

PRACTICE RECOMMENDATION

Patient Classification/ Staffing Recommendations

Staffing is based on patient acuity, census, patient flow processes, availability of support resources, and physical facility.^{1,2} The perianesthesia registered nurse uses clinical judgment to determine nurse-patient assignments based on patient acuity and nurse knowledge and skills. The safety of both the patient and the healthcare team must be considered in determining safe nurse-patient ratios in any given location.

Research has shown that adequate hospital nurse staffing and nurses with higher levels of education, combined with healthier nurse work environments, are associated with lower hospital mortality.³⁻⁵ For these reasons, ASPAN supports BSN as an entry into practice, and certification for perianesthesia nurses to promote optimal perianesthesia patient outcomes. Inadequate nurse staffing leads not only to adverse patient events but also increased nurse burnout.¹ Every effort must be made to support a safe and healthy work environment.⁶

Preanesthesia, Phase I, Phase II, and Extended Care are distinct phases of care, not locations of care.⁷

“It is difficult to prescribe staffing ratios for the Preadmission and Day of Surgery/Procedure units based on wide variations across the country in the role and function of the nursing staff in these units. When considering staffing patterns, patient safety is of highest priority with plans to accommodate patients with high acuity needs.

^bThe perianesthesia registered nurse provides care to each patient inclusive of the patient’s family. There are strict legal definitions of family that are purposefully narrow and are used for legal documents as well as end of life decisions. However, the restrictive qualities of legal definitions make them ill-suited for routine care issues.¹⁰ When the patient can communicate, the ideal definition of family is whomever the patient defines as family.¹¹ When the patient is unable to communicate, a practical definition of family is anyone who participates in decisions impacting the care and well-being of the patient.¹²

PREANESTHESIA PHASE

Preadmission^a

Perianesthesia registered nursing roles, during this phase, focus on assessing the patient and developing a plan of care designed to meet the preanesthesia physical, psychological, educational/health literacy,^{8,9} sociocultural, and spiritual needs of the patient/family.^b The nursing roles also focus on preparing the patient/family for the experience throughout the perianesthesia continuum. Interviewing and assessment techniques are used to identify potential or actual problems that may occur.

Staffing for preadmission units (e.g., preadmission testing, preanesthesia testing, preoperative assessment clinic, preanesthesia assessment unit, preoperative teaching unit) is dependent on patient volume, patient health status and educational/health literacy needs, discharge planning needs, and required support for preanesthesia/preprocedure interventions.

Day of Surgery/Procedure^a

Perianesthesia nursing roles, during this phase, focus on validation of existing information and completion of preparation of the patient. The perianesthesia registered nurse continues to assess the patient and develops a plan of care designed to meet the physical, psychological, educational, sociocultural, and spiritual needs of the patient/family.

Staffing for Day of Surgery/Procedure

Due to the varied complexities of these units, recommended staffing ratios must be determined by individual facilities based on, but not limited to, the following criteria:

- Patient safety
- Number and acuity of patients (patient characteristics including age, cultural diversity, and requirements of care based on preoperative interventions and type of procedure)
- Complexity (management of patient acuity) and required nursing interventions
 - Examples include, but are not limited to: average time in patient preparation (e.g., physical assessments, education, testing, history completion, patient/family education, preoperative testing, vascular access, completion of required paperwork/electronic charting, blood product administration)
 - Medication reconciliation/administration (e.g., antibiotics, sedation, anxiolytics)
 - Moderate sedation and subsequent monitoring for invasive procedures
 - Procedures (e.g., insertion of invasive lines, regional blocks)
 - Need for additional monitoring
- Additional components of the specific unit (e.g., blending of phases of care and physical layouts)

POSTANESTHESIA PHASE

Phase I Care^c

The perianesthesia registered nursing roles, during this phase, focus on providing postanesthesia nursing care to the patient in the immediate postanesthesia period and transitioning them to Phase II care, the inpatient setting, or to a critical care setting for continued care.

