor patients. Based on unit census and time of day 2-4 Charge RNs are utilized. Typically, the unit will staff (3) CCN and (1) OCN from 0700-2300, and (1) OCN and (1) CCN from 2300-0700. Additional resources available to staff and patients include a Transition RN focused on teaching related to their disease or home care needs, as well as discharge planning and coordination of care.

# **Rehabilitation Unit**

Number of beds	12
Average daily census	9.84
RN hours per patient day	10.48
Average patients/RN	3-4:1
Total RN FTE needs (includes direct and indirect care)	23.58

#### **Rehabilitation Unit**

The Rehabilitation Unit is a 12-bed unit, providing inpatient evaluation and care of children up to 21 years of age with disabilities due to illness, injury or congenital causes. Additionally, they may care for general surgery and general medical patients. Collaborating with a cross disciplinary team, care is provided to children with traumatic brain injury, spinal cord trauma, burns, and neurological disorders as well as physical or cognitive disabilities. Staff on this unit care for patients with tracheostomies and ventilators and they receive additional training to support this care. Rehab RNs help to organize the family's experience and prepare them for the transition back to their home and community.

RNs are typically assigned two to four patients. Factors that are taken into account when determining ratios include the presence of artificial airways, the level of rehab therapy support needed, and the frequency of required monitoring, assessments and interventions. Timing based changes include decreasing RN target by one RN during the 2300-0700 shift and creating more four patient assignments during this time. There is a one charge nurse model on each shift. LPNs/CNAs work on all shifts supporting patient care delegated by RNs or provide coverage for patient watches.

The Rehabilitation Unit uses Registered Nurses (RN), Licensed Practical Nurses (LPN) and Certified Nursing Assistants (CNA). The percent of skill mix for the Rehabilitation Unit is approximately 82% RN, 4% LPN, 14% CNA. A CRRN (Certified Rehabilitation Registered Nurse) is present on day and evening shifts to oversee plans of care for rehab trauma patients.

## **PBMU**

Number of beds	41
Average daily census	34.40
RN hours per patient day	3.93
Average patients/RN	8-11
Total RN FTE needs (includes direct and indirect care)	32.35

## **Psychiatry and Behavioral Medicine Unit**

The Psychiatric and Behavioral Medicine Unit (PBMU) consists of 41 beds. A portion of these beds may be utilized for Involuntary Treatment Assessment. Care is provided on a 24-hour basis, 7 days a week.

The PBMU is committed to the evaluation and behavioral stabilization of children (ages 4 through 17) with emotional, behavioral, and neuropsychiatric disorders. Depression, developmental delays, attention deficits, anxiety, pervasive developmental disorders, conduct disorders, oppositional-defiant disorders, anorexia/bulimia, and psychosis are among the disorders commonly diagnosed. The unit is also invested in treating children with unique concomitant problems such as hearing impairments, chronic medical illnesses, or physical developmental disabilities.

The PBMU program utilizes a model of care that emphasizes an interdisciplinary approach. Registered nurses, child and adolescent psychiatrists, psychiatric nurse practitioners, psychologists, mental health therapists, social workers, pediatric mental health specialists (PMHS), special education teachers, occupational, recreational, art, music, and speech therapists, and students from these various disciplines participate in the development of individualized treatment plans. Care includes the provision of behavior management in a milieu setting; parent and patient education; group activities; supportive family and individual support; psychotropic medication management and limited medical nursing services.

The unit is supported by two Charge Nurses. An Operational Charge Nurse (OCN), who coordinates staffing and facilitates patient flow; and a Clinical Charge Nurse (CCN), who responds to behavior and aggression management events on the unit; performs quality rounding on nurses and PMHSs; and is a nursing clinical resource for the unit. RNs work together with their PMHS partners to run the structure and routine of the day. In general, average PMHS/patient ratios are 1: 1 to 10 with variation dependent on patient acuity and age. Nurses typically hold a patient assignment of 8 to 11 patients with variation dependent on acuity and census. The PBMU also has a day shift admit nurse who supports the clinical needs of the unit in addition to completing admissions, assisting with discharges, RN breaks. The PBMU is part of the voluntary call program and does not require obligatory call.

#### Other Resources for Acute Care

## **ACFP and VAS**

Number of beds	N/A
Average daily census	N/A
RN hours per patient day	N/A
Average patients/caregiver	Unit dependent; 2 VAS RNs per shift
Total RN FTE needs (includes direct and indirect care)	54 (45 ACFP, 9 VAS)

### Acute Care Float Pool (ACFP) and Vascular Access Service (VAS)

The Acute Care Float Pool and VAS consists of RNs who provide coverage for unexpected absences and peaks in census. The staffing assignment mirrors that of the unit to which they are deployed. In addition, VAS service RNs are staff who respond to vascular access needs and place peripheral intravenous lines, port a cath access, or dressing changes on central lines.

