Resource 1: Client Assessment, Data Collection and Management in all Phases of the PeriAnesthesia Environment

The PeriAnesthesia nurse recognizes that clients are experts of their own lives and collaborates with clients and their families and/or substitute decision makers to provide a client- and family- centered care environment (Institute for Patient- and Family- Centered Care, 2012). Client safety and client experience are fundamental to the planning and delivery of competent, compassionate and safe PeriAnesthesia/Perioperative nursing care (National Research Corporation, 2013; Registered Nurses Association of Ontario, 2006).

During the late 1960's in Canada, two legal cases specific to PeriAnesthesia nursing and the perianesthesia environment (*Laidlaw versus Lions Gate Hospital,* as cited in Dohm, 1969; *Krujelis versus Esdale,* as cited in Gould, 1971) brought forward "statements that are not disputed" related to perianesthesia client assessment and management. In addition, Accreditation Canada requires an interprofessional team (IPT) approach to provide initial and ongoing assessment and management of perianesthesia clients, up to and including discharge (Accreditation Canada, 2014a).

Therefore, it is necessary for perianesthesia clients to receive the appropriate initial and ongoing assessment and management for the appropriate perianesthesia environment from the PeriAnesthesia nurse, up to and including discharge, according to established evidence-based criteria (See Resource 5: Discharge Criteria from all PostAnesthesia Phases).

The PeriAnesthesia nurse uses clinical experience, nursing science and best available evidence to analyze and integrate knowledge about clients' physiology, pathophysiology, health history and clients' and family preferences to develop individualized plans of care. Assessment and client care interventions are ongoing and specific to each perianesthesia phase. The goal of the assessment is to establish a current baseline of physiological functions to assist in trending the recovery progress to anticipate potential postanesthesia complications. Clients' responses to anesthesia and surgery are evaluated continuously and used as a basis to revise the plan of care until the client reaches the desired state of physiological and psychological health.

Client status must be monitored continually and recorded using evidence-based discharge criterion, specific to each postanesthesia phase of recovery, as an indication that the client is reaching readiness to be transferred to the next perianesthesia phase of care. (See Resource 5 for further information regarding Discharge Criteria in the PostAnesthesia Phases)

I. PreAnesthesia Phases

1. PreOperative/PreAdmission Phase

PreOperative/PreAdmission clinics promote client-centered care, and are associated with reduced risk of cancellation on the day of surgery, improved perioperative safety, improved outcomes and increased client satisfaction (Mulcahy, & Pierce, 2011; Gilmartin, Chin, & Leonard, 2009; Swart, & Houghton, 2010).

The goals of preoperative/preadmission assessment and testing clinics include, but are not limited to, screening for perioperative risks, optimization of health status, establishing baseline of preoperative/preadmission functions and planning and coordination of client care throughout the perioperative period (Muckler, Vacchiano, Sanders, Wilson, & Champagne, 2012).

1.1 Client evaluation should take place sufficiently in advance of the scheduled surgery to allow for the integration of an appropriate evaluation, necessary testing, access to consultation services, and

thorough client education to properly prepare the client for surgery (American Society of Anesthesiologists, 2012).

1.2 Assessment, nursing diagnosis, planning, implementation and evaluation of client care occur based on initial and ongoing assessment and management criteria. Telephone and telemedicine preoperative/preadmission assessment options should be available based on client selection criteria including factors such as client's age, physical and physiological condition, type and invasiveness of surgical procedure and client's consent (Digner, 2007). These options should not be restricted to distance from the institution where the procedure will take place.

1.3 The PeriAnesthesia nurse conducts an initial interview with a focus on:

1.3.1 Social, emotional and cultural history
- 1.3.1.1 Name preferences
- 1.3.1.2 Primary language and the need for an interpreter
- 1.3.1.3 Religious/spiritual needs and practices
- 1.3.1.4 Perception and understanding of surgery (Ross-Kerr, & Wood, 2012)
- 1.3.1.5 Emotional health and the ability to recognize anxiety and stress
- 1.3.1.6 Coping resources and family support (Ross- Kerr, & Wood, 2012)
- 1.3.1.7 Cognitive ability of the client and the caregiver.

1.3.2 Health history to identify pre-existing condition(s) and illness(es) that may influence client's response to anesthesia and surgery
- 1.3.2.1 Allergies and sensitivities (e.g., latex)
- 1.3.2.2 Functional status and ability to engage in physical activities, mobility limitation including restricted limb (Rivera, Nguyen, Martinez-Osorio, McNeill, Ali, & Mansi, 2012)
- 1.3.2.3 Smoking
- 1.3.2.4 Alcohol ingestion, substance use and abuse
- 1.3.2.5 Diet, nutritional status and weight changes
- 1.3.2.6 Pediatric populations assessed for birth history, developmental stages, gestational age and parent/child interactions
- 1.3.2.7 Home use of non-invasive positive pressure ventilation (NIPPV) e.g., CPAP, BIPAP or apnea monitors
- 1.3.2.8 Medical prosthesis(es) or implant(s)
- 1.3.2.9 Medical conditions associated with increased surgical risk
  - 1.3.2.9i. Bleeding disorders
  - 1.3.2.9 ii. Disease of the heart, respiratory system, liver, renal system, or immunological disorders, chronic pain, endocrine disorders, and/or obesity (Ross- Kerr, & Wood, 2012).
- 1.3.2.10 Medications including dose, route, and frequency of administration of prescriptions, over-the-counter and/or complementary and alternative medicines (CAM) (Accreditation Canada, 2013; Safer Healthcare ***Now!*** 2011b).
- 1.3.2.11 Previous surgeries
- 1.3.2.12 Laboratory and diagnostic testing
- 1.3.2.13 Infectious disease and antibiotic resistant organism (ARO) screening and assessment:
  - 1.3.2.13i. History of travel, immigration, symptomatology
  - 1.3.2.13ii. History of admission to another hospital or institution within designated timelines according to institutional guidelines.

1.3.3 Previous anesthetic history

1.3.3.1 Client with or without anesthesia-related complications, including post operative nausea and vomiting (PONV), difficult airway, obstructive sleep apnea (OSA) syndrome

1.3.3.2 Family or blood relatives with complications

1.3.3.3 Malignant hyperthermia (MH)

1.3.3.4 Pseudocholinesterase deficiencies.

1.3.4 General physical examination with a focus on a systems review specific to those physiological systems affected by anesthesia and surgery (Ross- Kerr, & Wood, 2012; Browne, MacDonald-Jenkins, & Luctkar-Flude, 2009)

1.3.4.1 Height, weight and body mass index (BMI) as required by the institution

1.3.4.2 Vital signs (VS) (e.g., blood pressure, heart rate and rhythm, respiratory rate, temperature), oxygen saturation and pain intensity using a validated pain assessment rating scale

1.3.4.3 Neurological system assessment (e.g., level of orientation, alertness, cognitive function, mood and behaviour, baseline sensory and motor functions)

1.3.4.4 Head and neck assessment (e.g., airway examination, dental assessment, visual function [e.g., eyeglasses, contact lenses], hearing function [e.g., hearing aids], jugular veins, neck range of motion)

1.3.4.5 Heart and vascular system assessment (e.g., apical, radial and peripheral pulses, capillary refill, skin temperature, colour, moisture and elasticity)

1.3.4.6 Thorax and lungs assessment (e.g., breathing pattern, chest excursion, breath sounds)

1.3.4.7 Integumentary system assessment (e.g., skin over bony prominences, dry thin skin, presence of infection at the surgical site or regional anesthesia sites)

1.3.4.8 Gastrointestinal system assessment (e.g., abdomen shape, distension, bowel movement patterns)

1.3.4.9 Genitourinary system (e.g., pregnancy, urinary retention)

1.3.4.10 Musculoskeletal assessment (e.g., mobility, physical limitation, walking aids, skeletal deformities that interfere with intraoperative positioning)

1.3.4.11 Comprehensive pain assessment (e.g., pain history, current pain level, chronic/persistent versus new/acute onset, medications).

