



AORN Position Statement on Perioperative Safe Staffing and On-Call Practices

POSITION STATEMENT

This position statement articulates AORN's position regarding safe staffing and on-call practices for perioperative RNs based on the available research and changing dynamics in the perioperative setting including increasing patient acuity, technology advances, procedural complexity, and sustained implementation of evidence-based perioperative practice. It is intended to serve as a guide for perioperative RN administrators and operational leaders; however, it is the responsibility of each facility to determine specific policies and procedures which guide staffing decisions based on patient need and available resources to ensure safe staffing and on-call practices. The purpose of this position statement is to provide a framework for developing a staffing plan throughout the continuum of perioperative patient care, including the budgeting, planning and implementation of the plan. The staffing plan begins when the operative or other invasive procedure is scheduled and ends when the patient has completed the postoperative phase. Safe staffing practices provides strategies to accommodate safe perioperative patient care while promoting a healthy work environment for staff. This position statement includes an addendum with sample staffing formulas that can be individualized to design safe staffing and on-call practices.

AORN BELIEVES:

- The perioperative RN workforce should be considered a resource (ie, not only as an expense item) with the value of perioperative nursing care being reflected in improvements in patient outcomes.¹⁻⁴
- Budgeting for the perioperative workforce should not be oversimplified (ie, limited to Full time Equivalent (FTE) “head count” or payroll cost per unit of service), rather the budget calculation should be adjusted based on expected changes in service(s) and the staff mix required to deliver safe and effective perioperative care.²
- Patient safety and workforce safety must be the foundation for both perioperative staff planning (ie, budgeting and planning) and the implementation of the staffing plan (ie, daily implementation).
- The organization should have a perioperative staffing policy that describes the minimum number (see Table 1) and qualifications of nursing personnel that will be provided for operative or other invasive procedures.⁵
- Front line perioperative RNs should be empowered to participate in the development of staffing plans.^{1,6}
- The health care organization’s perioperative clinical staffing procedures should be based on
 - unique needs of each patient,^{5,7} (eg, patient acuity,⁸ monitoring needs [local-only anesthesia, moderate sedation])
 - procedural complexity and technological demands,⁷
 - professional competency (i.e., minimum qualification to function in a specified role independently),
 - professional proficiency (i.e., advanced knowledge and skill in particular areas of clinical practice),
 - skill mix of personnel,

- professional practice standards,^{3,9-12}
- health care regulations, accreditation requirements, and state staffing laws.⁵
- The organization's staffing procedures should be evaluated as part of the organization's quality improvement program through analysis of nursing outcomes relative to perioperative staffing patterns.^{1,2,13}
- Other implications for staffing and on-call plans include planning for
 - responding to fatigue that occurs among professionals – it is important to have a plan to mitigate fatigue-related risks for the perioperative team and patients (ie, have a fatigue management plan, provide uninterrupted breaks from continuous duty)^{1,14-21};
 - urgent and emergent patient needs during the organization's defined hours of operation (eg, added on cases, 24 hours 7 days per week);
 - relief for personnel when patient care needs extend beyond the scheduled staff hours;
 - how to determine direct and indirect caregivers required in the specific setting;
 - budgeting and operationalizing both productive (ie, direct patient care) and nonproductive (ie, PTO, participation in organizational committees, self-governance, maintenance of preference cards, and other activities required for safe, efficient management of patient care within the department) time; and
 - excluding orientees from staffing allocation until he or she has completed orientation and is identified as professionally competent to work independently.²²
- On-call staffing plans should
 - support perioperative teams to recognize fatigue as a risk to patient and employee safety rather than a sign of a worker's dedication to the job.²
 - minimize extended work hours²³⁻²⁵;
 - provide rest periods between scheduled shifts²¹;
 - maintain a qualified perioperative RN as circulator;
 - be provided in accordance with both standards of perioperative and perianesthesia nursing practice^{3,9,10};
 - not require perioperative team members to work in direct patient care for more than 12 consecutive hours in a 24-hour period and not more than 60 hours in a seven-day work week. All work hours (ie, regular hours and call hours worked) should be included in calculating total work hours.¹⁻³
- Strategies for developing a safe on-call schedule should include
 - provisions for off-duty periods of uninterrupted eight-hour sleep cycle, a break from continuous professional responsibilities, and time to perform individual activities of daily living⁴⁻⁶;
 - calculating to identify when it is cost effective to replace on-call staff with a scheduled shift (return on investment [ROI], cost analysis);
 - relieving perioperative team members who have worked hours on-call and is scheduled to work a subsequent shift;
 - making exceptions to the 12-hour limit only under extreme conditions (ie, internal or external disasters) and having an organizational policy which outlines the events that would create exceptions to the 12-hour limitation;
 - an orientation to on-call responsibilities that is accomplished using the preceptor system (ie, having an experienced perioperative RN serves as an immediate resource for the orientee.)

