GUIDANCE STATEMENT

SAFE STAFFING IN THE PERIOPERATIVE SETTING

OVERVIEW

THIS DOCUMENT

This statement should be read in conjunction with the **AORN Guidance Statement: Perioperative Staffing** which provides a framework for developing a staffing plan throughout the continuum of perioperative patient care.

This guidance statement provides for those cultural and specific elements which are not present in the AORN documentation that apply specifically to the New Zealand context.

PURPOSE

To ensure that staffing enables safe and effective patient care

SCOPE

All perioperative staff.

GENERAL PRINCIPLES

The standard of nursing practice, which delivers quality care outcomes, is dependent on variables that include; environmental factors, surgical services, patient acuity and staffing resources.

Factors affecting staff numbers required for each perioperative setting may include but are not limited to:

1. Environmental Factors:
    a. Layout of perioperative service
    b. Number of operating/procedure rooms
    c. Number of services planned in locations remote to the main perioperative suite.
    d. Capacity of pre-anesthetic areas
    e. Capacity of PACU
    f. Work flow patterns
    g. Extent of technology utilisation

2. Surgical Services:
    a. The number of sessions utilised.
    b. Type of service delivery.

c. Type of specialties.
d. If emergency surgery cover is required.
e. Provision of on-call service
f. Quick turn over lists.

3. Patient Acuity
    a. Complexity of surgery/procedure performed
    b. Acute and elective priorities

4. Staff Resources/Skill mix of nurses
    a. Part time/full time staff.
    b. Number of orientating/new nurses/ENs/ who require supervision.
    c. Undergraduate/student nurses who require supervision
    d. Use of casual/agency staff
    e. Availability of Registered Nurse First Surgical Assistant – RNFSA

5. Responsibility for additional services, for example:
    a. Acute pain management services
    b. Central Supply Dept.
    c. Pre-admission clinic
    d. Day Surgery Unit

The PNC supports the AORN Position Statement 'Operating Room Staffing Skill Mix for Direct Caregivers' that OR staffing skill mix ratios must ensure that the core activities of perioperative nursing care (i.e. assessment, diagnosis, outcome identification, planning implementation, evaluation) are completed by a registered nurse competent in perioperative practice. [1]

The following recommended practice is a minimum requirement and previous variables cited in general principles must be taken into consideration.

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RECOMMENDED PRACTICE

a. Management

An RN with appropriate qualifications and experience in perioperative nursing shall be designated with management responsibility for the service. Qualifications and experience shall relate specifically to the perioperative area of nursing or management. This includes but is not limited to: operating room nursing, anaesthetic nursing and PACU nursing or tertiary management qualifications. The title, remuneration and support structure will reflect both the responsibility and accountability inherent in this position [2]

Health care facilities with large services, diverse or additional areas of responsibility will require a structure which supports a more senior management position. Administration time and assistance shall be provided to support this position. [2]

Where multiple operating suites or sites exist, a nurse manager is required for each perioperative service or site, responsible to the service manager. Administrative time and assistance shall be provided to support these positions. [2]

b. Educational Staff

A qualified or competently appropriate registered nurse is responsible for coordination, development and provision of continuing education. According to the needs of the health care facility this person may be responsible for, but not limited to, the following areas:

a. Induction, orientation and in-service programs
b. Preceptorship programs
c. The education and supervision of undergraduates, postgraduate nursing students, medical students and other personnel visiting the operating suite.
d. Outcome based quality improvement programs
e. Policy and procedure writing and updating.

It is essential that appropriate support is provided for new graduate nurses, ENs and new members of staff.[2]

Teaching and administration time and support shall be provided for this position [2]

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c. Admission and Discharge Areas:

Nursing staff levels shall be allocated at a level of no more than 1:4 nurse: patient ratio based on the following criteria:

a. Patients undergoing nursing admission
b. Patients awaiting transport home
c. Patients who have undergone procedures requiring extended observation [2,3,4]

d. Intra – operative Area:

a. Patients undergoing a general anaesthetic:

The minimum number of nursing staff for an operating room is three:

One instrument nurse and two others to include circulating, anaesthetic and/or patient care duties
OR
One instrument nurse and two others to include one circulating nurse in the presence of a registered anaesthetic technician who remains in the OR for the entirety of the surgery).

Two (2) nurses are required for count purpose, one of whom must be a RN. [6]

The presence of a Registered Nurse First Surgical Assistant – RNFSA is in addition to the minimum number of nursing staff, the RNFSA is an additional perioperative role and should not perform the scrub role concurrently.

The Nursing Council of New Zealand has adapted the Australian College of Operative Nurses (ACORN) definition (2008) to describe the first surgical assistant role:

The first surgical assistant practises perioperative nursing and has acquired the knowledge, skills and judgment necessary to assist the surgeon, through organised instruction and supervised practice. The first surgical assistant functions interdependently with the surgeon during the intraoperative phase of practice. The first surgical assistant does not concurrently function as an instrument nurse.

b. Patients undergoing sedation:

The minimum number of nursing staff for an operating room is three:

One instrument nurse and two others to include circulating, anaesthetic and/or patient care duties
OR
One instrument nurse and two others to include one circulating nurse in the presence of a registered anaesthetic technician who remains in the OR for the entirety of the surgery).