1.3.5 Patient/client safety initiatives as determined by Accreditation Canada that are Required Organizational Practices (ROP) (Accreditation Canada, 2014a) (See Appendix B)

1.3.5.1 Best possible medication history (BPMH) and medication reconciliation (Accreditation Canada, 2013; Safer Healthcare ***Now!*** 2011b)

1.3.5.2 Client identification

1.3.5.3 Fall risk assessment and interventions

1.3.5.4 Surgical site verification

1.3.5.5 Surgical site infection

1.3.5.6 Venous thromboembolism (VTE) prophylaxis

1.3.5.7 Pressure ulcer prevention.

1.3.6 Discharge planning

1.3.6.1 Availability of a responsible adult to assist with home care

1.3.6.2 Availability of escort to transport home safely

1.3.6.3 Pre-emptive planning for and preparation of, the home

1.3.6.4 Postsurgical physical limitations:

1.3.6.4i. Activities of daily living (ADL): eating, bathing, dressing, toileting, transferring, bowel and bladder control or management

1.3.6.4 ii. Instrumental activities of daily living (IADL): use of phone, shopping, preparing food, household chores, driving, self- administration of medications, and managing finances.

1.3.6.5 Procurement of supplies and/or equipment needed postoperatively.

1.3.7 Preoperative and preanesthesia immediate and long-term postoperative teaching related to the surgery as indicated on the surgical consent and confirmed by the client:

1.3.7.1 Preoperative fasting/thirsting as per accepted guidelines including recognition of Enhanced Recovery after Surgery (ERAS®) recommendations (Enhanced Recovery after Surgery Society, 2013; Varandhan, Neal, Dejong, Fearon, Ljungqvist, & Lobo, 2010)

1.3.7.1 i. General fasting guidelines for healthy clients include

a. Clear liquids (with carbohydrate loading) should be encouraged until 2 hours prior to anesthesia

ai. "Carbohydrate-rich beverage given before anaesthesia and surgery alters metabolism from the overnight fasted to the fed state. This reduces the catabolic response (insulin resistance) after operation, which may have implications for postoperative recovery" (Ljungqvist, & Søreide, 2003).

b. Breast milk until 4 hours prior to anesthesia
c. Infant formula, non-human milk, light meal 6 hours prior to anesthesia
d. Solids, non-human milk more than 8 hours before anesthesia (Canadian Anesthesiologists' Society, 2014).

1.3.7.2 Preoperative bathing and skin preparation as per institutional policy

1.3.7.3 Smoking/alcohol cessation information

1.3.7.4 Administration or holding of medications preoperatively

1.3.7.5 Items to bring to hospital (e.g., all home medications, mobility aids, CPAP machine)

1.3.7.6 Items not to bring to hospital (e.g., items of value, jewelry, money, credit cards)

1.3.7.7 Appropriate apparel in relation to surgical procedure

1.3.7.8 Arrival date, time and location

1.3.7.9 Postoperative preparation of home

1.3.7.10 Postoperative preparation of self-care

1.3.7.11 Client's rights and responsibilities regarding

1.3.7.11i. Pain assessment and use of validated pain reporting scales

1.3.7.11ii. Pain management techniques

1.3.7.11 iii. Acceptable level of pain.

1.3.7.12 Education specific to the types and techniques of anesthetic agents

1.3.7.13 Education specific to the surgical intervention

1.3.7.14 Postoperative instructions and rationale are reviewed prior to surgery

1.3.7.14i. Postoperative pain, anxiety and the effects of medications can negatively impact attention and recall in the postoperative period

1.3.7.14 ii. Instructions should be written clearly and comprehensively for a thorough understanding of how the needs of the client may be met.

1.3.7.15 Sufficient time for client, family and/or substitute decision maker to ask questions and to receive answers.

1.3.8 Review advance directives and communicate revision(s) to the interprofessional team

1.3.9 Development of a plan of care to describe and coordinate care to reduce negative side effects and improve outcomes

1.3.10 Consultations and referrals as appropriate, which include but are not limited to:

1.3.10.1 Anesthesiologist

1.3.10.2 Cardiologist, Endocrinologist, Nephrologist, Respirologist

1.3.10.3 Home Care/community care resources (e.g., home care, visiting nursing agency, rehabilitation, geriatric or palliative care)

1.3.10.4 Pharmacist

1.3.10.5 Occupational Therapist

1.3.10.6 Physical Therapist

1.3.10.7 Social Worker

1.3.10.8 Acute Pain Service member

1.3.10.9 Internal medicine physician

1.3.10.10 Nurse Practitioner (NP)

1.3.10.11 Blood conservation therapist.

1.3.11 Standardized approach for documentation and communication of all relevant information as outlined by Accreditation Canada and institutional policies, procedures and protocols (Accreditation Canada, 2014a)

1.3.12 Use of a standardized approach for a comprehensive transfer of information to other members of the interprofessional team. (See Resource 6: Transportation and Communication for Safe Transfer of Care)

2. Day of Surgery Phase

2.1 Client assessment and management criteria include initial, ongoing, and discharge/transfer criteria. The PeriAnesthesia nurse assesses and manages the perianesthesia client before transferring the client to the next perianesthesia phase. Assessment and management include, but are not limited to:

2.1.1 Verification of client identity using a minimum of two client specific identifiers (excluding room or bed numbers):

2.1.1.1 Verification of informed consent

2.1.1.2 Surgical site, side and level verification and marking

2.1.1.3 Surgical safety checklist for preoperative invasive procedures such as peripheral nerve block including transversus abdominis plane (TAP) block or neuraxial block

2.1.1.4 Verification of client's health record to include all the relevant health information necessary for safe planning of perianesthesia/perioperative care which include, but are not limited to:

2.1.1.4i. Diagnostic investigations

2.1.1.4ii. Laboratory test results

2.1.1.4iii. Health information from previous hospitalization(s)

2.1.1.4iv. Treatment or interventions

2.1.1.4v. Consultation reports.

2.1.1.5 Client's identity must be checked before the initiation of any preoperative interventions (e.g., administration of medication).

2.1.2 Verification of appropriate documentation on client's permanent health record

2.1.2.1 Client identification must be matched with all health information documents in the client's permanent record.

2.1.3 Validation of the perioperative/perianesthesia plan of care (initiated in the PreOperative/PreAdmission environment with client, family and/or substitute decision maker) and revisions to reflect:

2.1.3.1 Ongoing development of a care plan for the Day of Surgery phase

2.1.3.2 Updating and/or completing the plan of care, highlighting changes related to:

2.1.3.2i. Medical, surgical and anesthetic history

a. Client with or without risks for complications for surgery or anesthesia
b. Client's family with complications related to previous surgery or anesthesia.