Perianesthesia registered nurses will share the data that is utilized to support unit staffing for Phase I units with leadership. It is the responsibility of all perianesthesia registered nurses to ensure that leadership and administration are aware of this practice recommendation and the nuances involved in providing appropriate staffing patterns that balance patient safety, acuity, census, complexity, case mix, skill mix, and nursing competencies when staffing.¹⁴

It is ASPAN's position that an appropriate number of perianesthesia registered nurses with demonstrated competence is available to meet the individual needs of patients and families in each phase of perianesthesia care based on patient acuity, census, patient throughput, and physical facility.^{1,3}

TWO REGISTERED NURSES, ONE OF WHOM IS A PERIANESTHESIA REGISTERED NURSE COMPETENT IN PHASE I POSTANESTHESIA NURSING, ARE IN THE SAME ROOM/UNIT WHERE THE PATIENT IS RECEIVING PHASE I CARE.^d THE PHASE I REGISTERED NURSE MUST HAVE IMMEDIATE ACCESS AND DIRECT LINE OF SIGHT WHEN PROVIDING PATIENT CARE. THE SECOND REGISTERED NURSE SHOULD BE ABLE TO DIRECTLY HEAR A CALL FOR ASSISTANCE AND BE IMMEDIATELY AVAILABLE TO ASSIST. THESE STAFFING RECOMMENDATIONS SHOULD BE MAINTAINED DURING "ON CALL" SITUATIONS.

Phase I Care: Laidlaw et al v. Lions Gate Hospital is a landmark case that refers to the Phase I PACU as "the most important room in the hospital," because it "poses the greatest potential dangers to the patient" so that there should be no relaxing of vigilance and there should be constant and total care provided by the nurse.¹³

^dThe intent of this standard is that the qualified Phase I perianesthesia registered nurse, who is providing care to a Phase I patient, is not left alone with the patient at any time. The expectation is that the Phase I perianesthesia registered nurse is at the bedside providing direct patient care. The Phase I nurse must have immediate access and direct line of sight when providing care for a second patient. The second registered nurse should be able to directly hear a call for assistance AND be immediately available to assist. The qualifications of the second registered nurse should reflect patient acuity as well as the number of patients in the Phase I care.



- Staffing should reflect patient acuity. In general, a 1:2 nurse-patient ratio in Phase I allows for appropriate assessment, planning, implementing and evaluation for discharge as well as increased efficiency and flow of patients through the Phase I area
- The need for additional Phase I perianesthesia registered nurses and support team members is dependent on the patient acuity, complexity of patient care, patient census, and the physical facility
- This model allows for flexibility in assignments as patient acuity changes
- New admissions should be assigned so that the Phase I perianesthesia registered nurse can devote attention to the care of that admission until critical elements are met (See Class 1:1 One Nurse to One Patient.)
- Staffing patterns should be adjusted, as needed, based on changing acuity and nursing requirements and as discharge criteria are met
- For the patient with isolation requirements, plans must be made to provide a safe environment with recommended staffing ratios maintained based on the acuity of the patient and type of isolation precautions (e.g., negative pressure)
- The perianesthesia registered nurse will maintain appropriate staffing recommendations when planning for transport of patients in or out of the unit (Refer to Practice Recommendation on Safe Transfer of Care: Handoff and Transportation.)

CLASS 1:2 ONE NURSE TO TWO PATIENTS

Examples may include, but are not limited to, the following:

- a. Two conscious patients, stable and free of complications, but not yet meeting discharge criteria
- b. Two conscious patients, stable and under the age of eight years, with family or competent support team members present, but not yet meeting discharge criteria
- c. One unconscious patient, hemodynamically stable, with a stable airway, over the age of eight years and one conscious patient, stable and free of complications
- d. Consideration should be made for the developmentally delayed patient taking into consideration psychological age, responses to unfamiliar surroundings, and family involvement¹⁵

CLASS 1:1 ONE NURSE TO ONE PATIENT

Examples may include, but are not limited to, the following:

- a. At the time of admission, until the critical elements are met which include:
 - Report has been received from the anesthesia care provider, questions answered and the transfer of care has taken place
 - Patient has a stable/secure airway**
 - Patient is hemodynamically stable
 - Patient is free from agitation, restlessness, combative behaviors
 - Initial assessment is complete
 - Report has been received from the anesthesia care provider
 - The nurse has accepted the care of the patient

- b. Airway and/or hemodynamic instability**
 - **Examples of an unstable airway include, but are not limited to, the following:
 - . Requiring active interventions to maintain patency such as manual jaw lift or chin lift or an oral airway
 - . Evidence of obstruction, active or probable, such as gasping, choking, crowing, wheezing, etc.
 - . Symptoms of respiratory distress including dyspnea, tachypnea, panic, agitation, cyanosis, etc.
- c. Any unconscious patient eight years of age and under
 - . A second nurse must be available to assist as necessary
- d. Patient with isolation precautions until there is sufficient time for donning and removing personal protective equipment (PPE) (e.g., gowns, gloves, masks, eye protection, specialized respiratory protection) and washing hands between patients. Location dependent upon facility guidelines

CLASS 2:1 TWO NURSES TO ONE PATIENT

Example may include, but is not limited to, the following:

- a. One critically ill, unstable patient

Phase II Care

Perianesthesia nursing roles, during this phase, focus on preparing the patient/family for discharge from the facility.

