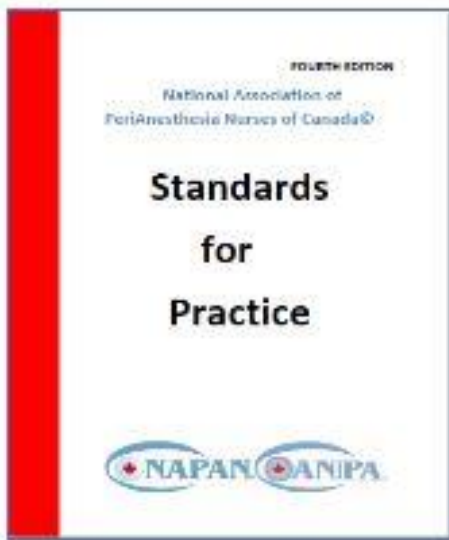


APPENDICES



Appendix A

ASA PHYSICAL STATUS CLASSIFICATION SYSTEM^[L]_[SEP]

Last approved by the ASA House of Delegates on October 15, 2014

Current definitions (NO CHANGE) and Examples (NEW)

ASA PS Classification	Definition	Examples, including, but not limited to:
ASA I	A normal healthy patient	Healthy, non-smoking, no or minimal alcohol use
ASA II	A patient with mild systemic disease	Mild diseases only without substantive functional limitations. Examples include (but not limited to): current smoker, social alcohol drinker, pregnancy, obesity (30 < BMI < 40), well-controlled DM/HTN, mild lung disease
ASA III	A patient with severe systemic disease	Substantive functional limitations; One or more moderate to severe diseases. Examples include (but not limited to): poorly controlled DM or HTN, COPD, morbid obesity (BMI ≥40), active hepatitis, alcohol dependence or abuse, implanted pacemaker, moderate reduction of ejection fraction, ESRD undergoing regularly scheduled dialysis, premature infant PCA < 60 weeks, history (>3 months) of MI, CVA, TIA, or CAD/stents.

ASA IV	A patient with severe systemic disease that is a constant threat to life	Examples include (but not limited to): recent (< 3 months) MI, CVA, TIA, or CAD/stents, ongoing cardiac ischemia or severe valve dysfunction, severe reduction of ejection fraction, sepsis, DIC, ARD or ESRD not undergoing regularly scheduled dialysis
ASA V	A moribund patient who is not expected to survive without the operation	Examples include (but not limited to): ruptured abdominal/thoracic aneurysm, massive trauma, intracranial bleed with mass effect, ischemic bowel in the face of significant cardiac pathology or multiple organ/system dysfunction
ASA VI	A declared brain-dead patient whose organs are being removed for donor purposes	



ACCREDITATION CANADA
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Force motrice de la qualité des services de santé

Appendix B
Chart of Required Organizational Practices

Guiding our clients toward safe and quality health care is strengthened by the Required Organizational Practices ***New in 2015	SAFETY CULTURE <ul style="list-style-type: none"> • Accountability for quality *** • Adverse events disclosure • Adverse events reporting • Client safety quarterly reports • Client safety-related prospective analysis
	COMMUNICATION <ul style="list-style-type: none"> • Client and family role in safety • Dangerous abbreviations • Information transfer • Medication reconciliation as a strategic priority • Medication reconciliation at care transitions • Safe surgery checklist • Two client identifiers
	MEDICATION USE <ul style="list-style-type: none"> • Antimicrobial stewardship • Concentrated electrolytes • Heparin safety • High-alert medications • Infusion pumps training • Medication concentrations • Narcotics safety
	WORKLIFE/WORKFORCE <ul style="list-style-type: none"> • Client flow *** • Client safety: education and training • Client safety plan • Preventive maintenance program • Workplace violence prevention
	INFECTION CONTROL <ul style="list-style-type: none"> • Hand-hygiene compliance (<i>formerly called Hand-hygiene audit</i>) • Hand-hygiene education and training • Infection rates • Pneumococcal vaccine • Reprocessing (<i>formerly called Sterilization processes</i>)
	RISK ASSESSMENT <ul style="list-style-type: none"> • Falls prevention strategy • Home safety risk assessment • Pressure ulcer prevention • Skin and wound care *** • Suicide prevention • Venous thromboembolism (VTE) prophylaxis

Appendix C

Aldrete Discharge Scoring System

Category	Score = 2	Score = 1	Score = 0
Respirations	Breathes deeply	Dyspnea	Apnea
Colour	Well perfused, mucous membrane appears pink	Pale, mucous membrane pale	Circumoral cyanosis, nailbed cyanosis
Circulation	BP +/- 20 % preop value	BP +/- 20-50 % preop value	BP +/- > 50 % preop value
LOC	Awake and oriented	Wakens with stimulation	Non-responsive
Movement	Moves 4 limbs spontaneously	Moves 2 limbs spontaneously	Moves 0 limb spontaneously

Adapted from: Aldrete, A., & Krouiik, D. (1970). A postanesthetic recovery score. *Anesthesia Analogue*, 49, 924-934.

Appendix D

Modified Aldrete Discharge Scoring System

Category	Description of Status	Aldrete Score
Respirations	Breathes, coughs freely	2
	Dyspnea	1
	Apnea	0
O2 Saturation	O2 Saturation > 92 % on Room Air	2
	Supplemental oxygen with O2 Sat > 90%	1
	O2 Saturation < 90% on O2	0
Circulation	BP +/- 20 % pre-op value	2
	BP +/- 20-50 % pre-op value	1
	BP +/- 50 % pre-op value	0
LOC	Awake & oriented	2
	Wakens with stimulation	1
	Not responding	0
Movement	Moves 4 limbs on own	2
	Moves 2 limbs on own	1
	Moves 0 limbs on own	0

Adapted from: Aldrete, A. (1998). Modifications to the postanesthesia score for use in ambulatory surgery. *Journal of PeriAnesthesia Nursing*, 13(3), 148-155.

Appendix E

Post Anesthetic Discharge Scoring System (PADSS)

Category	Description of Status	PADSS Score
Vital Signs	Within 20% range of pre-op value	2
	20 to 40% range of pre-op value	1
	>40% range of pre-op value	0
Ambulation	Steady gait/no dizziness	2
	Ambulates with assistance	1
	Not ambulating/dizziness	0
Nausea & Vomiting	Minimal, treated with PO medications	2
	Moderate, treated with parenteral medications	1
	Continues after repeated treatments	0
Pain	Acceptable to patient (PO medications)	2
	Acceptable to patient (parenteral medications)	1
	Pain not controlled/not acceptable to patient	0
Surgical Bleeding	Minimal/no dressing changes required	2
	Moderate bleeding	1
	Severe bleeding	0

Adapted from: Chung, F. (1995). Discharge criteria: A new trend. *Canadian Journal of Anesthesia*, 42, 1056–1058.