### **Certified Nursing Assistant Float Pool**

The Certified Nursing Assistant Float Pool consists of CNAs who provide coverage for unexpected absences, peaks in census, and patient watch. They may be deployed to the inpatient areas, behavioral health, ED, and recovery room as needed. The staffing assignment mirrors that of the unit to which they are deployed and is based on RN delegation of appropriate tasks.

# **Inpatient Respiratory Care Services**

Number of beds	371
Average daily RT patient census	156
RT Minutes of Work per day	29,150
Average minutes of work/RT/Shift	690
Total RT FTE needs (includes direct and indirect care)	140

### **Respiratory Care**

The Respiratory Therapy Department is responsible for providing all aspects of respiratory care services at the main campus hospital and regional sites of care. The clinical RT staff provide a multitude of respiratory support and pulmonary care modalities. Respiratory Care Services covers all inpatient units, the emergency department, Perioperative areas, and radiology.

The Respiratory Care Service staffs the hospital based on a volume-based staffing protocol derived from minutes of work associated with active RT orders within EPIC. We function under the assumption that each RT can provide up to 690 minutes of work in a 12-hour shift. This protocol informs staffing decisions based on shift to shift demand for respiratory services.

## **Perioperative Services Division**

# **Main Campus - Seattle Operating Room**

Number of beds	22 Operating Rooms 1 Procedure Room
Average daily census	55 Cases
RN hours per patient day	N/A
Average patients/caregiver	1:1

### **Main Campus - Seattle**

Main Campus – Seattle has 22 operating rooms (ORs) and 1 procedure room\* and is staffed 24 hours/day with registered nurses, surgical technologists, and anesthesia technicians who provide care for patients undergoing surgery.

Each OR is staffed with a minimum of one registered nurse and one surgical technologist or two registered nurses, with the exception of dental surgery, which is staffed by one registered nurse and one certified dental assistant (scheduled and deployed by the dental clinic). Anesthesia technicians provide anesthesia support coverage for three to four rooms each. Two perfusionists provide coverage for each cardiac case requiring cardiopulmonary bypass (as scheduled and deployed by the Heart Center).

The OR charge nurse partners with the board runner anesthesiologist to manage patient flow in the OR and may take patients depending on departmental need. In addition to nurses and surgical techs assigned to direct patient care, the main OR assigns pod leaders to assist with tasks and breaks, as needed, Monday through Friday. The role of pod leader may be assigned to an RN or an ST. Additional support personnel include the OR Assistant (ORA) who provides support with equipment, room turnover, and other tasks, as delegated by the RN.

#### Seattle Children's Hospital Nurse Staffing Plan

Surgical services provided in the Main Campus - Seattle OR include cardiac surgery, dental surgery, general surgery, gynecologic surgery, neurosurgery, oral surgery, ophthalmology, orthopedic surgery, otolaryngology, plastic surgery, robotic surgery, solid organ transplant (kidney, liver, and heart), and urologic surgery.

\* While the total number of open sites of care may vary on a day-to-day basis, the departmental staffing model will remain the same.

## **PACU**

Number of beds	Mountain PACU Phase 1: 12
	Ambulant Surgical Zones: 22
	Forest B Induction Rooms: 8
	Forest B PACU Rooms: 12
	MAST Moderate and Deep Sedation Teams
	Pre-Procedure Call Room
	Pre-Anesthesia Testing Coordination
Average daily census	60
RN hours per patient day	N/A
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Average patients/RN	PACU Phase 1: 1-2 RNs per Patient
	Ambulant Surgical Zones: 1 RN to 2-3 Patients
	Pre-Procedure Call Room: 1 RN to 2-4 Patients per hour
	Pre-Anesthesia Testing Co-ordination: 6-7 RNs per day
	2 Mobile Anesthesia & Sedation teams: 4 RNs per day
Total RN FTE needs (includes direct and	78.32 FTE
indirect care)	

#### **Post-Anesthesia Care Unit**

PACU meets the organization's mission for children and families requiring anesthesia, by:

- Maintaining a team of RNs & CNAs that can flex and adapt to the highly variable patient volumes and acuity inherent with a tertiary perioperative service.
- Educating and maintaining a level of competence suited to the patient populations served, including care of critical care patients.
- Developing and continually evaluating policy, procedure & guideline to ensure resources are appropriate for patient demands and acuity.