2.1.3.2ii. Medications use, complementary and alternative medicines and time last dose taken (Accreditation Canada, 2013; Safer Healthcare ***Now!*** 2011b)

2.1.3.2iii. Allergies and sensitivities (e.g., latex, medication, environmental, dietary) with a description of the reaction

2.1.3.2iv. Substance and recreational drug use (e.g., tobacco, alcohol, stimulants, drugs of abuse) and last dose/time taken

2.1.3.2 v. Physical assessment

a. Vital signs (e.g., pulse, temperature, blood pressure, respiratory rate), oxygen saturation and pain intensity
b. Review of physiological systems
c. Mobility limitation including restricted limb(s), functional status and ability to engage in physical activities (Rivera et al, 2012)
d. Medical prosthesis(es) and implant(s)
e. Sensory limitations (e.g., hearing and visual aids)
f. Cognitive and communication challenges (e.g., language and need for interpreter)
g. Current pain and comfort assessment including nausea, vomiting.

2.1.3.2vi. Relevant preoperative and preanesthesia emotional and psychosocial needs of client, family and responsible adult/escort

2.1.3.2 vii. Relevant diagnostic tests and consultation reports

a. Laboratory values
b. Radiological findings
c. Electrocardiogram (ECG) and other cardiology investigation tests (e.g., echocardiogram)
d. Sleep study reports for diagnosis of obstructive sleep apnea syndrome.

2.1.3.2viii. Advance directive(s), review and communication of revised directive to the interprofessional team

2.1.3.2ix. Prescribed surgical preparation completed as required (e. g. nothing per os (NPO) status, bowel preparation, hair removal, appropriate skin scrub)

2.1.3.2x. Infection control, antibiotic resistant organisms and communicable diseases

2.1.3.2xi. Pediatric populations assessed for birth history, developmental stages, gestational age and parent/child interactions.

2.1.4 Interventions for immediate preoperative preparation:

2.1.4.1 Patient/client safety interventions (e.g., Required Organizational Practices)

2.1.4.2 Client identification
2.1.4.3 Medication reconciliation
2.1.4.4 Falls risk assessment and interventions
2.1.4.5 Surgical site, side and level verification and marking
2.1.4.6 Surgical site infection prevention
2.1.4.6i. Normothermia (36° C-38° C), hypo/hyperthermia assessment and management (thermoregulation) (See Resource 8: Thermoregulation: Maintenance of PeriAnesthesia Normothermia)
2.1.4.6ii. Minimal hair removal by clipping as close to the time of surgery as possible
2.1.4.6iii. Blood glucose level: Euglycemia (normal blood glucose) as goal for management
2.1.4.6iv. Antibiotic therapy within 60 minutes of surgical incision (Safer Healthcare ***Now!*** 2011a).
2.1.4.7 Venous thromboembolism prophylaxis.
2.1.5 Physical preparation (Ross-Kerr, & Wood, 2012)
2.1.5.1 Hair and cosmetics
2.1.5.2 Removal of prosthesis(es)
2.1.5.3 Safeguarding valuables
2.1.5.4 Preparation of bowel and bladder
2.1.5.5 Administration of preoperative medication
2.1.5.5i. Continuation of analgesia medication as applicable to prevent withdrawal syndrome.
2.1.5.6 Special procedures (e.g., initiation of intravenous access).

2.2 Client and family education

2.2.1 Validated pain assessment rating scale, goal for comfort, pain management interventions
2.2.2 Use of patient controlled analgesia (PCA) pump, or patient controlled epidural analgesia (PCEA) pump
2.2.3 Postoperative exercises
2.2.4 Knowledge of preoperative and preanesthesia teaching and discharge instructions.

2.3 Discharge preparations

2.3.1 Availability of safe transportation home including escort, assistance at home, driving restrictions, risk for injury related to handling of machinery and other equipment for 24 hours
2.3.2 Community access support services referrals.

2.4 Documentation of communication of all relevant information as per institutional policies, procedures and protocols

2.5 Review of plan of care revised during entire Day of Surgery phase to ensure goals have been/will be met, or revision of these goals as required

2.5.1 Goals are related to postanesthesia discharge criteria, which must be met in order to be transferred to the next postanesthesia level of care.

II. Anesthesia Phase

1. Initial assessment and management criteria and documentation include, but are not limited to:

1.1 Verification of client identity using a minimum of two client specific identifiers (excluding room or bed numbers)

1.1.1 Verification of informed consent
1.1.2 Surgical site, side and level verification and marking
1.1.3 Surgical safety checklist for preoperative invasive procedures such as peripheral nerve block including transversus abdominis plane (TAP) block or neuraxial block.

1.2 Integration of data received at transfer of care transition points/personnel/times

1.2.1 Relevant preoperative status including ASA *Physical Status Classification* value (American Society of Anesthesiologists, 1941)
1.2.2 Review of plan of care from previous perianesthesia phases and revisions as required for the Anesthesia phase
1.2.3 Emotional status on arrival to surgical area
1.2.4 Anesthesia and sedation agents, types and technique(s)
1.2.5 Length of time during which anesthesia and sedation were administered and the time at which reversal agents were administered
1.2.6 Pain management and plan for ongoing management, including multimodal analgesics and complementary and alternative therapies
1.2.7 Preemptive management of postoperative nausea and vomiting and plan for ongoing management, including pharmacological treatment and alternative therapies
1.2.8 Medication(s) administered including dosage and time of administration
1.2.9 Type of surgery
1.2.10 Estimated fluid/blood loss and replacement, accurate fluid balance
1.2.11 Complication(s) occurring during course of anesthesia, treatment initiated and client's response to treatment.

1.3 Initial assessment and documentation

1.3.1 Airway patency, respiratory status: respiratory rate, breath sounds, type of airway, mechanical assistive device, ventilator settings, oxygen saturation, end tidal CO_2 (capnography) monitoring, alternate oxygen therapy
1.3.2 Blood pressure (BP) using non-invasive or invasive hemodynamic techniques (e.g., arterial line for transduced and displayed arterial BP, central venous, pulmonary artery, and intracranial pressure)
1.3.3 Pulse rate and quality, including apical and/or peripheral
1.3.4 Cardiac rhythm using single, double or multiple leads as indicated
1.3.5 Core (rectum, tympanic, pulmonary artery) and /or surface (skin, oral cavity, axilla) temperature and planning for and initiation of, active measures to manage abnormal results (thermoregulation).

1.4 Pain and comfort level, including postoperative nausea and vomiting

1.5 Level of emotional comfort, alterations from preoperative and preanesthesia status

1.6 Neurological function including level of consciousness (LOC), alterations in status from preoperative and preanesthesia state, pupillary response as indicated, sensory and motor function as appropriate

1.7 Positioning of the client and limitations of the client's mobility

1.8 Condition, temperature and color of skin

1.9 Neurovascular: peripheral pulses, colour, capillary refill, sensation, warmth and movement of extremity(ies) as applicable

1.10 Condition of dressings and visible incisions

1.11 Type, patency and securing of drainage tube(s), catheter(s), and receptacle(s) including drainage and instillations

1.12 Amount and description of drainage

1.13 Fluid therapy: location of line(s), condition of intravenous site(s), and amount, type and rate of solution(s) infusing

1.14 Surgery-specific assessment (e.g., firmness of abdomen)

1.15 Patient/client safety initiatives (Accreditation Canada, 2014a).

2. Ongoing assessment and management criteria and documentation include, but are not limited to:

2.1 Monitor, maintain and/or improve respiratory function, including response to anesthesia and sedation agents' types and techniques

2.1.1 Continuous pulse oximetry
2.1.2 Capnography
2.1.3 Oxygen therapy and assistive ventilation, medications (e.g., bronchodilators).