RATIONALE

Staffing (ie, budgeting, planning, and implementing the staffing plan) for the perioperative setting is dynamic in nature. Effective staffing plans require astute clinical judgment, critical thinking, and the perioperative RN administrator collaborating with support departments (eg, sterile processing, radiology, pathology, cytology) and roles (eg, anesthesia professionals, fellows, residents, private physician staff) who are responsible for providing interdisciplinary patient care within the perioperative care setting. Patients undergoing operative and other invasive procedures require perioperative nursing care provided by a perioperative RN, regardless of the setting. An effective staffing plan is flexible and responsive to short-term (ie, procedure to procedure) and long-term patient and organizational demands. Effective planning involves determining staffing needs, planning for the optimal staffing mix and number of staff members, budgeting for personnel costs, and scheduling personnel. Complexity of the procedure, individual team member proficiency, patient acuity (eg, ASA classification), patient monitoring requirements (eg, local or moderate sedation), trauma, or the use of complex technology (eg, laser, robotic, minimally invasive techniques) may require more diverse direct care personnel than the minimum number of staff members originally identified.

Patient safety is the primary focus of perioperative RNs and other health care professionals. One of the most important responsibilities of perioperative RN administrators and leaders is to develop an effective staffing plan that meets the demands of the individual practice setting, is agile and flexible to meet changing demands, and meets the safety needs of both patients and health care workers. The health care system is affected by increasing demand for health care, continued economic pressures, the nursing shortage, and financial ramifications from medico-legal issues. Perioperative RN administrators and leaders have an ethical and legal responsibility to maintain staffing levels that are appropriate for providing safe and effective patient-centered care^{1,16,26-28} while balancing financial responsibilities.^{1,2}

A systematic approach based on the operational needs of the department is required to develop a staffing plan. Identifying the hours of operation defined by the department or facility, in addition to the hours required to cover off-shift schedules (eg, holidays, nights, weekends), emergent and urgent procedures, and the number of OR and procedure rooms, is the initial step in determining staffing needs. Review of historical data regarding units of service (eg, minutes or hours of service, surgical cases) procedure volumes, procedure mix and complexity, technology demands, patient acuity, and projections for the coming year are essential for staff scheduling and budgeting.^{7,23-25}

Staffing plans must take into consideration the effect of **extended shift** and **extended work hours**. The role of nurse fatigue in the incidence adverse events has been demonstrated in the literature,^{14,15,17-21,29-45} and a reduction in fatigue can result in better patient outcomes. Requirements for on-call schedules are subject to facility type, location, nature of services provided, and patient population served. Using 12-hour shifts, although a staff satisfier, has been linked to an increase in patient care errors, and worker injuries such as needle-stick injuries, musculoskeletal injuries, and subsequent health issues from fatigue and sleep deprivation.^{23-25,41,46} Organizations can implement strategies to mitigate the risks associated with fatigue by implementing a fatigue management plan.^{1,14-21}

