Medical Directives for Physician Assistant – Surgical Program Orthopedic Division

☐ Harmonized

Medical Advisory Committee Approved: November 30, 2017

Authorizing Prescribers

Privileged Orthopedic Surgeons practicing at ___

Authorized to Whom

Orthopedic Physician Assistants (PA) who:

- Are certified Physician Assistants through the Canadian Association of Physician Assistants or National Commission on Certification of Physician Assistants
- Are currently employed within the surgical program at xxx.

Co-implementers:

- Nurses employed at xxx may co-implement this Medical Directive within the tables below.
- Medical Radiation Technologists (MRT) (R) employed at xxx may co-implement this Medical Directive for Diagnostic Tests/Interventions outlined in Table 2: Diagnostic Tests/Interventions .
- Pharmacists at xxx may co-implement this Medical Directive for Medications outlined in Table 1: Medications.
- Laboratory Technologists/Assistants at xxx may co-implement this Medical Directive for Diagnostic Tests/Interventions outlined in Table 2: Diagnostic Tests/Interventions.
- Respiratory Therapist (RT) employed at xxx may co-implement this Medical Directive for Diagnostic Tests/Interventions outlined in Table 2: Diagnostic Tests/Interventions, specifically the administration of oxygen.
- Dietitians employed at xxx may co-implement this Medical Directive for Diagnostic Tests/Interventions in Table 2: Diagnostic Tests/Interventions.
- The Antimicrobial Stewardship Team at xxx may co-implement this Medical Directive for the assessment of antibiotics listed in the Medications outlined in the Table 1: Medications below.

Patient Description/Population

Orthopedic patients 18 years of age or older receiving care at xxx

Order and/or Procedure

- This medical directive includes delegation of the following controlled acts:
    1. Performing a procedure on tissue below the dermis or below the surface of a mucous Membrane
    5. Putting an instrument, hand or finger,
        iv. beyond the anal verge

- The PA will obtain a comprehensive health history and perform a physical assessment to determine current medical status and to subsequently select specific investigations and/ or treatment for patients outlined in this Medical Directive. See Tables 1: Medications, Table 2: Diagnostic Tests/Interventions and Table 3: Consultations attached.
- The PA will discuss with the Authorizing Prescriber the patient's physical assessment and the result of any diagnostic investigations obtained by the PA for further management.
- The PA will communicate the patient's plan of care to the patient and family members.
- The PA will complete admission medication orders based on the best possible medication history
    - The PA will complete the medication treatment and review form upon transfer Intra-hospital transfers to an Alternate Level of Care (eg. transfer from acute care to rehabilitation or complex continuing care).
- The PA will complete the discharge prescriptions summary form on discharge for patients that are discharged to rehab facility, long term care, restorative care, convalescent care and/or home.
- Co-implementors: Nurses, Pharmacists, RTs, MRT (R)s, Dietitians, and the Antimicrobial Stewardship Team will co-implement this medical directive as per indications outlined in the attached tables. Co-implementers are responsible for determining if the directive/procedure is appropriate from their clinical perspective.

Indications to the Implementation of the Directive

- Certified PAs through the Canadian Association of Physician Assistants or National Commission on Certification of Physician Assistants that are employed by xxx Division of Orthopedics.
- See attached Tables 1: Medications, Table 2: Diagnostic Tests/Interventions and Table 3: Consultations for specific indications.
- PAs that have the required knowledge, skill and judgment to implement the medical directive.
- Successful completion of Bloody Easy for Physicians within the previous two years.
- Authorizing Prescriber must be available to provide assistance/clarification.

Contraindications to the Implementation of the Directive

- Patient is less than 18 years of age.
- Patient and/or substitute decision maker has not provided consent for assessment, treatment and/or disclosure.
- The PA does not have the necessary knowledge, skill and judgment to perform the delegated acts.
- Specific contraindications as listed in Tables 1, 2 and 3 below.

Consent

- The PA shall not carry out any action listed within this medical directive when patient and/or substitute decision maker (SDM) refuses to consent.
- The PA will disclose to the patient the nature of the proposed treatment, its gravity, any material risks and any special risks relating to the specific treatment in question.
- The PA will obtain informed consent from the patient or SDM before implementing this medical directive for diagnostic imaging, laboratory, and/or medications.
- The PA must have the knowledge and ability to explain how and why the test will be obtained.
- PA must answer any specific questions posed by the patient and/or SDM as to the risks involved in the proposed treatment or implementation of this medical directive.

- PA will disclose the consequences of leaving the ailment untreated.
- PA will disclose available alternative forms of treatment and their risks
- The PA will obtain written consent from the patient or SDM for the transfusion of blood products as per hospital protocol if the indications are met in Table 1: Medications.
- The MRT will obtain informed or written consent from the patient or SDM to apply energy, according to their policies and procedures, prior to implementing this medical directive
  The Nurses, Pharmacists, Laboratory Technologists/Assistants, RTs, Dietitians, will obtain informed consent from the patient or SDM prior to implement of this medical directive

Documentation Requirements

The Physician Assistant will provide:

- Documentation of an implemented directive will be recorded in the order section of the patient's health record and must include:
  - Name of the Medical Directive
  - Date
  - Name and signature of the implementer including credentials
- Documentation of the patient's history, present illness, physical assessment and plan of care within the health record.