2.2 Monitor, maintain and/or improve circulatory function

2.2.1 Continuous electrocardiographic (ECG) monitoring
2.2.2 Vasopressors, inotropes, antihypertensives, antiarrythmics, cardiac stimulants or depressants.

2.3 Monitor, maintain, and/or improve neurological function to include level of consciousness

2.3.1 Osmolar medications (e.g., mannitol) or steroids (e.g., dexamethasone).

2.4 Sensory and motor function as appropriate

2.5 Monitor temperature and promote normothermia

2.6 Promote and maintain effective pain and comfort management, including postoperative nausea and vomiting

2.7 Promote and maintain emotional comfort

2.8 Monitor surgical site and continue surgical specific care

2.9 Promote and maintain skin integrity with appropriate positioning and padding

2.10 Document nursing action and/or interventions with outcomes

2.11 Promote patient/client safety initiatives

2.12 Include family and/or substitute decision maker in the care decisions of the client as required

2.13 Selection criteria for fast tracking clients (See Resource 5: Discharge Criteria from all PostAnesthesia Phases)

2.14 Notify receiving perianesthesia care environment (Phase I or II) prior to transfer of care regarding any equipment required for ongoing care

2.15 Notify receiving perianesthesia care environment (Phase I or II) when client is ready for discharge from the Anesthesia phase and provide a comprehensive transfer of care report of all significant events that have occurred in the Anesthesia phase. (See Resource 6: Transportation and Communication for Safe Transfer of Care).

3. Discharge criteria assessment and management are supported by data collected, evaluated and documented which include, but are not limited to:

3.1 Airway patency, respiratory function and oxygen saturation, including oxygen therapy as required

3.2 Cardiac and hemodynamic status including fluid balance

3.3 Thermoregulation requirements and current body temperature

3.4 Level of consciousness and relation to preoperative and preanesthesia status

3.5 Pain and comfort control including postoperative nausea and vomiting

3.6 Sensory and motor function and relation to preoperative and preanesthesia status

3.7 Patency of tube(s), catheter(s), drain(s), intravenous line(s) including drainage and instillations

3.8 Fluid therapy: location of line(s), condition of intravenous site(s), and the amount, type and rate of solution(s) infusing, fluid balance and estimated blood loss

3.9 Skin color, temperature, condition

3.10 Condition of dressing and/or surgical site, treatment

3.11 Emotional status and relation to preoperative and preanesthesia status

3.12 Child-parent, client-family interactions and response of client

3.13 Promote patient/client safety initiatives

3.14 Review of plan of care revised during Anesthesia phase and assess for attainment of goals:

3.14.1 Ongoing care is defined using the discharge criteria process, and management of care is transferred to the next phase of PeriAnesthesia nursing care

3.14.2 A concise and comprehensive verbal transfer of care report is given to the PeriAnesthesia nurse in the next phase (Phase I or II) using the institution's accepted transfer of care communication template as a guide.

3.15 Discharge criteria should be approved by the interprofessional team in relation to the provincial, national and international PeriAnesthesia nursing and anesthesia standards for all transfers and discharges

3.15.1 Discharge criteria should be used in consultation and consensus with the interprofessional team in perianesthesia environments

3.15.2 Discharge criteria should be supported by institutional policies indicating the medical directive for transfer and discharge according to evidence-based discharge criteria following anesthesia for:

3.15.2.1 Admission to hospital following anesthesia

3.15.2.2 Discharge home on the day of surgery (e.g., Aldrete, PADSS with or without the Bromage Scale) (Aldrete & Krouiik, 1970; Aldrete, 1994; Aldrete, 1998; Chung, 1995; Bromage, 1978).

3.15.3 PostAnesthesia Phase I discharge scoring system or "Whites Criteria" are used if the client meets discharge criteria for transfer to Phase II directly from the Anesthesia phase (fast-tracking) (See also Resource 5: Discharge Criteria in all PostAnesthesia Phases)

3.15.4 The PeriAnesthesia nurse will adhere to institutional policy(ies), procedure(s) and protocol(s) for client reassessment following discharge.

III. PostAnesthesia Phases

1. PostAnesthesia Phase 1

1.1. Initial assessment and management criteria and documentation include, but are not limited to:

1.1.1 Integration of data received at transfer of care

1.1.1.1 Relevant preoperative and preanesthesia status

1.1.1.2 Anesthesia and sedation agents, types and technique(s) including response to each

1.1.1.3 Length of time during which anesthesia and sedation were administered and the time at which reversal agents were administered (Carlson, 2009)

1.1.1.4 Pain and comfort management, including postoperative nausea and vomiting

1.1.1.5 Medications administered, including dosage and time of administration (Accreditation Canada, 2013; Safer Healthcare ***Now!*** 2011b).

1.1.1.6 Type of surgery

1.1.1.7 Estimated fluid/blood loss and replacement, accurate fluid balance

1.1.1.8 Fluid therapy (e.g., location of line(s), condition of intravenous site(s) and the amount, type and rate of solution(s) infusing)

1.1.1.9 Intraoperative tests and results

1.1.1.10 Condition of surgical site(s), immobilizer(s), presence and type(s) of drains, packing(s) and/or dressing(s)

1.1.1.10 i. Evaluate surgical bleeding.

1.1.1.11 Complication(s) occurring during course of anesthesia, treatment initiated and client's response to treatment

1.1.1.11 i. Intraoperative vital signs 1.1.1.11ii. Harmful incidents, outcomes.

1.1.1.12 Reviewof the plan of care from the previous perianesthesia environments and ongoing development of a plan of care for Phase I

1.1.1.13 Emotional status on arrival to Phase I in relation to preoperative and preanesthesia state

1.1.1.14 Allergies

1.1.1.15 Functional status and ability to engage in physical activities mobility limitation including restricted limb (Rivera et al, 2012)

1.1.1.16 Standard precautions and routine practices for infection control

1.1.1.17 Special concerns (e.g., risk for hemorrhage, respiratory, sedation, paralysis).

1.1.2 Systems assessment on admission and continuous monitoring

The Canadian Anesthesiologists' Society (2014) recommends the following types of available equipment and monitoring are appropriate in Phase I:

"Supplemental oxygen and suction must be available for every patient in the PACU. Emergency equipment for resuscitation and life support must be available in the PACU. The monitoring used in the PACU should be appropriate to the patient's condition and a full range of monitoring devices should be available. The use of pulse oximetry in the initial phase of recovery is required. An apnea monitor is recommended for a preterm infant of less than 50 weeks of gestational age" (Canadian Anesthesiologists' Society, 2014, p. 56).

1.1.2.1 Vital signs monitored continuously and documented at a minimum of every 15 minutes, upon admission to, and upon discharge from Phase I

1.1.2.2 Airway patency, type of artificial airway, mechanical assistive device

1.1.2.3 Respiratory function: chest wall expansion, use of accessory respiratory muscle, auscultation of lung fields and identification of adventitious breath sounds, presence and character of cough, position of trachea

1.1.2.4 Ventilatory and oxygen therapy support: ventilator settings, oxygen saturation, end tidal CO_2 (capnography) monitoring if indicated, alternate oxygen therapy, arterial blood gases, presence and character of cough, chest tube drainage/bubbling

1.1.2.5 Cardiovascular function: heart rate including rhythm and interpretation, heart sounds, pacemaker status, arterial blood pressure, central venous blood pressure, jugular venous distension, electrocardiograms

1.1.2.5 i. Skin colour, temperature, moisture and capillary refill 1.1.2.5ii. Peripheral pulses to all extremities and compare right side to left side.