Table 1: Minimum Staffing

Perioperative Phase	Minimum Requirements	Comments
Scheduling	One clerical person under the supervision of a perioperative RN	Depending on the size of the facility, this activity may be combined with other business or clerical duties. Additional staff members may be required depending on volume and the hours that the scheduling office is open.
Preplanning	1 RN ^{1,2}	Depending on the setting and level of activity, this stage may require additional RNs and ancillary support. This may include preoperative telephone calls/interviews or planning for special supplies and equipment to meet patient needs.
Registration	Clerical person	The number of clerical staff members depends on the setting, level of activity, number of patients scheduled, patient acuity, and types of procedures—and may be combined with other tasks.
Day of Surgery		
Preoperative	1 RN ^{1,2}	The number of additional RNs should be based on the number of patients, the number of ORs/procedure rooms, patient acuity, types of procedures, complexity/intensity of patient care requirements, time required to perform tasks, a patient’s age-specific needs, and the average time for individual patient preparation. Licensed practical nurses (LPNs) and unlicensed assistive personnel (UAP) may be included in preoperative staffing plans. Unlicensed assistive personnel may be assigned to help with delegated patient care tasks as determined by the RN and according to individual state boards of nursing scope of practice and other local, state, and federal regulations. ³
Intraoperative	1 RN per patient per OR in the role of the RN circulator. ⁴ 1 scrub person per patient per room; may be RN, surgical technologist, or LPN. In some circumstances, a scrub person may not be required.	Additional staff members, with appropriate competencies, may be used as appropriate for the following: <ul style="list-style-type: none"> • moderate sedation—1 RN dedicated to monitoring the patient and separate from the dedicated RN circulator; • local anesthesia—depending on patient needs, nursing assessment, and type of procedure, 1 RN may be needed to monitor the patient in addition to the RN circulator; • complex surgical procedures and patients with compound needs may require an additional RN circulator(s) and scrub person(s); • technological demands (eg, lasers, robotics, audiovisual equipment, auto transfusion device); • first assist requirements. <i>Note: See formula for calculating additional staffing.</i>

<p>Postoperative Phase I</p>	<p>Two registered nurses, one of whom is a[n] RN competent in Phase I postanesthesia nursing, are in the same room/unit where the patient is receiving Phase I level of care at all times.² <i>The expectation is that the Phase I perianesthesia nurse is at the bedside providing direct patient care. The second RN should be able to directly hear a call for assistance and be immediately available to assist.^{2, p.35} These staffing recommendations should be maintained during on-call situations.^{2, p.35}</i></p> <p>Staffing will reflect the American Society of PeriAnesthesia Nurses' (ASPAN's) "Patient classification/recommended staffing guidelines."</p>	<p>Phase I level of care^a may include but are not limited to:</p> <p>Class 1:2—1 nurse to 2 patients who are</p> <ul style="list-style-type: none"> • 1 unconscious, hemodynamically stable, without artificial airway, and over the age of 8 years; and 1 conscious, stable, and free of complications. • 2 conscious, stable, and free of complications. • 2 conscious, stable, 8 years of age and under, with family or competent support staff member present.² <p>Class 1:1—1 nurse to 1 patient</p> <ul style="list-style-type: none"> • At the time of admission, until the critical elements^b are met. • Unstable airway.^c • Any unconscious patient 8 years of age and under. • A 2nd nurse must be available to assist, as necessary.² <p>Class 2:1—2 nurses to 1 patient</p> <ul style="list-style-type: none"> • 1 critically ill, unstable, complicated patient.² • Additional staff members may include support staff. Unlicensed assistive personnel may be assigned to help with delegated patient care tasks according to local, state, and federal regulations.
<p>Postoperative Phase II</p>	<p>"Two competent personnel, one of whom is a[n] RN competent in Phase II postanesthesia nursing, are in the same room/unit where the patient is receiving Phase II level of care. A[n] RN must be in the Phase II PACU at all times while a patient is present."²</p> <p>Staffing will reflect ASPAN's "Patient classification/recommended staffing guidelines."</p>	<p>Phase II level of care^a examples may include but are not limited to</p> <p>Class 1:3—1 nurse to 3 patients</p> <ul style="list-style-type: none"> • Over 8 years of age. • 8 years of age and under with family present.² <p>Class 1:2—1 nurse to 2 patients</p> <ul style="list-style-type: none"> • 8 years of age and under without family or support staff member present. • Initial admission of patient postprocedure.² <p>Class 1:1—1 nurse to 1 patient</p> <ul style="list-style-type: none"> • Unstable patient of any age requiring transfer to a higher level of care.² <p>Additional staff members may include support staff. Unlicensed assistive personnel may be assigned to help with delegated patient care tasks according to local, state,</p>