#### Seattle Children's Hospital Nurse Staffing Plan

The Mountain PACU space consists of 12 Phase 1 Main PACU bays, 22 Ambulant Surgical bays, 2 Mobile Anesthesia and Sedation teams, a Pre-procedure Call team, and a Pre-anesthesia Testing team.

The Forest PACU space consists of 12 PACU private rooms that are a combination of Phases 1 and 2 care, in addition to 8 pre-op induction rooms.

Direct patient care is provided by RNs 24 hours/day and is supported by CNAs during peak times.

Both the Mountain PACU and Forest PACU work together to serve: 22 Operating Rooms, 2 Cardiac Catheterization labs, Radiology, CT, MRI, Nuclear Medicine, Interventional Radiology, GI, and a Procedure Room.

PACU supports a variable demand of identified anesthetic sites of care.

Unit flow is supported by a team of PACU Charge Nurses, OR Charge Nurses, and Anesthesia Charge Attendings. This team collaborates and plans next day operations and patient flow.

Forest PACU is staffed after hours and weekends to accommodate urgent or emergent surgeries and procedures.

Hours of operation and staffing targets are reviewed regularly with the PACU UBSC.

Acuity and volumes often change dramatically with little or no warning, sometimes by the hour. For this reason:

- Staff may volunteer for additional shifts/call shifts and there is a system of required call shifts in order to respond to urgent or emergent surgeries and procedures 24/7.
- Schedulers, Charge Nurses and front-line staff collaborate to make adjustments to published schedules when required.
- Multiple shift start times and lengths.

Scheduled rest breaks and meals are considered in planning the number of staff scheduled each day.

# **Bellevue Surgery Center**

Number of beds	4 Operating Rooms, 8 Induction Rooms, 14 PACU Rooms, MRI
Average daily census	N/A
Budgeted hours per patient day	N/A
Average patients/RN	1:1

<sup>\*</sup>Total count of Operating Rooms varies due to construction and operational demands.

### **Bellevue Surgery Center**

Bellevue Surgery Center provides care for patients undergoing outpatient surgery and radiology procedures requiring anesthesia Monday through Friday from 0730-1730 with onsite staff. Services include outpatient pediatric surgical procedures: neurosurgery, audiology, otolaryngology, urology, general surgery, ophthalmology, orthopedic surgery, plastic surgery, dental surgery, and dermatology procedures.

Our Operating Room staffing model for the operating room consists of two Circulating nurses and one surgical tech for each OR. Each operating room has an assigned anesthesia technologist to support with room setup, turnover and assist with regional blocks.

The Post Anesthesia Care Unit staffing model is patients are staffed at a 1:1 nurse patient ratio. Our recovery rooms consist of an individual rooms with a door to provider a quiet space for our patients and families during their post-operative recovery. Our PACU nurses are cross-trained and support sedated MRIs and other procedures in addition to providing post-operative recovery. We have a certified nursing assistant to help support daily operations and patient/family flow.

The patient family flow is supported a patient and family coordinator that staffs the front lobby desk and assists with family coordination throughout the surgery center. Our unit flow focus is controlled by an OR Charge Nurse, a PACU Charge Nurse and an Anesthesia Charge Attending daily. In addition to overseeing patient flow and daily operations, this team also collaborates and plans next day operations and patient flow.

## **Emergency Services & Critical Care Transport**

Emergency services provides triage, stabilization, and treatment for walk-ins and referrals from community providers. Critical Care Transport services include transport for critically ill patients in our region. This service also encompasses a transfer center which coordinates referrals and medical control for pediatric patients in the field and in hospitals in the region.

# **Emergency**

Number of beds	44
Average patients/caregiver	3-4:1
Average number of patient visits per day	250
Total RN FTE needs (includes direct and indirect care)	71.77

### **Emergency Department**

The Emergency Department (ED) is a 44 -bed unit. The ED is a 24/7 service managing the spectrum of mild to critically ill and injured patients presenting for care. The ED follows EMTALA guidelines, all patients presenting to the ED seeking care receive a Medical Screening Exam (MSE), stabilization, evaluation, and treatment. When appropriate, patients may need be transferred to an outside facility, prior to transfer a documented MSE and stabilization is completed. ED patients are managed by a team which includes: Security presence in the lobby and ED care space as needed, Admission Service Coordinators, RN's, CNAs, Nurse Technicians, Nurse Practitioners, Residents, Fellows, and Attending physicians. Child Life, Social Work and Mental Health Evaluators also support our patient population.