Appendix F

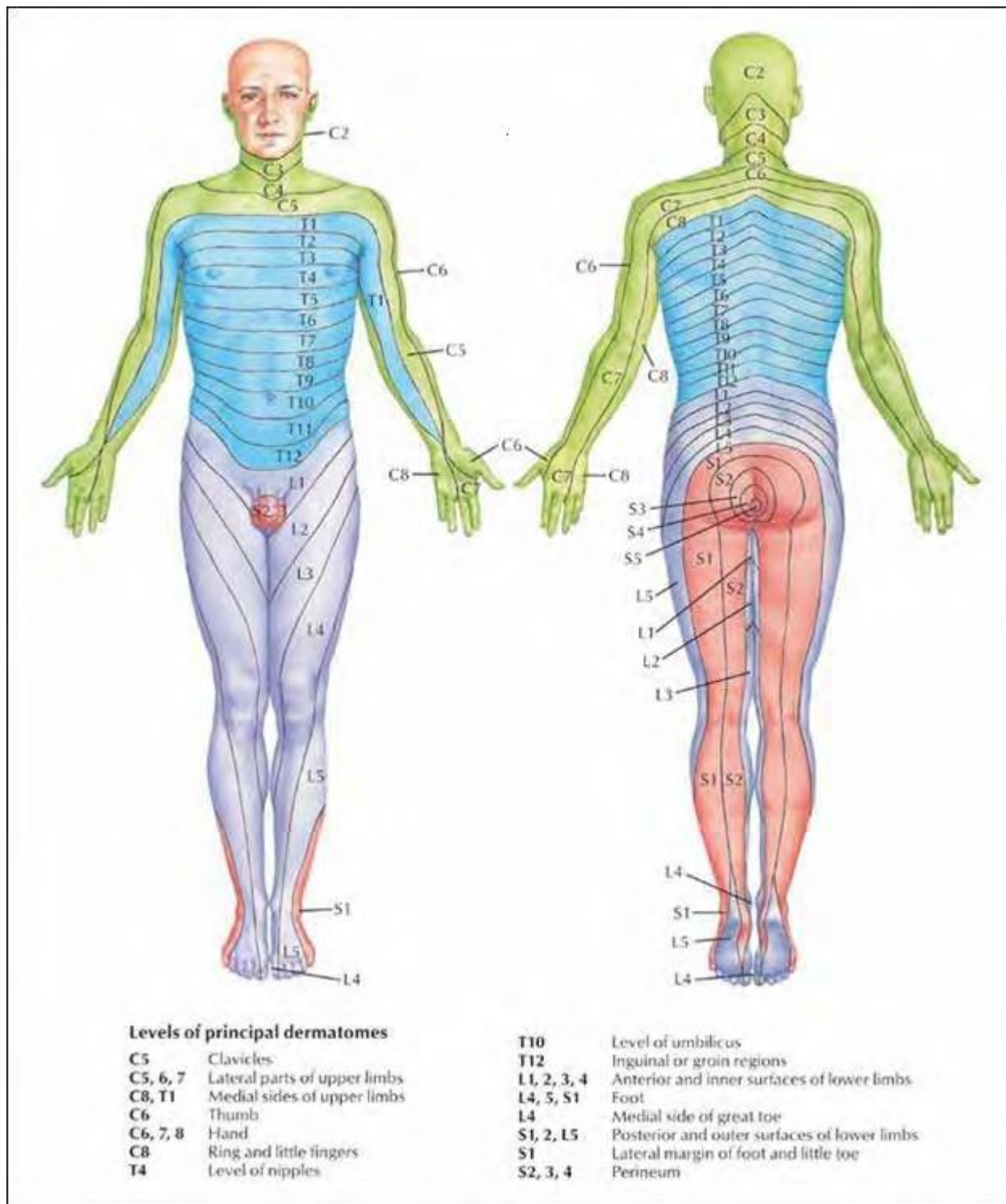
Motor Assessment using the Bromage Scale

Score	Motor Assessment
0	No Residual Motor Block; free movement of legs & feet, can straight leg raise against gravity
1	Partial Block Remains; just able to flex knees with free movement of feet
2	Almost Complete Block; only able to move feet; unable to flex knees
3	Complete Motor Block; unable to move legs or feet

Adapted from: Bromage, P. (1978). *Spinal Anesthesia*, p. 144. Philadelphia, Pennsylvania: Saunders.

Appendix G

Dermatomes for Assessment of Regional Anesthesia



Source: Weetman, C & Alison, W. (2006). Use of epidural analgesia in post operative pain management. *Nursing Standard*, 20(44), 55.

Appendix H

White's Criteria for Fast Tracking from the OR to Bypass Phase I

Proposed fast-track criteria to determine whether outpatients can be transferred directly from the Operating Room to the Phase II unit. A minimal score of 12 (with no score <1 in any individual category) would be required for a client to be fast-tracked (i.e., bypass the PostAnesthesia Care Unit/Phase I) after general anesthesia.

Category	Description of Status	Fast Track Score
Level of Consciousness Score	Awake and oriented	2
	Arousable with minimal stimulation	1
	Responsive only to tactile stimulation	0
Physical Activity	Able to move all extremities on command	2
	Some weakness in movement of extremities	1
	Unable to voluntarily move extremities	0
Hemodynamic Stability	Blood pressure 15% of baseline MAP* value	2
	Blood pressure 15% - 30% of baseline MAP value	1
	Blood pressure 30% below baseline MAP value	0
Respiratory Stability	Able to breathe deeply	2
	Tachypnea with good cough	1
	Dyspneic with weak cough	0
Oxygen Saturation Status	Maintains value 90% on room air	2
	Requires supplemental oxygen (nasal prongs)	1
	Saturation 90% with supplemental oxygen	0
Postoperative Pain Assessment	None or mild discomfort	2
	Moderate to severe pain controlled with IV analgesics	1
	Persistent severe pain	0
Postoperative Emetic Symptoms	None or mild nausea with no active vomiting	2
	Transient vomiting or retching	1
	Persistent moderate to severe nausea and vomiting	0
*MAP = mean arterial pressure		Total Score: ____

Source: White, P., & Song, D. (1999). New criteria for fast-tracking after outpatient anesthesia: A comparison with the Modified Aldrete's Scoring System. *International Anesthesia Research Society*, 88, 1069-1072.