<p>Postoperative Extended Observation</p>	<p>“Two competent personnel, one of whom is a[n] RN possessing competence appropriate to the patient population, are in the same room/unit where the patient is receiving extended observation level of care. The need for additional RNs 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”^{2, p.37} Staffing will reflect ASPAN’s “Patient classification/recommended staffing guidelines.”</p>	<p>Extended observation level of care^a examples may include but are not limited to</p> <ul style="list-style-type: none"> class 1:3/5—1 nurse to 3 to 5 patients awaiting transportation home; patients with no caregiver, home, or support system; patients who have had procedures requiring extended observation/intervention (ie, potential risk for bleeding, pain management, PONV management, removing drains/lines); and patients being held for an inpatient bed.² <p>Additional staff members may include support staff. Unlicensed assistive personnel may be assigned to help with delegated patient care tasks according to local, state, and federal regulations.</p>
<p>Discharge from Service</p>	<p>An RN assesses the discharge readiness of the patient and provides a comprehensive handoff to the receiving health care professional and organizes safe transfer of the patient.</p>	<p>Continued nursing care may be required during transfer from postoperative care.</p> <p>The professional nurse determines the mode, number, and competency level of accompanying personnel based on patient need (eg, patient stability, intended disposition [higher level of care], distance the patient needs to travel, time it will take, and any required monitoring).</p> <p>The professional nurse ensures the availability of appropriate transportation of the patient from the institution.</p> <p>An appropriate means of transportation from a free-standing facility to a full-service hospital will be used in emergency situations.</p> <p>A professional nurse should accompany patients who require evaluation (eg, continuous cardiac monitoring), or are at risk of cardiopulmonary compromise during transport.</p> <p>require evaluation and/or treatment during transport (ie, vasopressor infusions or pulse oximetry).⁵</p>
<p>Postoperative Follow-Up</p>	<p>An RN completes discharge follow-up.</p>	<p>Ambulatory surgery patients must be reassessed postoperatively. The time frames for reassessment are based on patient needs and the care, treatment, and services provided. Individual organizations should develop policies and procedures regarding the mechanism chosen (eg, postoperative telephone calls) based on the patients it serves and the ser-</p>

Notes and References for Table 1

^aPhases of postanesthesia care were developed by the American Society of PeriAnesthesia Nurses. 2019-2020 Perianesthesia Nursing Standards, Practice Recommendations and Interpretive Statements. Cherry Hill, NJ: American Society of PeriAnesthesia Nurses; 2020.

^bCritical elements are defined as:

- ◇ Report has been received from the anesthesia professional, questions have been answered, and the transfer of care has taken place.
- ◇ Patient has a secure airway.
- ◇ Initial assessment is complete.
- ◇ Patient is hemodynamically stable.

^cExamples 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

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GLOSSARY

Direct care: Time spent providing hands-on care to patients. Individuals who provide direct patient care include registered nurses, surgical technologists, nursing assistants, orderlies, RN first assistants, and surgical assistants.

Extended shift: A shift that extends beyond the expected end time of that shift, usually in response to clinical needs in the perioperative environment.

Extended work hours: more than 12 consecutive hours of work.

Indirect care: Time spent on activities that support patient care and direct care providers but does not involve hands-on patient care activities. Indirect care providers include the director, manager, charge nurse, educator, environmental services personnel, instrument processing personnel, materials management personnel, and clerical and business personnel.

Nonproductive hours: Time not directly associated with patient care activities (ie, down time) and paid hours not worked. Nonproductive hours include benefit hours (eg, vacation, sick time, funeral leave, education, holiday) in budgeting processes.

Operating room: A room within the surgical suite that meets the requirements of a restricted environment and is designated and equipped for performing operative and other invasive procedures.

Procedure room: A room designated for the performance of procedures that do not require a restricted environment but may require the use of sterile instruments or supplies.

Productive hours: Time spent working (ie, actual hours worked). Productive hours include direct and indirect hours, and worked hours are those that are needed to staff the unit.