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c. Patients undergoing a local anaesthetic:

As for (a), however when a scrub nurse is not required**,** two peri-operative staff are required, one of whom shall be a RN [2]

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Post Anaesthetic Care Unit (PACU)

A registered nurse trained in recovery area care should be in charge of the PACU area.[5]

PACU – Stage 1 – Immediate Post-Operative Patient Care

Stage 1 recovery includes physiologically unstable patients, and those patients who potentially could become unstable and are consequently at risk of harm. [7]

When a patient is present in the Stage 1 area two (2) registered nurses, one of whom is a RN competent in Phase I post anesthesia nursing, must be present in the same unit where the patient is receiving Phase I level of care [7]

An appropriate number of RNs are required to meet the needs of the patient during the immediate postoperative phase. [2]

Trainee nurses and registered nurses who are not experienced in the care of patients recovering from anaesthesia must be supervised. [5]

2:1 Nurse – patient ratio will be maintained when patients are critically ill, unstable, complicated patients require resuscitation, or whose condition deteriorates and requires emergency intervention. [2]

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1:1 Nurse -Patient ratio will be maintained for:

a. At the time of admission, until the critical elements are met i.e. report has been received from the anaesthesia care provider, questions answered, and the transfer of care has taken place, patient has a secure airway, initial assessment is complete and patient is haemodynamically stable. [5]
b. Unconscious patients
c. Patients requiring airway management
d. Intubated patients, including ventilated and non-ventilated (unless the PACU nurse has experience with patients intubated with an endotracheal tube an Anaesthetist must also stay with the patient).
e. Infusions requiring constant monitoring of vital signs e.g. inotrope's
f. Following major procedures until stable.
g. Patients following a severe complication e.g. major blood loss, respiratory/ cardiac arrest
h. Unconscious patient under 8 years
i. Patients requiring constant attention to maintain safety e.g. frequent tracheal suctioning, confused/agitated patient. [2,5]

A second nurse must be available to assist if necessary [2]

PACU – Stage 1 – Stabilisation Phase

1:2 Nurses – patient ratio, taking into consideration:

a. Both patients are conscious and stable. [2]
b. One unconscious, stable, without artificial airway, and over the age of 8 years; and one conscious, stable, and free of complications, over 8 years of age.[2]
c. Two conscious, stable, 8 years of age and under, with family or competent support staff member present.[2]

A competent and experienced PACU trained RN, whilst caring for a patient may also supervise a nurse in training [2]

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PACU – Stage 2

Stage 2 recovery area is defined as the secondary or step down area where there is continued nursing care and observation of the patient who has completed stage 1 recovery [2]

When one patient is present a minimum of two (2) nurses are required, one of whom must be a competent PACU RN, [2]

Nursing staff ratio in stage 2 areas shall be maintained at a minimum of 1:3 nurse-patient ratio for the following criteria:

a. When all patients are stable and over 8 years of age.

b. A paediatric patient over eight (8) years, with a family member or care giver present. [2]

Nursing staff ratio in stage 2 areas shall be maintained at a minimum of 1:2 nurse-patient ratio for the following criteria:

a. 8 years of age and under without family or support staff member present [2]

A higher ratio of nurses may be required if patient acuity increases.

PACU – Stage 3

Nursing staff ratio in stage 2 areas shall be maintained at a minimum of 1:3-5 nurse-patient ratio for the following criteria:

a. Patients awaiting transportation home
b. Patients with no caregiver.
c. Patients who have had procedures requiring extended observation/intervention (ie, potential risk for bleeding, pain management, postoperative nausea, vomiting).
d. Patients being held for an inpatient bed.[2]

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Two competent personnel, one of whom is a[n] RN must be in the same 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, patient census, and the physical facility. 2

Intraoperative Staffing Formula

Direct staff patient care calculation

AORN Guidance Statement: Perioperative Staffing 2005

■ **Step 1**—Number of rooms multiplied by number of hours per day multiplied by number of days per week equals total hours to be staffed per week.

■ **Step 2**—Total hours to be staffed per week multiplied by number of people per room equals total working hours per week.

■ **Step 3**—Total working hours per week divided by 40 hours equals basic full-time equivalents (FTEs).

■ **Step 4**—Calculate benefit relief.

■ **Step 5**—Basic FTEs multiplied by benefit hours per FTEs per year divided by 2,080 hours equals relief FTEs.

■ **Step 6**—Basic FTEs added to relief FTEs equals total minimum direct care staff members.

■ **Step 7**—Calculate indirect care staff members.

■ **Step 8**—Calculate call replacement relief.

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Relief replacement

■ Benefit hours (i.e., nonproductive hours) are hours such as annual leave, holiday time, available sick time (whether paid or unpaid), education days, 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 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 circulating nurse 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).

■ Nonproductive time for orienting new staff members also needs to be included.

Safe on–call practices

Health care organisations are responsible for developing and implementing staffing policies and procedures relevant to individual practice settings.

The employer must take all practical steps to prevent harm occuring to employees from the way work is organised.

Policies and procedures must comply with NZ employment law including Health and Safety in Employment Act 1992 and Employment Relations Amendment Act 2008.

Call hours replacement calculation [6]

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The maximum number of call hours is determined by identifying the number of shifts multiplied by the number of hours multiplied by two FTEs. 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.

References

1. AORN Position Statement – Operating Room Staffing Skill Mix for Direct Caregivers 2005
2. ACORN Standards 2010-2011 – staffing requirements –Standard 19
3. Newhouse R P, Johantgen M, Pronovost P J, Johnson E Perioperative Nurse and Patient Outcomes; mortality, complications and length of stay AORN 2005:81(3) pg 508-528
4. Joanna Briggs Institute. Management of the Day Surgery Patient. Best Practice Supplement 2330; 1:1-4
5. PS04 Recommendations for the Post-Anaesthesia Recovery Room Australian and New Zealand College of Anesthetists, ABN 82 055 042 852, 2006
6. AORN Guidance Statement: Perioperative Staffing 2005
7. Hatfield A & Tronson M (2009) *The Complete Recovery Room Book - Fourth Edition* Oxford, New York, Oxford University Press