Appendix I SBAR (Example)

S	<p>SITUATION</p> <p>I am calling about _____</p> <p>The patient's Code status is: _____</p> <p>The problem I am calling about is: _____ <small>(e.g. I AM CONCERNED THE PATIENT IS GOING TO ARREST)</small></p> <p>I have just assessed the patient personally:</p> <p>Vital signs are: Blood Pressure / , Pulse ,</p> <p>Respiration , and temperature</p> <p>I am concerned about the: _____</p> <p>Blood pressure because it is over 200 or less than 100 or 30 mmHg below usual Pulse _____</p> <p>because it is over 130 or less than 40 and symptomatic</p> <p>Respiration because it is less than 8 or over 30 Temperature _____</p> <p>because it is less than 96 or over 104</p> <p>Urine output because it is less than 25ml/hr or 200ml/8hrs</p> <p>O₂ saturation because it is less than 88% on 6/liters nasal cannula</p> <p>Other: _____</p>
B	<p>BACKGROUND</p> <p>The patient's mental status is:</p> <p>Alert and oriented to person, place, and time Confused</p> <p>and cooperative or non-cooperative Agitated or combative</p> <p>Lethargic but conversant and able to swallow</p> <p>Stuporous and not talking clearly and possibly not able to swallow Comatose</p> <p>Eyes closed Not responding to stimulation.</p> <p>The skin is:</p> <p>Warm and dry Pale</p> <p>Mottled Diaphoretic Extremities</p> <p>are cold</p> <p>Extremities are warm</p> <p>The patient is not or is on oxygen.</p> <p>The patient has been on _____ (l/min) or (%) oxygen for _____ minutes (hours)</p> <p>The oximeter is reading _____ %</p> <p>The oximeter does not detect a good pulse and is giving erratic readings.</p>
A	<p>ASSESSMENT</p> <p>This is what I think the problem is: _____</p> <p><small>"SAY WHAT YOU THINK IS THE PROBLEM"</small></p> <p>The problem seems to be cardiac/infection/neurologic/respiratory I am not sure what the problem is but the patient is deteriorating.</p> <p>The patient seems to be unstable and may get worse, we need to do something.</p>
R	<p>RECOMMENDATION</p> <p>From Physician _____</p> <p>Transfer the patient to Critical Care Come to see</p> <p>the patient at this time</p> <p>Talk to the patient or family about Code status Ask a</p> <p>consultant to see the patient now.</p> <p>Are any tests needed:</p> <p>Do you need any tests like CXR ABG EKG CBC BMP</p> <p>Others:</p> <p>If a change in treatment is ordered then ask:</p> <p>How often do you want vital signs?</p> <p>How long do you expect this problem will last?</p> <p>If the patient does not get better when would you want us to call again?</p>

Membership Source: <http://www.ihl.org/resources/Pages/Tools/SampleSBARCommunicationTool.aspx>

Appendix J

PreOperative Checklist (Day of Surgery Phase to OR) (Example)

Client Name: _____ DOB: _____
 Other (e.g., Hospital Record #): (2 Identifiers Required) _____
 Procedure: (Surgical Schedule) _____ (Client Report) _____ (incl. site, side, level)
 Surgeon: (Surgical Schedule) _____ Surgeon: (Client Report) _____
 Date/time of Scheduled Procedure: (Surgical Schedule) _____
 Type of Anesthesia: (Surgical Schedule) _____ (Client Report): _____

Please Initial

Please Initial

	Yes	No		Yes	No	
<u>A. CLIENT VERIFICATION</u>						
ID Bracelet (complete, legible, in place)			Surgical Site <u>not</u> shaved by client: <u>Or</u> shaved by client and documented: Preoperative Antibiotic Administered: Time of Administration: _____ <u>Or</u> sent with client _____: Name of Antibiotic as per protocol for type of surgery: _____ <u>2. Documentation:</u> Anesthesia Record Anesthesia Consult History and Physical Examination Completed Nursing Assessment Medication Reconciliation Record Medications sent with client (All Inhalers with Client to O.R.) Medications taken this a.m. (List): <u>Lab Reports: (Please record abnormal findings)</u> Hemoglobin (Within 28 days): Other Hematology: Electrolytes: <u>Other Biochemistry:</u> Sickle Cell: (circle one) Positive Negative Crossmatch Blood: Confirmed with Blood Bank Blood Group & Reserve Serum <u>Diagnostic Tests:</u> Chest X-Ray ECG (all clients > 45 years) CBGM (Diabetic) Results: Other:			
Allergy Band (same arm as ID band) (specify allergies):						
Isolation Type (contact, droplet, airborne)						
Addressograph Plate/Barcoded bracelet information confirmed						
Admission Summary Sheet						
<u>B. CLIENT ADVOCACY:</u>						
Pre-existing condition/physical limitations affecting surgery ...						
Sensory/Communication Impairment ...						
Translator with Client ...						
Religious Keepsakes with Client ...						
Informed Consent confirmed: may be a form to sign/witness ...						
Surgical site/side/level confirmed with client, noted above and compared to the Surgical Schedule ...						
<u>C. CLIENT PREPARATION:</u>						
<u>1. Physical:</u>						
NPO:						
Voided (Time)						
Dentures: (circle) Removed or with pt ..						
Bridges, Capped/Loose Teeth ...						
Eye Glasses/Contact Lenses: Removed or with Client ...						
Undergarments Removed ...						
Hearing Aid Removed ...						
Prostheses/Hair Pieces (Specify):						
Jewellery/Body Piercing (circle one)						
Removed: Taped: Location:						
Nail Polish Removed						
Pacemaker/Defibrillator or Shunt (Location):						
Vascular Access or Central Line (Site):						
Vital Signs:						
T _____ P _____ R _____ BP _____ Wt. _____ (kg) Ht. _____ (cm)						
OTHER CLIENT INFORMATION / SPECIAL CONSIDERATIONS:						
Day of Surgery Phase Nurse's Signature (Where applicable): _____ /Initials: _____						
OR Nurse's Signature: _____ /Initials: _____						

Developed by NAPAN[®] Exclusively for the *Standards for Practice*, 2011.