RN Circulator: A role performed by the perioperative registered nurse, without sterile attire, during the preoperative, intraoperative, and the postoperative phases of surgical patient care. In collaboration with the entire perioperative team, the RN circulator uses the nursing process to provide and coordinate the nursing care of the patient undergoing operative or other invasive procedures.

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ADDENDUM INTRAOPERATIVE STAFFING FORMULA FOR TOTAL NUMBER OF FULL TIME EQUIVALENTS (FTEs)

- Step 1—Calculate total staff coverage hours per week.
- Step 2—Calculate total working hours per week.
- Step 3 – Calculate number of clinicians needed per room
- Step 4—Calculate basic FTEs.
- Step 5—Calculate benefit relief FTEs.
- Step 6—Calculate total minimum direct care staff members.
- Step 7—Calculate indirect care staff members.
- Step 8—Calculate call replacement relief.
- Step 9—Calculate the orientation staffing.

The Number of Personnel per Room

Generally, there are **at least** two staff members for every surgical or other invasive procedure: one RN in the circulator role and one scrub person. Additional team members are often required depending on patient factors (eg, acuity) and procedure factors (eg, procedural complexity). The scrub position role can be filled by an RN, a surgical technologist, or LPN who is trained and competent in the scrub role. Begin with two staff members per room and make facility- and patient-specific modifications to this number using facility data and projected needs related to changes in procedure and patient complexity planned for the budget year.

The following calculation can be used to determine a 67%:33% (2:1) RN-to-technologist ratio using 2.5 people per room as an example:

RNs per room: by multiply $2.5 \times 0.67 = 1.7$ RNs Technologists per room by multiplying $2.5 \times 0.33 = 0.8$ technologists

Indirect Staff Calculation

For the purposes of this calculation, indirect staff members include, but are not limited to, the budgeted positions of surgical services director, clinical nurse manager, charge nurse, perioperative educator, schedulers, administrative assistant, nursing assistants, and environmental services personnel as appropriate. The number of indirect care staff members will vary according to function, this example uses one indirect caregiver to two direct caregivers.

Relief Replacement

Benefit hours (ie, nonproductive hours) are hours such as vacation time, holiday time, available sick time (whether paid or unpaid), education days, other duties and training required by the organization (eg, in-service attendance, mandatory annual competency requirements, committee, or conference attendance) and any other time that personnel policies determine an employee might take off. The number of benefit hours is proportionate to the amount of vacation time and the number of long-term employees. Some organizations use an established percentage to calculate benefit hours. In the OR, benefit hours also should include breaks and lunches, unless the OR ceases work during those times.

When determining relief for lunch, it is necessary to add approximately 15 minutes to the allotted time at either end to allow for nurse-to-nurse report about what has transpired during the procedure in progress. It may take less than seven minutes for the RN circulator to report to the relief nurse, but relief of the scrub person needs to include time needed to scrub, gown, and glove, so 15 minutes is average.

When computing relief for breaks and lunches, the number of minutes is multiplied by 260 days (ie, 52 weeks multiplied by five days per week).



Call Hours Replacement Calculation

The maximum number of call hours is determined by identifying the number of shifts multiplied by the number of hours multiplied by two FTEs (this may be increased if the call team is more than two people). The actual hours on-call personnel are called in to work per year divided by 2,080 equals the replacement FTEs for call time worked (Table 1).

Table 2. Sample Call Replacement Calculation

Call coverage	Maximum possible hours	Historical usage in hours
	<i>Hours x staff = total</i>	<i>Total</i>
260 night shifts	$8 \times 2 = 4,160$	3,342
52 weekends	$48 \times 3 = 7,488$	5,256
12 holidays	$24 \times 3 = 864$	689
Total	12,512	9,287 ^a

^a The difference between the maximum possible call hours and actual usage of call hours is 3,225 hours worked. The 3,225 call hours worked per year divided by 2,080 hours (ie, one full time equivalent [FTE]) equals 1.55 FTE replacement for call time worked.

Orientation for New Staff Members

Calculating the orientation time for new employees depends on several factors, including, but not limited to, proficiency of the new hire (novice versus experienced in the OR), the size and type of OR, individualized orientation plan required for position assignment (eg, single-specialty versus all specialties).