1.1.2.6 Hemodynamic pressure readings (e.g., central venous, pulmonary artery), and intracranial pressure if indicated

1.1.2.7 Neurological function including level of consciousness alterations from preoperative and preanesthesia state, mental status, size of pupils and reactivity to light, facial symmetry, movements and strength of extremities, peripheral nerve stimulation for verification of motor function

1.1.2.7i. Sensory functions, using a dermatome chart where appropriate, and alterations from preoperative and preanesthesia state

1.1.2.7ii. Motor function using a motor assessment scale where appropriate, and alterations from preoperative and preanesthesia state

1.1.2.7iii. Sedation level using a sedation assessment scale (Pasero, 2009) (See Appendix V)

1.1.2.7iv. Residual blockade and delayed awakening.

1.1.2.8 Pain intensity using a validated pain assessment rating scale

1.1.2.9 Core and/or surface temperature, planning for, and initiation of active measure to manage abnormal results (thermoregulation)

1.1.2.10 Skin assessment at pressure points, around tape and dressing

1.1.2.11 Fluid and electrolyte balance, including urine, drainage output and unanticipated blood loss.

1.1.3 Comfort assessment

1.1.3.1 Pain assessment and management, incorporating intraoperative management and effectiveness (Safer Healthcare ***Now***! 2011b)

1.1.3.2 Postoperative nausea and vomiting assessment and management, incorporating intraoperative management and effectiveness

1.1.3.3 Assessment and management of postoperative shivering

1.1.3.4 Level of emotional comfort including alterations from preoperative and preanesthesia state.

1.1.4 Client position to promote enhance airway and cardiovascular status, incorporating reported and observed limitations of the client

1.1.5 Dressing(s): Condition of dressing(s) and visible incision(s), treatment

1.1.6 Drain(s): Type, patency and security of drainage tube(s), catheter(s), drain(s) and receptacle(s) including amount and type of drainage and instillations

1.1.7 Fluid therapy (e.g., location of line(s), condition of intravenous site(s), and the amount, type and rate of solution(s) infusing)

1.1.8 Relevant surgery specific assessment (e.g., firmness of abdomen and management of abnormal findings)

1.1.9 Patient/client safety initiatives (Accreditation Canada, 2014a)

1.1.10 PostAnesthesia discharge scoring system utilized for transfer to next PostAnesthesia phase (Phase II) e.g., Aldrete and/or Bromage scale (Aldrete & Krouiik, 1970; Aldrete, 1994; Aldrete, 1998; Bromage, 1978).

1.2 Ongoing assessment and management criteria and documentation include, but are not limited to:

1.2.1 Integration of client and family reports regarding history, status and ongoing needs

1.2.1.1 Family visitation in Phase I (PACU).

1.2.2 Anticipates and/or recognizes complications, monitors, maintains and/or improves respiratory function:

1.2.2.1 Nurse-led extubation of advanced airways (e.g., endotracheal tube or laryngeal mask airway) (See Resource 13: Airway Management in Phase I)

1.2.2.2 Emergency airway management (e.g., head tilt-chin lift-jaw thrust, oropharyngeal and nasopharyngeal airway, bag-valve-mask device)

1.2.2.3 Management of tracheo-bronchial secretions

1.2.2.4 Continuous pulse oximetry, capnography

1.2.2.5 Positioning to improve respiratory function

1.2.2.6 Deep breathing and coughing and incentive spirometry

1.2.2.7 Assisted ventilation: invasive and non- invasive mechanical ventilatory devices
1.2.2.8 Administration of pharmacologic agents (e.g., bronchodilators)
1.2.2.9 Monitoring of client with obstructive sleep apnea syndrome
1.2.2.10 Risk for aspiration
1.2.2.11 Management of laryngospasm and negative pressure pulmonary edema (Carlson, 2009; Drain & Odom-Forren, 2009).

1.2.3 Anticipates and/or recognizes complications, monitors, maintains and/or improves circulatory function
1.2.3.1 Non-invasive BP monitoring or invasive BP monitoring by arterial line transduced and displayed for arterial BP
1.2.3.2 Pulse, apical or peripheral
1.2.3.3 Continuous ECG monitoring where indicated
1.2.3.4 Cardiac rhythm and rate are monitored and documented (e.g., single, double or multiple leads as appropriate)
1.2.3.5 Administration of pharmacologic infusions to improve rhythm, cardiac output and BP (Varandhan et al, 2010)
1.2.3.6 Monitor for blood loss
1.2.3.7 Early identification and management of sepsis (Accreditation Canada, 2014a)
1.2.3.8 Prevention of compartment syndrome.

1.2.4 Anticipates and/or recognizes complications, monitors, maintains and/or improves neurological function
1.2.4.1 Management of emergence delirium
1.2.4.2 Delayed awakening
1.2.4.3 Prevention of secondary injury from neuromuscular blockade, neuraxial anesthesia/analgesia, opioid therapy
1.2.4.4 Ongoing orientation to surroundings
1.2.4.5 Assessment of opioid induced sedation and sedation level of intubated client
1.2.4.5i. Management of opioid induced sedation with reversal agents.
1.2.4.6 Administration of pharmacologic agents
1.2.4.7 Appropriate positioning to prevent damage to nerve tendons and muscles (e.g., appropriate body alignment, extremity elevation).

1.2.5 Anticipates and/or recognizes complications, monitors, maintains and/or improves sensory and motor function as appropriate

1.2.6 Anticipates and/or recognizes complications, monitors, maintains and/or improves temperature and promotes normothermia
1.2.6.1 Continuous temperature monitoring for clients with malignant hyperthermia
1.2.6.2 Active and passive warming methods.

1.2.7 Anticipates and/or recognizes complications, monitors, maintains and/or improves renal function
1.2.7.1 Intermittent or continuous renal replacement therapy (hemodialysis)
1.2.7.2 Peritoneal dialysis
1.2.7.3 Administer and managing fluid replacement according to Enhanced Recovery After Surgery(ERAS®) and surgery specific protocols.

1.2.8 Anticipates and/or recognizes complications, monitors, maintains and/or improves pain management
1.2.8.1 Implementing and evaluating an individualized pain management plan using a multimodal analgesia approach (American Society of Anesthesiologists, 2012)
1.2.8.2 Effective pain management techniques and appropriate frequency of analgesia administration:

1.2.8.2i. Central (neuraxial) analgesia: epidural, spinal

1.2.8.2ii. Systemic analgesia or anesthesia by intravenous route, patient controlled analgesia

1.2.8.2iii. Peripheral nerve blocks including transversus abdominis plane (TAP) block

1.2.8.2iv. Oral analgesia

1.2.8.2v. Regularly scheduled administration preferred to rescue analgesia

1.2.8.2vi. Intramuscular route minimized or avoided.