Appendix K

World Health Organization (WHO) Surgical Checklist

Surgical Safety Checklist



World Health Organization

Patient Safety
A World Alliance for Safer Health Care

Before induction of anaesthesia

→

Before skin incision

→

Before patient leaves operating room

Before induction of anaesthesia
(with at least nurse and anaesthetist)

Has the patient confirmed his/her identity, site, procedure, and consent?

Yes

Is the site marked?

Yes
 Not applicable

Is the anaesthesia machine and medication check complete?

Yes

Is the pulse oximeter on the patient and functioning?

Yes

Does the patient have a:

Known allergy?

No
 Yes

Difficult airway or aspiration risk?

No
 Yes, and equipment/assistance available

Risk of >500ml blood loss (7ml/kg in children)?

No
 Yes, and two IVs/central access and fluids planned

Before skin incision
(with nurse, anaesthetist and surgeon)

Confirm all team members have introduced themselves by name and role.

Confirm the patient's name, procedure, and where the incision will be made.

Has antibiotic prophylaxis been given within the last 60 minutes?

Yes
 Not applicable

Anticipated Critical Events

To Surgeon:

What are the critical or non-routine steps?
 How long will the case take?
 What is the anticipated blood loss?

To Anaesthetist:

Are there any patient-specific concerns?

To Nursing Team:

Has sterility (including indicator results) been confirmed?
 Are there equipment issues or any concerns?

Is essential imaging displayed?

Yes
 Not applicable

Before patient leaves operating room
(with nurse, anaesthetist and surgeon)

Nurse Verbally Confirms:

The name of the procedure
 Completion of instrument, sponge and needle counts
 Specimen labelling (read specimen labels aloud, including patient name)
 Whether there are any equipment problems to be addressed

To Surgeon, Anaesthetist and Nurse:

What are the key concerns for recovery and management of this patient?

This checklist is not intended to be comprehensive. Additions and modifications to fit local practice are encouraged. Revised 1 / 2009 © WHO, 2009

Source: World Health Organization. (2009). *Safe surgery saves lives*. Retrieved from http://whqlibdoc.who.int/publications/2009/9789241598590_eng_Checklist.pdf?ua=1

Appendix L

SURGICAL SAFETY



HECKLIST

Your Organizational
Logo

BRIEFING – Before induction of anesthesia	TIME OUT – Before skin incision
<i>Hand-off from ER, Nursing Unit or ICU</i>	
<ul style="list-style-type: none"> D Anesthesia equipment safety check completed D Patient information confirmed <ul style="list-style-type: none"> - Identity (2 identifiers) - Consent(s) - Site and procedure - Site, side and level marked - Clinical documentation - History, physical, labs, biopsy and x-rays D Review final test results D Confirm essential imaging displayed D ASA Class D Allergies D Medications <ul style="list-style-type: none"> - Antibiotic prophylaxis: double dose? - Glycemic control - Beta blockers - Anticoagulant therapy (e.g., Warfarin)? D VTE Prophylaxis <ul style="list-style-type: none"> - Anticoagulant - Mechanical D Difficult Airway / Aspiration Risk - Confirm equipment and assistance available D Monitoring <ul style="list-style-type: none"> - Pulse oximetry, ECG, BP, arterial line, CVP, temperature and urine catheter D Blood loss <ul style="list-style-type: none"> - Anticipated to be more than 500 ml (adult) or more than 7 ml/kg (child) - Blood products required and available - Patient grouped, screened and cross matched 	<ul style="list-style-type: none"> D All team members introduce themselves by name and role D Surgeon, Anesthesiologist, and Nurse verbally confirm <ul style="list-style-type: none"> - Patient - Site, side and level - Procedure - Antibiotic prophylaxis: repeat dose? - Final optimal positioning of patient D “Does anyone have any other questions or concerns before proceeding?”
<ul style="list-style-type: none"> Surgeon(s) review(s) <ul style="list-style-type: none"> - Specific patient concerns, critical steps, and special instruments or implants D Anesthesiologist(s) review(s) <ul style="list-style-type: none"> - Specific patient concerns and critical resuscitation plans D Nurses(s) review(s) <ul style="list-style-type: none"> - Specific patient concerns, sterility indicator results and equipment / implant issues D Patient positioning and support / Warming devices D Special precautions D Expected procedure time / Postoperative destination 	<ul style="list-style-type: none"> D Surgeon reviews with entire team <ul style="list-style-type: none"> - Procedure - Important intra-operative events - Fluid balance / management D Anesthesiologist reviews with entire team <ul style="list-style-type: none"> - Important intra-operative events - Recovery plans (including postoperative ventilation, pain management, glucose and temperature) D Nurse(s) review(s) with entire team <ul style="list-style-type: none"> - Instrument / sponge / needle counts - Specimen labeling and management - Important intraoperative events (including equipment malfunction) D Changes to post-operative destination? D What are the KEY concerns for this patient’s recovery and management? D Could anything have been done to make this case safer or more efficient? <p><i>Hand-off to PACU / RR, Nursing Unit or ICU</i></p>
PATIENT INFORMATION	

Source: Safer Healthcare Now! (2012). Surgical Safety Checklist - Canadian Version. Retrieved from <http://www.saferhealthcarenow.ca/EN/Interventions/SafeSurgery/Pages/SurgicalSafetyChecklist.aspx>

Appendix M

OR to Phase I, and Phase I to Phase II Transfer Checklist (Example)