Example Calculation

STEP 1 – DETERMINE OPERATING HOURS TO BE STAFFED

An OR suite has eight rooms, which are to be staffed as follows:

- 8 rooms, 7 AM to 3 PM, Monday through Friday
- 2 rooms, 3 to 6 PM, Monday through Friday
- 1 room, 6 PM to 7 AM, seven days per week
- 1 room, 7 AM to 6 PM, Saturday and Sunday

Step 2—Calculate Total Staff Coverage Hours Per Week

Number of rooms multiplied by number of hours per day multiplied by number of days per week equals total hours staff coverage hours per week.

ROOMS x # HOURS/DAY x # DAYS/WEEK

- $8 \times 8 \times 5 = 320$
- $2 \times 3 \times 5 = 30$
- $1 \times 13 \times 7 = 91$
- $1 \times 11 \times 2 = 22$

Total staff coverage hours per week = 463



STEP 3 – Calculate the Number of Personnel (RN Circulators & Scrubbed Personnel)

The basic personnel requirements (RN circulator and one scrubbed person) are two per room (for budgeting) and two per procedure (for operationalization). While this number is a good starting point, patient factors (eg, acuity, bariatric), technology (eg, laser, MIS), and procedural complexity modifies this general personnel requirement. ASA classification, resources needed to operate technology in the OR, and procedural complexity modifiers can be used to estimate the actual number of personnel needed in the specific organization by analyzing historical procedures.⁷ For this example, 2.5 is assumed as needed per room; however, more than 2.5 may be indicated using an assessment of historical staffing needs, use of call-back and agency staff, and any service changes (eg, a more advanced trauma center designation, adding procedures which are more complex) that are planned.

Step 4—Calculate Total Working Hours Per Week

Total hours (from step 2) to be staffed per week multiplied by number of people per room (from step 3) equals total working hours per week.

$$463 \text{ hours} \times 2.5 = 1,157.5 \text{ total working hours per week}$$

Next, determine the working hours per week using a 67%:33% RN-t- technologist ratio. Determine the number of RNs per room by multiplying $2.5 \times .67 = 1.7$ RN Determine the number of technologists per room by multiplying $2.5 \times .33 = 0.8$ technologists

$$\text{RNs: } 1.7 \times 463 \text{ hours} = 787.1 \text{ total RN working hours per week}$$

$$\text{Surgical technologists: } 0.8 \times 463 = 370.4 \text{ total surgical technologist hours per week Total working hours per week} = 1,157.5$$

Step 5— Calculate Basic FTEs

Total working hours per week divided by 40 hours worked per week equals basic FTEs. $1,157.5 \div 40 = 28.9$ basic FTEs

Next, determine the basic RN and surgical technologist FTEs for a 67%:33% RN-to-technologist ratio.

$$\text{RNs: } 787.1 \text{ hours} \div 40 = 19.7 \text{ basic RN FTEs}$$

$$\text{Surgical technologists: } 370.4 \div 40 = 9 \text{ basic surgical technologist FTEs}$$

Step 6—Calculate Benefit Relief FTEs

Determine the average number of benefit hours per employee based on the rates provided at the facility.

$$\text{Vacation hours per year} = 100$$

$$\text{Holiday hours per year} = 56$$

$$\text{Available sick hours per year} = 96$$

$$15 \text{ minute break} \times 260 \text{ days} \div 60 \text{ minutes} = 65 \text{ hours}$$

$$45 \text{ minute lunch (30 minutes for meal} + 15 \text{ minutes for report)} \times 260 \text{ days} \div 60 \text{ minutes} = 195 \text{ hours}$$

$$\text{Total benefit hours} = 512 \text{ per FTE}$$

Basic FTEs multiplied by benefit hours per FTE per year divided by 2,080 hours equals relief FTEs.

$$28.9 \times 512 \text{ hours} \div 2,080 = 7.1 \text{ relief FTEs}$$

Next, determine the RN and surgical technologist relief FTEs for a 67%:33% RN-to-technologist ratio.