TWO PERSONNEL, ONE OF WHOM IS A PERIANESTHESIA REGISTERED NURSE COMPETENT IN PHASE II POSTANESTHESIA NURSING, ARE IN THE SAME ROOM/UNIT WHERE THE PATIENT IS RECEIVING PHASE II CARE.^d THE SECOND PERSON SHOULD BE ABLE TO DIRECTLY HEAR A CALL FOR ASSISTANCE AND BE IMMEDIATELY AVAILABLE TO ASSIST. THE NEED FOR ADDITIONAL REGISTERED NURSES AND SUPPORT STAFF IS DEPENDENT ON THE PATIENT ACUITY, AGE, COMPLEXITY OF PATIENT CARE, FAMILY SUPPORT, PATIENT CENSUS, AND THE PHYSICAL FACILITY. THESE STAFFING RECOMMENDATIONS SHOULD BE MAINTAINED DURING “ON CALL” SITUATIONS.

Generally, a 1:3 nurse patient ratio allows for appropriate assessment, planning, implementing care, and evaluation for discharge as well as increasing efficiency and flow of patients through Phase II.

- The need for additional Phase II perianesthesia registered nurses and support team members is dependent on the patient acuity, complexity of patient care, patient census, and the physical facility
- This model allows for flexibility in assignments, as patient acuity is subject to change
- New admissions should be assigned so that the Phase II perianesthesia registered nurse can devote attention, as needed, to appropriate discharge assessment and teaching
- Staffing patterns should be adjusted, as needed, based on changing acuity, nursing requirements, and as discharge criteria are met



- For the patient with isolation (negative or positive) requirements, plans must be made to provide a safe environment with recommended staffing ratios maintained based on the acuity of the patient and type of isolation precautions
- The perianesthesia registered nurse will maintain appropriate staffing recommendations when planning for transport of patients in or out of the unit (Refer to Practice Recommendation on Safe Transfer of Care: Handoff and Transportation.)

CLASS 1:3 ONE NURSE TO THREE PATIENTS

Examples include, but are not limited to:

- Over eight years of age
- Eight years of age and under with family present

CLASS 1:2 ONE NURSE TO TWO PATIENTS

Examples include, but are not limited to:

- Eight years of age and under without family or support healthcare team members present
- Initial admission to Phase II

CLASS 1:1 ONE NURSE TO ONE PATIENT

Example includes, but is not limited to:

- Unstable patient of any age requiring transfer to a higher level of care

Extended Care^e

The nursing roles, in this phase, focus on providing the ongoing care for those patients requiring extended observation/intervention after transfer/discharge from Phase I and/or Phase II care.

TWO COMPETENT PERSONNEL, ONE OF WHOM IS A REGISTERED NURSE POSSESSING COMPETENCE APPROPRIATE TO THE PATIENT POPULATION, ARE IN THE SAME ROOM/UNIT WHERE THE PATIENT IS RECEIVING EXTENDED CARE. THE NEED FOR ADDITIONAL REGISTERED NURSES AND SUPPORT STAFF IS DEPENDENT ON THE PATIENT ACUITY, AGE, COMPLEXITY OF PATIENT CARE, FAMILY SUPPORT, PATIENT CENSUS, AND THE PHYSICAL FACILITY. THESE STAFFING RECOMMENDATIONS SHOULD BE MAINTAINED DURING “ON CALL” SITUATIONS.

CLASS 1:3-5 ONE NURSE TO THREE-FIVE PATIENTS

Examples of patients that may be cared for in this phase include, but are not limited to:

- Patients awaiting transportation home
- Patients with no caregiver, home, or support system
- Patients who have had procedures requiring extended observation/interventions (e.g., potential risk for bleeding, pain management, postoperative nausea and vomiting management, removing drains/lines)
- Patients being held for a non-critical care inpatient bed

^eAppropriate staffing requirements should be met to prioritize safe, competent nursing care for the immediate postanesthesia patient, or the patient needing the highest level of care, in addition to the care of the blended patient population. Patient safety is the highest priority.