Nursing to Tech (CNA & NT) skill mix is 85% RN, 15% techs who support patient care activities and patient transport. Nursing specialty roles include charge, triage, external medical evaluation team (MET), and special pathogen response nurse. RN's typically care for 3-4 patients; this is assigned and can flex based on patient acuity. Seasonal variability and patient arrival patterns are taken into consideration when developing staffing plans. Census is tracked daily, weekly, and monthly to watch for trends and adjust staffing needs as appropriate. A real time dashboard is available, Charge Nurses (CN) use this to help match resources to patient demand. There is a voluntary on call system is in place to augment the staffing plan, CN's use established surge criteria to help determine when to activate call staff. ED and Critical Care Transport nurses staff the Communications and Transfer Center.

#### **Critical Care Transport**

Seattle Children's provides a 24-hour Critical Care Transport Service with Medical Control Physician (MCP) direction. The MCP is a physician from ICU's or Emergency Department based on the baby's diagnosis, clinical needs, and planned placement post transport.

The Critical Care Transport Service is a regional critical care inter facility transport team that provides ground (ambulance) and air (fixed wing and rotor wing) transport to the appropriate level of care for ill and injured patients of all ages. This includes transports to facilities other than Seattle Children's Hospital as appropriate. The Critical Care Transport Service also provides return transports (backtransports) to referring facilities as required.

The transport service has three teams on at a time, it is staffed with 3 RNs and 3 Respiratory Therapists 24 hrs/day, 7 days/week. 3 EMTs are also staffed through AMR.

## **Ambulatory Areas**

# **Dialysis**

Number of beds/chairs	Outpatient In-Center-7 stations Inpatient-NA Home Program-NA
Average Daily census per shift	Variable
Average patient/Caregiver	1-3:1 outpatient 1:1 inpatient 1-15:1 Home Program patients
Total RN FTE needs (includes direct and indirect care)	17.58

#### **Dialysis**

There are multiple RN roles within the Dialysis Program and staff are trained to these areas and then are assigned based on the need for that day. Staff can be rotated between outpatient In-Center Hemodialysis, Home Dialysis Program, and Inpatient/Acute Dialysis based on the need for that day. The outpatient In-Center Hemodialysis unit consists of RNs and dialysis technicians who provide care for outpatient hemodialysis patients. Nurses generally care for one to three patients in the outpatient In-Center Hemodialysis unit at a time depending on the nature of the monitoring and nursing tasks required. Home Program nurses generally care for one to fifteen patients on home peritoneal dialysis depending on the nature of the monitoring and education required. Inpatient/Acute Dialysis nurses generally care for one patient at a time and provide hemodialysis and peritoneal dialysis services within the inpatient setting.

Dialysis techs provide nursing support with direct patient care, monitoring and maintain water safety and equipment setups/turnover.

Inpatient/Acute Dialysis has one RN on call overnight and 24-hour coverage on Sunday, to accommodate urgent inpatient/acute dialysis needs, as well as supporting the Home Dialysis Program patients for after hour needs.

The outpatient In-Center Hemodialysis unit is open 6 days a week with hours of 0645-1915 Monday through Saturday, closed on Sundays and holidays.

The Home Dialysis Program is open 5 days a week with hours of 0900-1900 Monday-Friday. Closed on Weekends and holidays.

Inpatient/Acute Dialysis is open 24/7.

Floating, voluntary call, and any trained clinical dialysis staff (RNs and Dialysis Techs) may be utilized to meet unanticipated staffing needs.

# **Outpatient CBDC/Infusion Unit**

Number of beds	39
Average daily census	100
Average patients/RN	1-3:1
Total RN FTE needs (includes direct and indirect care)	37.24