1.2.8.3 Pain assessment using a validated pain assessment rating scale appropriate to client's cognitive and communication ability (See Resource 10: Assessment and Management of PeriAnesthesia Pain)

1.2.8.4 Pain management safety:

1.2.8.4i. Analgesia therapy with consideration to client's age, weight, comorbidities and individual risk for complications (e.g., respiratory and cardiac diseases, allergies, obstructive sleep apnea)

1.2.8.4ii. Clients at risk for under-treatment of postoperative pain (e.g., pediatric, geriatric, intubated, cognitive and communication impaired clients)

1.2.8.4iii. Opioid induced sedation score and sedation management (e.g., opioid titration, opioid antagonists). (See Appendix V)

1.2.9 Anticipates and/or recognizes complications, monitors, maintains and/or improves postoperative nausea and vomiting management

1.2.9.1 Identification of clients at risk for postoperative nausea and vomiting

1.2.9.2 Pharmacological and non-pharmacological management of postoperative nausea and vomiting.

1.2.10 Anticipates and/or recognizes complications, monitors, maintains and/or improves emotional comfort

1.2.10.1 Family visitation in Phase I (PACU).

1.2.11 Anticipates and/or recognizes complications, monitors, maintains and/or improves surgical site and continues surgery specific care

1.2.12 Documents nursing assessment, actions and/or interventions with outcomes

1.2.13 Promotes patient/client safety initiatives

1.2.14 Promotes and maintains client privacy and confidentiality

1.2.15 Includes family and/or substitute decision makers in care of client as indicated

1.2.16 Notifies receiving perianesthesia care environment (Phase II) when client is ready for discharge from Phase I.

1.3 Discharge criteria assessment and management are supported by data collected, evaluated and documented which include, but are not limited to:

1.3.1 Airway patency, respiratory function and oxygen saturation, including ongoing oxygen therapy as required

1.3.2 Cardiac and hemodynamic monitoring

1.3.3 Thermoregulation requirements and current body temperature

1.3.4 Level of consciousness in relation to preoperative and preanesthesia state

1.3.5 Pain control, including management and response to treatment (Safer Healthcare ***Now***! 2011b)

1.3.6 Postoperative nausea and vomiting, including management and response to treatment

1.3.7 Sensory and motor function and relation to preoperative and preanesthesia status

1.3.8 Patency of tube(s), catheter(s), drain(s), receptacle(s) including drainage and instillations

1.3.9 Fluid therapy/balance (e.g., location of line(s), condition of intravenous site(s), and the amount, type and rate type of solution(s) infusing)

1.3.10 Skin colour, temperature and condition

1.3.11 Condition of dressing and/or surgical site and treatment

1.3.12 Emotional status and relation to preoperative and preanesthesia state

1.3.13 Child-parent, client-family interactions

1.3.14 Promote patient/client safety initiatives (Canadian Nurses Association & University of Toronto Faculty of Nursing, 2004)

1.3.15 Review of the plan of care revised during Phase I and assess for attainment of goals

1.3.16 Completion of all recommended treatments and therapies

1.3.17 Provide a safe transfer of care communication report of all significant events in the Anesthesia Phase and in Phase I

1.3.17.1 A concise and comprehensive verbal transfer of care report is given to the PeriAnesthesia nurse in the next phase of care using the institution's accepted transfer of care communication template as a guide (Accreditation Canada, 2014a).

1.3.18 PostAnesthesia discharge scoring system/discharge criteria (e.g., Aldrete, Modified Aldrete, Motor Assessment Scale [e.g., Bromage], opioid-induced sedation scale [e.g., Pasero opioid-induced sedation scale, POSS]) are utilized continually, beginning at admission to Phase I in order to continually assess client readiness for transfer to the next phase of care (Barnes, 2000; Meyer, 2003; Aldrete & Krouiik, 1970; Aldrete, 1994; Aldrete, 1998; Bromage, 1978; Pasero, 2009)

1.3.19 Discharge criteria should be used in consultation and consensus with the perianesthesia interprofessional team and supported by institutional policies indicating the medical directive for transfer and discharge by the PeriAnesthesia nurse

1.3.20 The above assessment parameters are included in the evidence-based discharge criteria following anesthesia for:

1.3.20.1 Admission to hospital following anesthesia

1.3.20.2 Discharge home on the day of surgery (e.g., Aldrete, PADSS with or without the Bromage Scale) (Aldrete & Krouiik, 1970; Aldrete, 1994; Aldrete, 1998; Chung, 1995; Bromage, 1978). (See also Resource 5: Discharge Criteria in all PostAnesthesia Phases)

1.3.21 Discharge criteria should be approved by the interprofessional team in relation to the local, provincial, national and international PeriAnesthesia nursing and anesthesia standards.

2. PostAnesthesia Phase II

2.1 Initial assessment and management criteria and documentation include, but are not limited to:

2.1.1 Integration of data received at transfer of care:

2.1.1.1 Relevant preoperative and preanesthesia status

2.1.1.2 Anesthesia/sedation agents, types and technique(s) including response to each

2.1.1.3 Length of time during which anesthesia/sedation were administered, and the time at which reversal agents were administered

2.1.1.4 Pain management, interventions and plan of care

2.1.1.5 Postoperative nausea and vomiting management, interventions and plan of care

2.1.1.6 Medications administered, including dosage and time of administration

2.1.1.7 Type of surgery
2.1.1.8 Estimated fluid/blood loss and replacement, accurate fluid balance
2.1.1.9 Complications occurring during Anesthesia phase and Phase I, treatment initiated and client's response
2.1.1.10 Emotional status and relation to preoperative and preanesthesia status
2.1.1.11 Review of the plan of care from the previous perianesthesia phases and ongoing revision of a plan of care for Phase II
2.1.1.12 Diagnostic investigations tests and results
2.1.1.13 Allergies
2.1.1.14 Functional status and ability to engage in physical activities mobility limitation including restricted limb (Rivera et al, 2012)
2.1.1.15 Standard precautions and routine practices for infection control
2.1.1.16 Clients preferences and special concerns
2.1.1.17 Clients appropriate for fast tracking including a fast tracking scoring system.

2.1.2 Systems assessment on admission and continuous monitoring
2.1.2.1 Vital signs monitored at regular intervals and recorded at a minimum of every 30 minutes, upon admission to, and upon discharge from Phase II
2.1.2.2 Respiratory assessment including respiratory rate, depth and effort, chest wall expansion, use of accessory respiratory muscle, auscultation of lung fields and identification of adventitious breath sounds, presence and character of cough, position of trachea, oxygen saturation (Chung, 1995) and oxygen therapy as required
2.1.2.3 Cardiovascular assessment including pulse rate, rhythm and strength, blood pressure relative to preoperative and preanesthesia state, blood loss, pacemaker status
2.1.2.4 Peripheral vascular assessment, peripheral pulses on all four extremities, capillary refill, edema, skin colour, temperature and moisture
2.1.2.5 Temperature and route, prior management and response
2.1.2.6 Neurological assessment including level of consciousness and relation to preoperative and preanesthesia state, behaviour, facial symmetry, movement and strength of extremities, sensory block, mobility status and relation to preoperative and preanesthesia state
2.1.2.7 Gastrointestinal assessment including ability to swallow, gag reflex, ability to drink and retain fluids, bowel sounds, abdominal tenderness and distention, abdominal girth, nausea, emesis characteristics
2.1.2.8 Renal function assessment including urinary output, urine color, consistency and odour, dysuria, frequency, bladder assessment, signs and symptoms of urinary retention and bladder scanning.