OR to Phase I Transfer of Care Checklist		Phase I to Phase II Transfer of Care Checklist	
√	Transfer Criteria	√	Transfer Criteria
1. Demographics:		1. Demographics:	
	Gender		Gender
	Client identification armband on		Client identification armband on
	Hospital card on chart		Hospital card on chart
	Allergies		Allergies
	Allergy band on		Allergy band on
	Primary language reported		Primary language reported
	Interpreter required		Interpreter required
2. Isolation required (circle)		Isolation required (circle)	
	Airborne – e.g., TB, unknown		Airborne – e.g., TB, unknown
	Droplet – e.g., Chicken pox, shingles		Droplet – e.g., Chicken pox, shingles
	Contact – e.g., MRSA, VRE, C. difficile, ESBL		Contact – e.g., MRSA, VRE, C. difficile, ESBL
3. Pre-Existing Conditions:		Pre-Existing Conditions:	
4. Operative Procedure OR #		Operative Procedure	
	Surgical procedure (incl. site/side)		VS in OR
	Length of procedure and time in OR (reason)		Dressings, drains, packing
	Operative site description (dressings, packing)		Blood loss, other drainage in OR (colour/consistency/amt./urine), IV fluid intake in OR; Total OR fluid balance
			Type of anesthesia, analgesics and antiemetics given in OR
	Tubes, drains, location and drainage (colour/consistency/amt.)	5. PACU Course	
	Estimated blood loss in OR		Time in PACU _____ hours; Reason for LOS
	OR Report on chart		Vital signs on admission/during/discharge
5. Client belongings accompanying client:			Hemodynamic condition
List:			Cardiopulmonary condition (inc. vent status)
6. Family/Significant Others – Special Notes		6. Pain Management/Nausea Issues	
			Last antiemetics/analgesic/PCA: time, dose
7. Other Issues		7. Review Doctor's Orders and Lab Results	
		8. Client belongings accompanying client	
			<i>See OR Transfer for list and confirm present with client</i>
	OR Transferring RN: _____		PACU Transferring RN: _____
	PACU Receiving RN: _____		Inpatient/Phase II Unit Receiving RN: _____

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Appendix N

Alterations of Aging Clients and Effect of Anesthesia on Geriatric Response

Health System	Age related Changes	Potential Complications
Respiratory	<ul style="list-style-type: none"> • Decreased lung volumes (FRC, VC, TLC) • Decreased elastic recoil of lung, increased work of breathing • Increased upper airway secretions and chest wall rigidity • Weaker protective airway reflexes • Increased prevalence of obstructive sleep apnea (OSA) • Increased prevalence of COPD (e.g., emphysema) • Compromised ventilation perfusion matching • Decreased resting oxygen partial pressures 	<ul style="list-style-type: none"> • Impaired ability to compensate for oxygen desaturation • Higher incidence of respiratory complications such as ineffective ventilation, hypoxemia, hypercarbia, atelectasis and pneumonia • Increased risk of pulmonary aspiration • Delayed emergence following volatile (inhaled) anesthetic agents • Increased suctioning requirements • Increased occurrence of airway obstructions • Increased requirements of extended periods of mechanical ventilation or endotracheal reintubation
Cardiac	<ul style="list-style-type: none"> • Coronary sclerosis, atrophy of myocardial fibres • Fibrosis of the myocardium • Decreased cardiac output • Decreased stroke volume • Increased resting blood pressure • Decreased cardiac reserve • Degenerative changes of the conduction system • Degenerative arterial disease and elevated systolic blood pressure • Decreased organ perfusion and compensatory regulation 	<ul style="list-style-type: none"> • Impaired ability to compensate for hemodynamic changes induced by anesthesia, blood loss, surgery, pain or other stressors associated with surgery • Labile blood pressures; monitor for hypertensive and/or hypotensive episodes • Increased occurrence of cardiac dysrhythmias, bradycardia and heart block • Congestive heart failure, fluid overload • Increased occurrence of perioperative hypothermia
Renal	<ul style="list-style-type: none"> • Age related impaired renal function; decreased glomerular filtration rate and renal blood flow • Impaired ability to conserve sodium • Impaired renal adaptive mechanisms to electrolyte and fluid alterations 	<ul style="list-style-type: none"> • Fluid overload, congestive heart failure • Electrolyte imbalance (e.g., hyponatremia, hyperkalemia) • Confusion • Dehydration • Delayed emergence from anesthesia • Prolonged action of drugs that are dependent on renal excretion • Episodes of anuria or oliguria
Hepatobiliary	<ul style="list-style-type: none"> • Progressive reduction in hepatobiliary function related to advanced age 	<ul style="list-style-type: none"> • Delayed emergence from anesthesia • Prolonged action of drugs that are dependent on hepatic metabolism • Altered drug pharmacokinetics • Prolonged neuromuscular blockade
Neurological	<ul style="list-style-type: none"> • Atrophic processes interfere with basic neuronal transmission • Cognitive impairment • Dementia, delirium and behavioural changes 	<ul style="list-style-type: none"> • Postoperative cognitive delirium • Confusion, agitation and/or anxiety • Increased susceptibility to falls and other injuries • Increased susceptibility to over sedation
Integumentary	<ul style="list-style-type: none"> • Decrease organ perfusion and compensatory regulation • Loss of subcutaneous fat 	<ul style="list-style-type: none"> • Increased occurrence of unplanned hypothermia • Pressure ulcers at bony prominences

Adapted from: Drain, C. (2003). *Perianesthesia nursing-A critical care approach* (pp. 682-684). Virginia:Saunders.

Appendix O

Pre-Operative Fasting/Thirsting Regime for All Ages

4.2 Fasting guidelines

Fasting policies should vary to account for age and pre-existing medical conditions and should apply to all forms of anesthesia, including monitored anesthesia care. Emergent or urgent procedures should be undertaken after considering the risk of delaying surgery vs the risk of aspiration of gastric contents. The type and amount of food ingested should be considered in determining the duration of fasting.

Before elective procedures, the minimum duration of fasting should be:

- Eight hours after a meal that includes meat or fried or fatty foods;
- Six hours after a light meal (such as toast and a clear fluid) or after ingestion of infant formula or non-human milk;
- Four hours after ingestion of breast milk (no additions to pumped breast milk are allowed);
- Two hours after clear fluids.

Unless contraindicated, adults and children should be encouraged to drink clear fluids (including water, pulp-free juice, and tea or coffee without milk) up to two hours before elective surgery.