$$\text{RNs: } 19.7 \times 512 = 10,086.4 \div 2,080 = 4.8 \text{ RN relief FTEs}$$

$$\text{Surgical technologists: } 9 \times 512 = 4,608 \div 2,080 = 2.2 \text{ surgical technologists FTEs}$$



Step 7—Calculate Total Minimum Direct Care Staff Members

Basic FTEs added to relief FTEs equals total minimum direct care staff members.

$$28.9 + 7.1 = 36 \text{ FTEs}$$

Next, determine the RN and surgical technologist direct care FTEs for a 67%:33% RN-to technologist ratio.

$$\text{RN: } 19.7 \text{ basic FTEs} + 4.8 \text{ benefit relief FTEs} = 24.5 \text{ RN FTEs}$$

$$\text{Surgical technologist: } 9 \text{ basic FTEs} + 2.2 \text{ benefit relief FTEs} = 11.2 \text{ surgical technologist FTEs}$$

Step 8—Calculate Indirect Care Staff Members

$$1 \text{ indirect caregiver per } 2 \text{ direct caregivers} = 1.25 \times 463 \text{ hours per week} = 578.8 \div 40 = 14.5 \text{ FTEs}$$

Next, calculate indirect care staff member benefit hours

$$512 \text{ benefit hours} \times 14.5 = 7,424 \div 2,080 = 3.6 \text{ relief FTEs}$$

Then, calculate indirect care staff members

$$3.6 \text{ relief FTEs} + 14.5 \text{ indirect caregiver FTEs} = 18.1 \text{ indirect care staff members}$$

Step 9—Calculate Call Replacement Relief

Calculate call hours: Multiply the call coverage periods, times the hours per period, times the number of people needed per call coverage period minus the historical usage hours.

$$260 \text{ night shifts} \times 8 \text{ hours} \times 2 \text{ people} = 4,160 - 3,342 = 818$$

$$52 \text{ weekends} \times 4 \text{ hours} \times 3 \text{ people} = 7,488 - 5,256 = 2,232$$

$$12 \text{ holidays} \times 24 \text{ hours} \times 3 \text{ people} = 864 - 689 = 175 \text{ Total call hours} = 3,225$$

Next, divide the total call hours by 2,080 (ie, one FTE) to obtain the FTEs required for call replacement.

$$3,225 \div 2,080 = 1.55 \text{ total call replacement FTEs}$$

Step 10—Calculate the Orientation Staffing

If four people with experience were expected to be hired for a year and each receives 12 weeks of orientation, use the following calculation:

$$4 \text{ staff members} \times 40 \text{ hours per week} \times 12 \text{ weeks} = 1,920 \text{ hours of orientation} \div 2,080 = 0.9 \text{ FTEs for orientation}$$

TOTAL NUMBER OF FTEs

Based on 100% utilization, the total number of FTEs calculated in this example is:

Direct caregiver RNs: 24.5 FTEs

Direct caregiver surgical technologists: 11.2 FTEs

Indirect caregivers: 18.1 FTEs

Call replacements: 1.5 FTEs

Orientation FTEs: 0.9 FTEs

Total: 56.3 FTEs

PERIANESTHESIA CARE UNIT (PACU) STAFFING FORMULA

There are no standardized staffing formulas at this time for calculating perianesthesia staffing in



the PACU. Neither the American Society of PeriAnesthesia Nurses nor AORN has a recommended staffing formula at this time. Refer to Table 1 for PACU staffing recommendations.

PUBLICATION HISTORY

AORN guidance statement: perioperative staffing and AORN guidance statement: safe on-call practices in perioperative practice settings originally published in *Standards, Recommended Practices, and Guidelines, 2005 edition. Reprinted May 2005, AORN Journal. Reformatted September 2012 for publication in Perioperative Standards and Recommended Practices, 2013 edition.*

AORN Position Statement on Operating Room Staffing Skill Mix for Direct Caregivers and AORN Position Statement on Safe Work/On-Call Practices Approved by the House of Delegates, April 2005.

Reaffirmed by the Board of Directors, August 2012.

*Combined document, **AORN Position Statement on Perioperative Safe Staffing and On-call Practices.** Approved by the House of Delegates, April 2014*

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