2.1.3 Level of emotional comfort
2.1.4 Pain score using a validated pain assessment rating scale
2.1.5 Client positioning to promote enhanced airway and cardiovascular status incorporating reported and observed limitations of the client
2.1.6 Patient/client safety initiatives (Accreditation Canada, 2014a)
2.1.7 Condition, temperature and colour of the skin
2.1.8 Condition of the dressing(s), visible incision(s), drain(s), tube(s) and receptacle(s) as applicable
2.1.8.1 Evaluate surgical bleeding, drainage.
2.1.9 Fluid therapy/balance (e.g., location of line(s), condition of intravenous(es), and the amount, type and rate of solution(s) infusing)

2.1.10 PostAnesthesia discharge scoring system is completed e.g., modified Post Anesthetic Discharge Scoring System (mPADSS), Post Anesthetic Discharge Scoring System (PADSS) (Chung, 1995; Chung, Chan, & Ong, 1995). (See Resource 5: Discharge Criteria from all PostAnesthesia Phases)

2.2 Ongoing assessment and management criteria and documentation include, but are not limited to:

- 2.2.1 Integration of client, family and/or substitute decision maker reports regarding history, status, ongoing needs and preparedness for anticipated transition of clients to home discharge
- 2.2.2 Monitors, maintains and/or improves respiratory function
- 2.2.3 Monitors, maintains and/or improves circulatory function
- 2.2.4 Implements and maintains effective pain management (e.g., pharmacological, restful positioning, ice, relaxing music, positive affirmations regarding progress, involvement of family with care which increases comfort and decreases anxiety)
- 2.2.5 Promotes and maintains effective postoperative nausea and vomiting management by decreasing movement, decreasing environmental stimulation such as noise and odours, and by utilization of antiemetics
- 2.2.6 Promotes and maintains emotional comfort as required based on client self-reports and nonverbal indicators
- 2.2.7 Continued assessment of surgical site
  - 2.2.7.1 Dressing changes, skin colour and temperature of site and presence, character and amount of drainage
  - 2.2.7.2 Assessment of the body system or anatomical site with the presenting surgical procedure (e.g., abdominal firmness).
- 2.2.8 Administers medications as ordered and documents response
  - 2.2.8.1 Pain control, including management and response to treatment (Accreditation Canada, 2013; Safer Healthcare ***Now!*** 2011b).
- 2.2.9 Promotes patient/client safety initiatives (Canadian Nurses Association & University of Toronto Faculty of Nursing, 2004)
- 2.2.10 Promotes nutrition unless contraindicated (e.g., following oral/pharyngeal local anesthesia until sensation to pharynx returns)
  - 2.2.10.1 Drinking of oral fluids is not a requirement for discharge to the Extended Observation phase (Chinnappa, & Chung, 2009), but should be promoted as soon as nausea and vomiting subside for enhanced recovery (Enhanced Recovery after Surgery Society, 2013; Varandhan et al, 2010; Canadian Anesthesiologists' Society, 2014).
- 2.2.11 Promotes and maintains elimination
  - 2.2.11.1 Urination before discharge is not a requirement for discharge to Extended Observation except for:
    - 2.2.11.1 i. Clients at high risk for urinary retention
      - a. Pelvic surgery
      - b. Hernia surgery
      - c. Gynecological or penile surgery
      - d. Rectal surgery
      - e. Spinal surgery
      - f. Spinal or epidural anesthesia
      - g. History of urinary retention
      - h. History of spinal cord disease (Chinnappa, & Chung, 2009).

2.2.12 Progression to preoperative and preanesthesia level of mobility, with procedural limitations as appropriate, by transitioning from stretcher to chair, followed by ambulating greater distances, assisted and independently

2.2.13 Review of written and verbal discharge instructions with client, family, substitute decision maker, and/or accompanying escort as appropriate

2.2.13.1 Clear instructions for postoperative care at home specific to surgery and anesthesia type including:

2.2.13.1i. Postoperative related care (e.g., safety, activity, nutrition, comfort, pain, nausea and vomiting management)

2.2.13.1ii. Resumption of preoperative routines (e.g., medications and administration of prescribed postoperative medications)

2.2.13.1 iii. Temporary postoperative activities (e.g., dressing care, postoperative exercises, equipment handling, recognition and management of complications and whom to contact in case of complications or emergencies).

2.2.13.2 Advised not to drive or operate machinery for 24 hours after surgery (Chinnappa, & Chung, 2009)

2.2.13.3 Presence of a reliable escort(s) to accompany the client, arrange for safe transportation from the institution and stay with and assist the client at home:

2.2.13.3i. Assist with activities of daily living (ADL) and instrumental activities of daily living (IADL) as required 2.2.13.3ii. Ensure comprehension to improve compliance with postoperative instructions

2.2.13.3 iii. Monitor the client's progress towards recovery 2.2.13.3iv. Contact physician or emergency care as required using parameters included in the postoperative discharge instructions 2.2.13.3v. If an escort is not available after anesthesia is given, elective admission or alternative care (e.g., 23-hour unit) should be arranged (Chinnappa, & Chung, 2009).

2.2.13.4 Necessary information, education and preparation for transition to client/family care including contact information of responsible physician and emergency care

2.2.13.5 Client and family and/or substitute decision maker must be informed of their responsibilities and should be provided with sufficient information to assess optimal postoperative recovery outcomes as well as instructions on management of unanticipated outcomes.

2.2.14 Provides follow-up for temporary or permanent extended care following Extended Observation as indicated including community assistance, in-home support, nursing care, transportation assistance, delivery services for food, pharmaceuticals, and assistive devices

2.2.14.1 Follow-up referral to Social Workers, outpatient or home care support services which should have been initiated in the PreOperative/PreAdmission phase.

2.2.15 Documents nursing action and/or interventions with outcomes

2.2.16 PostAnesthesia scoring system and discharge criteria (e.g., PADSS) are used for discharge following ambulatory surgery under anesthesia (Chung, 1995; Chung, Chan, & Ong, 1995).

2.3 Discharge criteria assessment and management is supported by data collected, evaluated and documented which include, but are not limited to:

2.3.1 Return of preanesthesia respiratory function (e.g., airway patency, respiratory function and oxygen saturation, including ongoing oxygen therapy)

2.3.2 Stability of vital signs on admission and discharge, and consistent with preoperative and preanesthesia state (within 20%)

2.3.3 Thermoregulation and return to normothermia

2.3.4 Return to preoperative and preanesthesia level of consciousness

2.3.5 Pain controlled by oral analgesia administered in relation to score on validated pain scale, and acceptable to client (Chinnappa, & Chung, 2009; Registered Nurses Association of Ontario, 2007)

2.3.6 Nausea and vomiting controlled and acceptable to client

2.3.7 Level of emotional comfort in relation to preoperative and preanesthesia state

2.3.8 Return of sensory and motor function consistent with baseline and surgical limitations (e.g., ambulation with steady gait)

2.3.9 Swallowing ability and return of gag reflex to preoperative and preanesthesia state if relevant (e.g., following oral/pharyngeal anesthesia) (Ross-Kerr, & Wood, 2012)

2.3.10 Skin colour, temperature and condition

2.3.11 Condition of dressing, surgical/procedure site, (e.g., no unanticipated drainage from the operative site)

2.3.12 Urination before discharge to Extended Observation is not a requirement except for:

2.3.12.1 Clients at high risk for urinary retention

2.3.12.1i. Pelvic surgery

2.3.12.1ii. Hernia surgery

2.3.12.1iii. Gynecological or penile surgery

2.3.12.1iv. Rectal surgery

2.3.12.1v. Spinal surgery

2.3.12.1vi. Spinal or epidural anesthesia

2.3.12.1vii. History of urinary retention

2.3.12.1 viii. History of spinal cord disease (Chinnappa, & Chung, 2009).

2.3.12.2 Ongoing monitoring may require

2.3.12.2 i. Admission to hospital for overnight observation 2.3.12.2ii. Admission to a 23-hour unit for prolonged observation.