Blended Postanesthesia Care^e

Perianesthesia units may provide Phase I, Phase II, and/or Extended Care within the same environment.¹⁶ This may require the blending of patients and staffing patterns.

In the blended environment, the perianesthesia registered nurse uses clinical judgment based on patient acuity, nursing observations, and required interventions to determine staffing needs.

REFERENCES

1. Weston MJ, Brewer KC, Peterson CA. ANA principles: the framework for nurse staffing to positively impact outcomes. *Nurs Econ*. 2012;30(5):247-252.
2. Davis Y, Perham M, Hurd AM, et al. Patient and family member needs during the perioperative period. *J Perianesth Nurs*. 2014;29(2):119-128. <https://doi.org/10.1016/j.jopan.2013.05.013>
3. Aiken LH, Cimiotti JP, Sloane DM, Smith HL, Flynn L, Neff DF. Effects of nurse staffing and nurse education on patient deaths in hospitals with different nurse work environments. *J Nurs Adm*. 2012;42(10 Suppl):S10-6. <https://doi.org/10.1097/01.nna.0000420390.87789.67>
4. Needleman J, Buerhaus P, Pankratz S, Leibson CL, Stevens SR, Harris M. Nurse staffing and inpatient hospital mortality. *N Engl J Med*. 2011;364(11):1037-1045. <https://doi.org/10.1056/nejmsa1001025>
5. Neuraz A, Guerin C, Payet C, et al. Patient mortality is associated with staff resources and workload in the ICU: a multicenter observational study. *Crit Care Med*. 2015;43(8):1587-94. <https://doi.org/10.1097/ccm.0000000000001015>
6. Blake N. Appropriate staffing for a healthy work environment. *AACN Adv Crit Care*. 2013;24(3):245-248. <https://doi.org/10.1097/nci.0b013e31829937f5>
7. Godden B. Determining the appropriate location and level of care for a postanesthesia and/or postsedation patient. *J Perianesth Nurs*. 2015;30(1):54-57. <https://doi.org/10.1016/j.jopan.2014.11.006>
8. Ross J. Legislating nurse staffing: understanding the issues and reviewing the evidence. *J Perianesth Nurs*. 2010;25(5):319-321. <http://dx.doi.org/10.1016/j.jopan.2010.07.006>
9. French KS. Transforming nursing care through health literacy ACTS. *Nurs Clin N Am*. 2015;50(1):87-98. <https://doi.org/10.1016/j.cnur.2014.10.007>
10. Stannard D. Clinical inquiry. In: Clifford TL, ed. *Ambulatory Surgical Nursing*. Elsevier. In press.
11. Stannard D, Cooper AS. Families of perianesthesia patients. In: Stannard D, Krenzischek D, eds. *Perianesthesia Nursing Care: A Bedside Guide for Safe Recovery*. 2nd ed. Jones & Bartlett; 2018:187-195.
12. Stannard D. Caring for patients' families. In: Benner P, Hooper-Kyriakidis P, Stannard D, eds. *Clinical Wisdom and Interventions in Acute and Critical Care: A Thinking-In-Action Approach*. 2nd ed. Springer; 2011:267-300.
13. Laidlaw v Lions Gate Hospital, 1969 CanLII 704 BC SC. Accessed July 14, 2022. <http://canlii.ca/t/gc72p>
14. American Nurses Association. *Principles for Nurse Staffing*. 3rd ed. ANA; 2020.
15. Clifford T. The developmentally and physically challenged patient. In: Schick L, Windle PE, eds. *PeriAnesthesia Nursing Core Curriculum: Preprocedure, Phase I and Phase II PACU Nursing*. 4th ed. Elsevier; 2021:113-117.
16. Godden B. Mixing patients: can this work? *J Perianesth Nurs*. 2011;26(4):281-283. <http://dx.doi.org/10.1016/j.jopan.2011.04.066>

ADDITIONAL READING

American Association of Critical Care Nurses. *AACN Standards for Establishing and Sustaining Healthy Work Environments: A Journey to Excellence*. AACN; 2005.

American Nurses Association. Nurse staffing. Accessed June 20, 2020. <https://www.nursingworld.org/practice-policy/work-environment/nurse-staffing/>

American Society of Anesthesiologists. Practice advisory for preanesthesia evaluation: an updated report by the American Society of Anesthesiologists Task Force on Preanesthesia Evaluation. *Anesthesiology*. March 2012;116:522-528.