https://www.cas.ca/English/Page/Files/97_Guidelines-2018.pdf

Appendix P

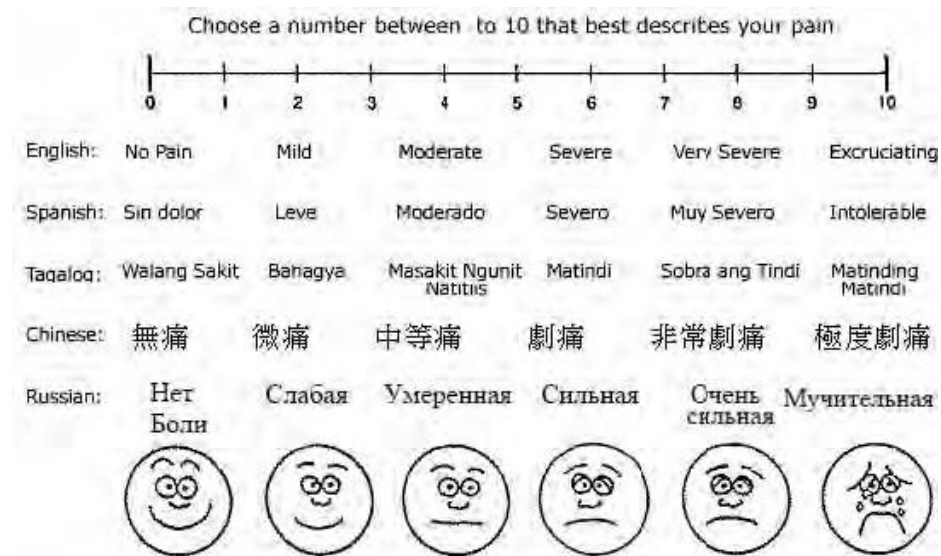
Effects of Types and Techniques of Sedation and General Anesthesia

	Minimal Amount of Sedation (Anxiolysis)	Moderate Amount of Sedation/Analgesia	Increased Amount of Sedation/Analgesia Producing Profound/Deep Sedation	General Anesthesia
Responsiveness	Normal response to verbal stimulation	Purposeful response to verbal or tactile stimulation	Purposeful response following repeated or painful stimulation	Unrousable even with painful stimulus
Airway	Unaffected	No intervention required	Intervention may be required	Intervention often required
Spontaneous Ventilation	Unaffected	Adequate	May be inadequate	Frequently inadequate
Cardiovascular Function	Unaffected	Usually maintained	Usually maintained	May be impaired

Adapted from: Odom-Forren, J, Watson, D. (2005). *Practical guide to moderate sedation/analgesia* (2nd ed.) (p. 15). Washington: Elsevier Mosby.

Appendix Q

Numeric Rating Scale (top) and Wong-Baker Faces Pain Rating Scale (bottom)



Retrieved from <http://www.cpmc.org/images/learning/painscale.gif>

To obtain this scale in multiple languages, go to: [http://www.wongbakerfaces.org/public_html/wp-](http://www.wongbakerfaces.org/public_html/wp-content/uploads/2013/11/TranslationsAll.pdf)

[content/uploads/2013/11/TranslationsAll.pdf](http://www.wongbakerfaces.org/public_html/wp-content/uploads/2013/11/TranslationsAll.pdf) OR

<http://www.iasp-pain.org/Education/Content.aspx?ItemNumber=1823>

Appendix R

Brief Pain Inventory (Short Form)

Study ID# _____ Hospital # _____
Do not write above this line.

Date: _____

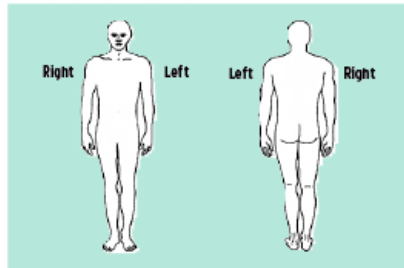
Time: _____

Name: _____
Last First Middle Initial

1) Throughout our lives, most of us have had pain from time to time (such as minor headaches, sprains, and toothaches). Have you had pain other than these everyday kinds of pain today?

1. yes 2. no

2) On the diagram, shade in the areas where you feel pain. Put an X on the area that hurts the most.



3) Please rate your pain by circling the one number that best describes your pain at its **WORST** in the past 24 hours.

0 1 2 3 4 5 6 7 8 9 10
 No Pain Pain as bad as you can imagine

4) Please rate your pain by circling the one number that best describes your pain at its **LEAST** in the past 24 hours.

0 1 2 3 4 5 6 7 8 9 10
 No Pain Pain as bad as you can imagine

5) Please rate your pain by circling the one number that best describes your pain on the **AVERAGE**.

0 1 2 3 4 5 6 7 8 9 10
 No Pain Pain as bad as you can imagine

6) Please rate your pain by circling the one number that tell how much pain you have **RIGHT NOW**.

0 1 2 3 4 5 6 7 8 9 10
 No Pain Pain as bad as you can imagine

7) What treatments or medications are you receiving for your pain?

8) In the past 24 hours, how much **RELIEF** have pain treatments or medications provided? Please circle the one percentage that shows how much relief you have received.

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
 No Relief Complete Relief

9) Circle the one number that describes how, during the past 24 hours, **PAIN HAS INTERFERED** with your:

A. General Activity:

0 1 2 3 4 5 6 7 8 9 10
 Does not Completely interfere

B. Mood

0 1 2 3 4 5 6 7 8 9 10
 Does not Completely interfere

C. Walking Ability

0 1 2 3 4 5 6 7 8 9 10
 Does not Completely interfere

D. Normal work (Includes both work outside the home and housework)

0 1 2 3 4 5 6 7 8 9 10
 Does not Completely interfere

E. Relation with other people

0 1 2 3 4 5 6 7 8 9 10
 Does not Completely interfere

F. Sleep

0 1 2 3 4 5 6 7 8 9 10
 Does not Completely interfere

G. Enjoyment of life

0 1 2 3 4 5 6 7 8 9 10
 Does not Completely interfere

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Appendix S Behavioural/Cognitive Interventions for Acute Pain

Type of Treatment	Description	Goal
Behavioural/Cognitive Interventions		
Desensitization	Systematic gradual exposure to feared situations or objects.	Decrease anxiety
Positive reinforcement	Positive statements and tangible rewards after a painful procedure	Transform meaning of pain from a punitive to challenging event
Relaxation	Progressive relaxation of muscle groups combined with controlled breathing	Decrease anxiety and pain
Preparation	Explaining the steps of the procedure and providing sensory information about the procedure	Help child to develop a realistic expectation about a procedure
Memory change	Helping child to more positively reframe any negative memories about previous procedures	To reduce anticipatory distress and, over time, procedural distress, through realistic memories
Hypnosis	Dissociate from painful experience through involvement in imagined fantasy that is fun and safe	Take focus away from procedure and enhance sense of mastery through metaphor in imagined experience
Thought stopping and positive self-statements	During times of anxiety, the child repeats “stop” when anxious thoughts occur, and repeats a set of positive thoughts	Replace catastrophic thinking and reduce anxiety
Modeling and rehearsal	Demonstration of a mock procedure by another child or adult who demonstrates positive coping behaviours; children can then practice procedure using coping techniques	Provide information about the procedure and suggest helpful strategies that can be used during procedure to cope with pain and anxiety
Distraction	Techniques include counting, blowing bubbles, or talking about topics unrelated to the procedure	Shift attention away from the procedure and pain onto more enjoyable things
<p>Other approaches that may be successful include:</p> <ul style="list-style-type: none"> ■ Verbal preparation and communication with health care providers ■ Sensorimotor strategies: especially with infants, the use of pacifiers, swaddling, rocking and holding ■ Imaginative involvement: especially with children, using imaginative stories or “pain switches” or “anesthetic gloves” ■ Physical strategies: application of heat or cold, massage, immobilization, rest or exercise ■ Music, art and play therapies 		