2.3.12.3 Clients at low risk for urinary retention should be discharged with instructions to return to the hospital if they are unable to void in six to eight hours (or as otherwise directed) (Chinnappa, & Chung, 2009).

2.3.13 Child-parent, client-family interactions

2.3.14 Review of Phase II plan of care and assess for meeting all goals with ongoing management of care transferred to the next phase (Chinnappa, & Chung, 2009)

2.3.15 A concise and comprehensive verbal transfer of care communication report is given to the PeriAnesthesia nurse in the next phase of care using the institution's accepted transfer of care communication template as a guide

2.3.16 Discharge criteria should be used in consultation and consensus with the interprofessional team in perianesthesia environments and supported by institutional policies indicating the medical directive for transfer and discharge by the PeriAnesthesia nurse:

2.3.16.1 The above assessment parameters are included in the evidence-based discharge criteria following anesthesia for:

2.3.16.1i. Admission to hospital following anesthesia

2.3.16.1 ii. Discharge home on the day of surgery (e.g., PADSS, with or without the Bromage scale) (Chung, 1995; Chinnappa, &

Chung, 2009; Bromage, 1978). (See Resource 5: Discharge Criteria from all PostAnesthesia Phases)

2.3.16.2 Discharge criteria should be approved by the interprofessional team in relation to the provincial, national and international PeriAnesthesia nursing and anesthesia standards.

2.3.17 The PeriAnesthesia nurse will adhere to institutional policy, procedure, and protocols for client reassessment following discharge:

2.3.17.1 Follow-up telephone calls have been shown to reduce the incidence of returns to emergency departments and the reduction in postoperative pain and nausea issues (Accreditation Canada, 2014b)

2.3.17.2 A standardized approach must be taken, implementing the guidelines and policies for telehealth from the Canadian Nurses Association (Canadian Nurses Association, 2007).

3. Extended Observation Phase

3.1 Initial, ongoing and discharge assessment and management criteria and documentation include, but are not limited to:

3.1.1 Integration of transfer of care reports received from Phase II regarding history, recovery progress and ongoing needs

3.1.2 Assessment and evaluation of post anesthesia outcomes and ongoing development of a plan of care for the Extended Observation phase

3.1.3 Vital signs assessment and comparison to baseline if required related to condition

3.1.4 Anticipation, recognition and appropriate interventions to maintain respiratory function

3.1.5 Anticipation, recognition and appropriate interventions to maintain circulatory function

3.1.6 Anticipation, recognition and appropriate interventions to manage pain as acceptable to client

3.1.7 Anticipation, recognition and appropriate interventions to manage postoperative nausea and vomiting including maintenance of fluid balance

3.1.8 Anticipation, recognition and appropriate interventions to care for surgical site (e.g., condition of surgical dressing, monitoring of ongoing or permanent lines, catheters, tubes and drains, description and amount of drainage)

3.1.9 Anticipation, recognition and appropriate interventions to meet emotional needs and to manage anxiety

3.1.10 Anticipation and recognition and appropriate interventions to manage alterations in the level of consciousness related to anesthesia and opioid administration

3.1.11 Anticipation, recognition and appropriate interventions to manage complications related to elimination. e.g., constipation, urinary retention

3.1.11.1 Clients at risk for urinary retention (See 2.3.12.1).

3.1.12 Anticipation, recognition and appropriate interventions to manage neurovascular complications (e.g., sensory and motor block, regional anesthesia issues)

3.1.13 Client and family involvement in decision making

3.1.14 Medication management

3.1.15 Patient/client safety initiatives

3.1.16 Nourishment: oral intake is not a requirement for discharge home or to extended care institutions (Chinnappa, & Chung, 2009), but should be promoted as soon as nausea and vomiting subside for enhanced recovery (Enhanced Recovery after Surgery Society, 2013; Varandhan et al, 2010; Canadian Anesthesiologists' Society, 2013).

3.1.17 Safe mobilization consistent with baseline and surgical limitations (e.g., safe ambulation using crutches).

3.2 Identification of discharge needs and discharge preparation

3.2.1 Clients readiness for discharge

3.2.1.1 Return of physiological functions to normal baseline for client, postoperative exercises

3.2.1.2 Optimal home environment appropriate for discharge

3.2.1.3 Coping mechanism and family/community support

3.2.1.4 Client and family and/or substitute decision maker preparation for self-care or preparing the client for care by family

3.2.1.5 Admission to hospital for further observation and management related to postoperative complications.

3.2.2 Review and provide written discharge instructions to client, family, escort as appropriate

3.2.2.1 Guidelines for specific surgery which include pain assessment, medications (prescriptions), time guidelines for average recovery and return to physical activity and activities of daily living

3.2.2.2 Driving not recommended for 24 hours following anesthesia

3.2.2.3 Client, family and/or substitute decision maker and escort must be informed of their responsibilities and should be provided with sufficient information to assess optimal postoperative recovery outcomes and instructions on management of unanticipated events

3.2.2.4 Unanticipated events:

3.2.2.4i. Increasing surgical site discomfort

3.2.2.4ii. Increasing or intractable or prolonged postoperative nausea and vomiting (PPONV) (See Resource 11: Management of Postoperative Nausea and Vomiting in all PeriAnesthesia Phases)

3.2.2.4iii. Acute insomnia

3.2.2.4iv. Prolonged urinary retention

3.2.2.4v. Acute constipation

3.2.2.4vi. Myalgia

3.2.2.4vii. Prolonged pharyngitis

3.2.2.4viii. Postoperative fever

3.2.2.4ix. Headache

3.2.2.4x. Bleeding

3.2.2.4xi. Regional anesthesia issues:

a. Residual block
b. Postdural puncture headache
c. Transient neurological symptoms (TNS)
d. Urinary retention.

3.2.2.5 Role of the escort(s):

3.2.2.5i. Escort the client home, arrange for safe transportation from the institution (Chung, Mezei, & Tong, 1999) and stay with the client at home as determined by discharge protocols

3.2.2.5ii. Assist with activities of daily living and instrumental activities of daily living as required

3.2.2.5iii. Ensure comprehension to improve compliance with postoperative instructions

3.2.2.5 iv. Monitor the client's progress towards recovery 3.2.2.5v. Contact physician or emergency care as required using parameters included in the postoperative discharge instructions.

3.2.2.6 Necessary information, education and preparation for transition to client, family and escort care including contact information of most responsible physician and emergency care.

3.2.3 Provide follow-up for extended care as indicated including community assistance, in-home support, nursing care, transportation assistance, delivery services for food, pharmaceuticals, and assistive devices

3.2.3.1 Follow-up referral to Social Workers, outpatient or home care support services as indicated and which should have been initiated in the PreOperative/PreAdmission phase.

3.2.4 PostAnesthesia discharge scoring system and discharge criteria are used for clients discharged home following ambulatory surgery after anesthesia (Chinnappa, & Chung, 2009) e.g., PADSS with or without Bromage scale (Chung, 1995; Bromage, 1978). (See Resource 5: Discharge Criteria from all PostAnesthesia Phases)

3.2.4.1 Additional guidelines for discharge may be requested by the client's primary surgeon or most responsible physician along with the use of evidence-based standards for discharge criteria.

3.2.5 The PeriAnesthesia nurse will adhere to the institutional policy for client reassessment following discharge:

3.2.5.1 Follow-up telephone calls

3.2.5.2 A standardized approach must be taken, implementing the guidelines and policies for telehealth from the Canadian Nurses Association, 2007.

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