- American Society of Anesthesiologists. Standards for postanesthesia care. Last amended October 23, 2019. Accessed June 20, 2020. <https://www.asahq.org/standards-and-guidelines/standards-for-postanesthesia-care>
- Apfelbaum JL, Silverstein JH, et al. Practice guidelines for postanesthetic care: an updated report by the American Society of Anesthesiologists Task Force on Postanesthetic Care. *Anesthesiology*. 2013;118:291-307. <https://doi.org/10.1097/ALN.0b013e31827773e9>
- Atkins DL, Berger S, Dugg JP, et al. Part II pediatric basic life support and cardiopulmonary resuscitation quality. *Circulation*. 2015;132:18(2). <https://www.doi.org/10.1161/CIR.0000000000000265>
- Blake N. The healthy work environment standards: ten years later. *AACN Adv Crit Care*. 2015;26(2):97-98. <https://doi.org/10.4037/NCI.0000000000000078>
- Clifford T. Perianesthesia nurse-sensitive indicators. *J Perianesth Nurs*. 2014;29(6):519-520. <https://doi.org/10.1016/j.jopan.2014.08.001>
- DeWitt L. Licensed practical nurses in the PACU. *J Perianesth Nurs*. 2009;24(6):356-361. <https://doi.org/10.1016/j.jopan.2009.10.004>
- Godden B. Nursing-sensitive indicators: their role in perianesthesia care. *J Perianesth Nurs*. 2012;27(4):271-273. <https://doi.org/10.1016/j.jopan.2012.05.007>
- GovTrack. Text of the registered nurse safe staffing act of 2015. Accessed June 20, 2020. <https://www.govtrack.us/congress/bills/114/hr2083>
- Halfpap E, Bracy K, Cornwell MA. PACU acuity. *J Perianesth Nurs*. 2013;28(3):e6. <https://doi.org/10.1016/j.jopan.2013.04.017>
- Iacono M. Perianesthesia staffing ... thinking beyond the numbers. *J Perianesth Nurs*. 2006;21 (5):346-352. <https://doi.org/10.1016/j.jopan.2006.07.009>
- Institute for Safe Medication Practices. Drawn curtains, muted alarms, and diverted attention lead to tragedy in the postanesthesia care unit. March 21, 2013. Accessed June 20, 2020. <https://www.ismp.org/newsletters/acutecare/showarticle.aspx?id=44>
- Kasprak J. California RN staffing ratio law. OLR Research Report. Connecticut General Assembly website. February 10, 2004. Accessed June 20, 2020. <https://www.cga.ct.gov/2004/rpt/2004-R-0212.htm>
- Mamaril ME, Sullivan E, Clifford TL, Newhouse R, Windle PE. Safe staffing for the post anesthesia care unit: weighing the evidence and identifying the gaps. *J Perianesth Nurs*. 2007;22(6):393-399. <https://doi.org/10.1016/j.jopan.2007.08.007>
- Reiter KL, Harless DW, Pink GH, Mark BA. Minimum nurse staffing legislation and the financial performance of California hospitals. *Health Serv Res*. June 2012;47(3 Pt 1):1030-1050. <https://doi.org/10.1111/j.1475-6773.2011.01356.x>
- White C, Pesut B, Rush KL. Intensive care unit patients in the postanesthesia care unit: a case study exploring nurses' experiences. *J Perianesth Nurs*. 2014;29(2):129-137. <https://doi.org/10.1016/j.jopan.2013.05.014>
- Wong M. Recent death of 17-year old from unmonitored tonsillectomy should never have happened. Physician-Patient Alliance for Health and Safety website. Accessed June 20, 2020. <http://ppahs.org/2013/02/recent-death-of-17-year-old-from-unmonitored-tonsillectomy-should-never-have-happened/#:~:text=Recent%20Death%20of%2017%2DYear%20Old%20From,Tonsillectomy%20Should%20Never%20Have%20Happened&text=In%20Willow%20Grove%2C%20PA%2C%2017,outpatient%20tonsillectomy%20was%20a%20success>
- Young G, Zavelina L, Hooper V. Assessment of workload using NASA task load index in perianesthesia nursing. *J Perianesth Nurs*. 2008;23(2):102-110. <https://doi.org/10.1016/j.jopan.2008.01.008>

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