### Infusion Unit and Outpatient Center for Cancer and Blood Disorders (CBDC)

The ambulatory infusion unit is located within the Outpatient Center for Cancer and Blood Disorders/Infusion located on FB.3 and FB.7. It serves children and young adults needing infusions that last less than 12 hours and have certain health conditions, including blood disorders, cancer, gastrointestinal problems, genetic disorders, immune system disorders, rheumatology disorders, and any other service line requiring an infusion. There are multiple RN roles within the infusion unit and staff are trained to these areas and then are assigned based on the need for that day. Staff rotate between infusion, procedures, operational charge RN, and clinical charge RN. All nurses are trained in portacath access, PIV placement, and PICC removal. The CBDC maintains two procedure suites and staffs with at least two RNs in this area per day. Apheresis is performed and supported within this unit. The unit is open 7 days a week with hours of Monday through Friday 07:00-730p, Saturday from 07:30-6pm, Sundays 0730-1600 staffed with nurses on call, and 0730-1600 on holidays. It is closed on major holidays (July 4<sup>th</sup>, Thanksgiving, Christmas Day, and New Year's Day). Infusions can also be provided at SCH Bellevue and South (Federal Way) Clinics, which is staffed by the same clinical nurses utilized at main campus. Floating, voluntary call, and any of 14 RN Care Coordinators may be utilized to meet unanticipated staffing needs. The Outpatient CBDC/Infusion Unit uses Registered Nurses (RN), Certified Nursing Assistants (CNA), and Medical Assistants (MA). The CNAs and MAs work under the nurses with a ratio of 1 CNA/RN per 3 nurses.

# **Urgent Care**

Urgent care is for illnesses and injuries that are not medical emergencies or life-threatening. SCH provides same day appointments for urgent care services at multiple locations; SCH main campus, North Clinic in Everett, South Clinic in Federal Way, and Bellevue.

Staffed hours for each site are as follows:

1530 - 0000 Monday-Friday

#### Seattle Children's Hospital Nurse Staffing Plan

1030 - 2300 Saturday, Sunday

#### Model of care:

RNs work with Urgent Care medical providers and CMA's to meet the care needs of the patient.

At times may staff an additional RN in the lobby.

1 Charge RN per site per shift

RNs care for 2-4 patients at a given time.

# **Ambulatory Specialty Clinics**

The Ambulatory Clinic specialties include Adolescent Medicine, Autism, Biochemical Genetics, Craniofacial, Dermatology, Dental, Endocrinology, Genetics, Gastroenterology, Infectious Disease, Neurodevelopmental, Nephrology, Neurology, Neurosurgery, Ophthalmology, Orthopedics, Plastics, Pulmonology, Rheumatology, Rehabilitation, Surgery, Urology, Vascular Anomalies, Pain Management, Preanesthesia, Psychology/Psychiatry, Solid Organ Transplant, Cardiology, Clinical Intake, Immunology and Hem/Oncology. In addition to the specialty clinics, Odessa Brown Children's Clinic is a community primary care clinic serving patients in the Seattle area. There are approximately 240 RNs. In addition, there are regional and outreach clinics in; Bellevue, Everett, Federal Way, Tacoma, Olympia, Silverdale, Tri-Cities, Wenatchee, Alaska, and Montana.

Ambulatory RNs participate in clinic staffing. There are several models for clinic staffing depending on patient needs. This may include a paired Provider/RN model or a model of the RN assisting multiple providers. Ambulatory RNs are also responsible for specialty care coordination. This includes phone triage, prior authorizations, prescriptions refills, reviewing lab results, coordinating scheduling, and clinic specific responsibilities; for example, seizure plans, diabetic teaching, 504 and IEP plans. The patient's core team may be comprised of physicians, nurse practitioners, physician assistants, registered nurses, medical assistants, certified nursing assistants, social workers, respiratory therapists, nutritionists, physical/occupational therapists, and child life. Daily membership of any patient's team is based on clinic presentation and reported concerns or issues.

Ambulatory clinic staffing varies with each specialty service. The specialty clinic, ophthalmology, does not have an RN staffed as part of their core team.

There is also an ambulatory RN float pool that can be deployed to support staff outages, float staff can also be assigned to cover planned or unplanned leaves for RN clinic staff.

RNs from Seattle main campus may be deployed to regional sites to support specialty clinics and to provide additional resources. An ambulatory RN leader is part of an escalation path for clinics that need an RN resource, the leader can assist in developing a mitigation plan.

# Radiology

Radiology provides diagnostic and therapeutic services for patients utilizing digital X-rays (DX), magnetic resonance imaging (MRI), computed tomography (CT), nuclear medicine (NM), DEXA, ultrasound (US), and invasive interventional radiology. A full range of imaging services is offered at the main campus. Radiology nursing staff cover two areas, radiology recovery, and interventional radiology (IR). Monday through Friday 10-14 RNs are scheduled between 0630-1830. There are staggered start times so that IR and radiology recovery will have nursing staff available until 6:30pm, respectively. After hours is staffed by on call coverage. Saturday and Sunday there is one RN scheduled in radiology recovery with an additional RN on call to cover IR if needed for urgent cases. Each nurse area care for one patient at a time.