Appendix T

World Health Organization: Step-wise or Laddered Approach to Pain Management

PAIN LEVEL	OPTIONS	CONSIDERATIONS
Step 1: Mild Nociceptive Pain	1.Acetaminophen 2.NSAIDs	1. May be contraindicated; i.e. hepatic impairment 2. May be contraindicated; i.e. coagulopathy, gastric bleed or impairment
Step 2: Moderate Nociceptive Pain	<i>Opioids below with/without non-opioid adjuncts</i> 1.Codeine 2.Oxycodone 3.Morphine 4.Hydromorphone	1. Not effective if CYP2D6 deficiency 2-4. Monitor for oversedation, respiratory depression, abuse, adverse effects (i.e. PONV, allergy)
Step 3: Severe Nociceptive Pain	<i>Opioids below with/without non-opioid adjuncts</i> 1.Morphine 2.Hydromorphone 3.Fentanyl	1-3. Monitor for oversedation, respiratory depression, abuse, adverse effects (i.e. PONV, allergy)
Adjuvants	Anticonvulsants Neuroleptics Anxiolytics Antidepressants Corticosteroids	Carbamazepine Prochlorperazine Haloperidol Diazepam Amitriptyline Prednisolone

**Doses are patient-dependent with consideration to individual factors such as body weight, invasiveness of surgery, comorbidities (e.g., obstructive sleep apnea, chronic obstructive pulmonary disease, etc).*

Adapted from: World Health Organization. (2008). *Analgesic ladder*. Retrieved from http://www.who.int/medicines/areas/quality_safety/Scoping_WHOguide_non-malignant_pain_adults.pdf ; World Health Organization (2008). *Pain relief ladder*. Retrieved from <http://www.who.int/cancer/palliative/painladder/en/>

Appendix U Pharmacological Analgesics

Class	Examples	Type of Pain Effective for:
Opioid Receptor Antagonists	Codeine	mild to moderate
	Oxycodone	moderate to severe
	Pentazocine	some use in acute pain
	Morphine	severe pain, “gold standard”
	Hydromorphone	severe pain
	Fentanyl	acute pain, or slow release for chronic
	Methadone	acute pain, or management of withdrawal symptoms
NSAIDs and Tylenol: Inhibit the effects of cyclooxygenase (COX), which is an enzyme that converts arachidonic acid into prostaglandins (PG), which is a potent inducer of pain, especially during inflammatory events in the CNS.	NSAIDs: First generation: Aspirin, ibuprofen, naproxen, Second generation: Celecoxib, Rofecoxib	mild somatic or visceral pain
	Tylenol Tylenol works by inhibiting COX 2 in the CNS and brain. COX 2 in the brain is called COX 3 by some experts. It has minimal effect on prostaglandin synthesis in the periphery, which is why it has minimal side effects such as GI upset. Unfortunately, Tylenol has no function as an anti-inflammatory agent.	Cox 2 is “bad” cyclooxygenase, and is found mainly in injured tissues in the CNS and in the brain.
Tri-cyclic antidepressants (TCA)	Amitriptyline: the first choice, abundant literature to support efficacy Imipramine (Tofranil) Clomipramine (Anafranil) Nortriptyline (Pamelor) Desipramine (Norpramin) Doxepin (Sinequan)	Mechanism of action not fully understood: Inhibition of serotonin and norepinephrine OR Block sodium channels, adenosine receptors, and possibly NMDA receptors?
Anticonvulsants	Gabapentin Carbamazepine Phenytoin Clonazepam	Treatment of trigeminal neuralgia painful diabetic neuropathy postherpetic neuralgia Restless leg syndrome Phantom limb (deafferentation pain) and stump pain Pain following CVA
Triptans	Sumatriptan (Imitrex) Rizatriptan (Maxalt) Zolmitriptan (Zomig) Naratriptan (Amerge)	First-line for migraine Cluster headaches
Calcium Channel Blockers	Leconotide	Blocks calcium channel ⁷ vasodilation e.g., Leconotide <ul style="list-style-type: none"> • Selective blocking • No side effects • Given intravenously • Post-transplant with acute bone pain syndrome • In combination with a potassium channel opener
Local Anesthetic Intravenously	Lidocaine	Acts as antiinflammatory reducing the upregulation of proinflammatory cytokines

Adapted from: Canadian Medical Association, 2010; College of Physicians and Surgeons of Ontario, 2000; Gordon, June, & Dahl et al, 2005; Gray, 2007; Hart, 2008; Institute for Clinical Systems Improvement (ICSI), 2009; Macintyre, Scott, Schug, Visser, & Walker, 2010. (See Resource 10: Assessment and Management of PeriAnesthesia Pain)

Appendix V

Sedation Assessment Scales (Three Examples)

Inova Sedation Scale (ISS)		Richmond Agitation and Sedation Scale (RASS)	
1 – Alert		+4	Combative violent, immediate danger to staff
2 – Occasionally drowsy, easy to rouse		+3	Very Agitated Pulls or removes tube(s) or catheter(s); aggressive
3 – Dozing intermittently		+2	Agitated Frequent non-purposeful movement, fights ventilator
4 – Asleep, easy to waken		+1	Restless Anxious, apprehensive but movements not aggressive or vigorous
5 – Difficult to awaken		0	Alert & calm
6 – Unresponsive		-1	Drowsy Not fully alert, but has sustained awakening to voice (eye opening & contact \geq 10 sec)
		-2	Light sedation Briefly awakens to voice (eye opening & contact < 10 sec)
		-3	Moderate sedation Movement or eye-opening to voice (but no eye contact)
		-4	Deep sedation No response to voice, but movement or eye opening to physical stimulation
		-5	Unarousable No response to voice or physical stimulation

Source: Pain Manag Nurs © 2009 W.B. Saunders

Source: Pain Manag Nurs © 2009 W.B. Saunders

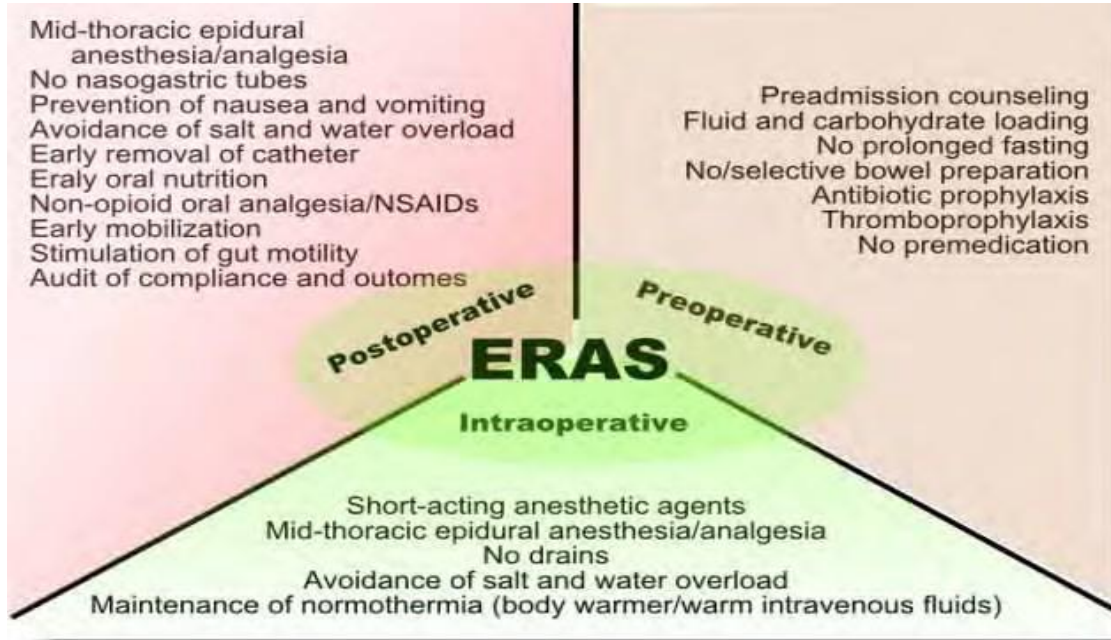
Pasero Opioid-induced Sedation Scale (POSS)
<p>S = Sleep, easy to arouse <i>Acceptable; no action necessary; may increase opioid dose if needed</i></p> <p>1 = Awake and alert <i>Acceptable; no action necessary; may increase opioid dose if needed</i></p> <p>2 = Slightly drowsy, easily aroused <i>Acceptable; no action necessary; may increase opioid dose if needed</i></p> <p>3 = Frequently drowsy, arousable, drifts off to sleep during conversation <i>Unacceptable; monitor respiratory status and sedation level closely until sedation level is stable at less than 3 and respiratory status is satisfactory; decrease opioid dose 25% to 50%¹ or notify prescriber² or anesthesiologist for orders; consider administering a non-sedating, opioid-sparing nonopioid, such as acetaminophen or a NSAID, if not contraindicated.</i></p> <p>4 = Somnolent, minimal or no response to verbal and physical stimulation <i>Unacceptable; stop opioid; consider administering naloxone^{3,4}; notify prescriber² or anesthesiologist; monitor respiratory status and sedation level closely until sedation level is stable at less than 3 and respiratory status is satisfactory.</i></p> <p>¹Appropriate action is given in italics at each level of sedation. ²Opioid analgesic orders or a hospital protocol should include the expectation that a nurse will decrease the opioid dose if a patient is excessively sedated. ³For example, the physician, nurse practitioner, advanced practice nurse, or physician assistant responsible for the pain management prescription. ⁴Mix 0.4 mg of naloxone and 10 mL of normal saline in syringe and administer this dilute solution very slowly (0.5 mL over 2 minutes) while observing the patient's response (titrate to effect) (Source for naloxone administration: Pasero, Portenoy, McCaffery M. Opioid analgesics, in <i>Pain: Clinical Manual</i> [ed 2]. St. Louis, MO, Mosby 1999, p. 267; American Pain Society [APS]. <i>Principles of Analgesic Use in the Treatment of Acute Pain and Chronic Cancer Pain</i> [ed 5]. Glenview, IL, APS, 2003.) ⁵Hospital protocols should include the expectation that a nurse will administer naloxone to any patient suspected of having life-threatening opioid-induced sedation and respiratory depression.</p>

Source: Pain Manag Nurs © 2009 W.B. Saunders

Source: Nisbet, & Mooney-Cotter, 2009.

Appendix W ERAS Protocol (EP)

Source: Enhanced Recovery After Surgery (ERAS®) Society. (2013). *ERAS protocol (EP)*. Retrieved from <http://www.erassociety.org/index.php/eras-care-system/eras-protocol>



Appendix X

STOP-Bang Questionnaire: Screening Tool for OSA

		YES	NO
S	S noring: Do you snore loudly (loud enough to be heard through closed doors)?		
T	T ired: Do you often feel tired, fatigued, or sleepy during daytime?		
O	O bserved: Has anyone observed you stop breathing during your sleep?		
P	P lood P ressure: Do you have or are you being treated for high blood pressure?		
B	B MI: BMI more than 35 kg/m ² ?		
A	A ge: Age over 50 years old?		
N	N eck circumference: Neck circumference >40 cm?		
G	G ender: Male?		

Adapted from: Chung, F., Subramanyam, R., Liao, P., Sasaki, E., Shapiro, C., & Sun, Y. (2012). High STOP-Bang score indicates a high probability of obstructive sleep apnoea. *British Journal of Anaesthesia*, 108(5), 768–775. doi:10.1093/bja/aes022

Results indicate:

High risk of OSA: Yes to ≥ 3 questions. Low risk of OSA: Yes to <3 questions.

"There is a greater probability of having OSA when the scored total is higher on the STOP-Bang questionnaire. A STOP-Bang score of <3 will allow the healthcare team to rule out patients who do not have OSA. A STOP-Bang score of 5–8 will allow the team to identify patients with increased probability of moderate/severe OSA" (Chung, Subramanyam, Liao, Sasaki, Shapiro, & Sun, 2012, p. 773).