Review/Evaluation Process

- All Medical Directives must have final approval by the Medical Advisory Committee (MAC).
- Every 2 years by the Document Sponsor/Owner Group.

References

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Approvals and Signatures

Sponsor/Owner Group	_____ Name	_____ Program
Contact	_____ Name	_____ Position/Title

Department Chief	_____ Name	_____ Signature	_____ Date
Medical Director	_____ Name	_____ Signature	_____ Date
Program Director	_____ Name	_____ Signature	_____ Date
Chair of IPPC	_____ Name	_____ Signature	_____ Date
Chair of NPPC	_____ Name	_____ Signature	_____ Date

Chair of P & T	_____ Name	_____ Signature	_____ Date
Final Approval Chair of MAC	_____ Name	_____ Signature	_____ Date

Authorized By	_____ Name	_____ Signature	_____ Date
	_____ Name	_____ Signature	_____ Date
	_____ Name	_____ Signature	_____ Date
	_____ Name	_____ Signature	_____ Date

This table must **not** be used independently apart from the Medical Directive

Table 1: Medications

Order	Indication	Contraindication	Notes (Optional)
Acetaminophen 325-1000mg PO or PR q6h for up to 4 days or q 4-8h prn To a maximum of 4g/24hrs for patients under 65 years of age and 3g/24hrs for patients over 65 years of age	• Temperature greater than 38.0C (route of measurement must be considered) • Patient experiencing mild to moderate pain (e.g. scoring 7/10 or less on pain scale)	• Allergy or sensitivity to acetaminophen; • History of hepatitis or other liver disease; • Abdominal pain; • Intoxication	
Dimenhydrinate 12.5-50mg IV/IM/PO q6h prn To a maximum of 200mg/24hrs.	• Nausea and vomiting • Gastroenteritis • Motion sickness / peripheral vertigo	• Hypersensitivity • Allergy	Reduce dose in patients with a history of seizures and renal dysfunction within the range specified
Metoclopramide 5-10mg q6h IV/IM/PO prn To a maximum of 40mg/24h.	• Nausea/vomiting • Used to treat nausea and vomiting associated with conditions such as, malignancy, migraine headaches, vertigo and emetogenic drugs	• Known sensitivity or intolerance to the drug • Mechanical GI obstruction, perforation, or hemorrhage; pheochromocytoma • History of seizure disorder (eg, epilepsy) • pregnant or lactating patient • patients with Parkinsons disease	Reduce dose in patients with a history of seizures and renal dysfunction within specified range
Ondansetron 4-8mg	• Nausea/vomiting	• Hypersensitivity to drug.	Typically used as nausea

Order	Indication	Contraindication	Notes (Optional)
PO/IV/IM q6h PRN		• Congenital or acquired long QT syndrome • Hepatic impairment • Recent abdominal surgery	prevention before chemo, X-Ray Therapy (XRT), or post-operative.
Aluminum hydroxide and magnesium hydroxide (Diovol Plus) 10-20mL PO once daily PRN	• Heartburn and upset stomach • Gastroesophageal reflux disease	• Hypersensitivity to drug. • Colostomy or ileostomy • GI obstruction • Intestinal perforation • Renal failure/renal disease • Pregnancy - caution	
Acetylsalicylic Acid (ASA) 160mg PO chewable or immediate release (IR) one dose	• Chest pain consistent with ischemic heart disease (e.g., dull chest pain/pressure, pressure-like sensation, heavy feeling in chest, squeezing and tightness in chest, poorly localized pain); and known Coronary Artery Disease • Only if patient is not currently taking aspirin.	• Chest pain as a result of trauma or physical injury • Known allergy to Aspirin or non-steroidal anti-inflammatories (NSAIDs).	Obtain an Electrocardiogram (ECG) and promptly notify the MRP**.**
Packed Red Blood Cells (PRBC's) 1 unit IV over 1-3hrs, re-assess Hb post transfusion. Hold maintenance fluids during transfusion.	• Hb level below 80g/L in patients with cardiovascular disease or acute coronary syndrome • Hb levels below 70g/L in patients without cardiac disease • Symptomatic anemia with HR greater than 100bpm or Systolic BP less than 80mmHg, fatigue, dizziness, chest pain, shortness of breath • If SBP less than 80 mmHg consult MRP immediately	• Patient or SDM refusing transfusion • Hemoglobin levels above 80L in patients without cardiovascular disease • Patients without any signs or symptoms of anemia	Written consent from patients or SDM must be obtained prior to administration of blood products. Hold maintenance fluids during transfusion. The rate should be slower if the patient has TACO risk factors: cardiac dysfunction, renal dysfunction, > 60 years

Order	Indication	Contraindication	Notes (Optional)
			old, positive fluid balance. In addition, Lasix IV should be considered pre-tx.
Furosemide 20mg IV x 1 dose before the unit of PRBC.	• Patients at risk of Transfusion Associated Circulatory Overload: • Cardiac dysfunction (MI, CHF, S3, S4) • Renal dysfunction • Age > 60 years • Positive Fluid balance	• Hypersensitivity to Furosemide • Hypotensive with Systolic BP<80 • Severe hyponatremia • Severe hypokalemia	
Polyethylene Glycol (PEG) 17g (1 sachet) PO once daily	• Post-operative constipation	• Hypersensitivity to drug • Intestinal obstruction • Acute intestinal inflammation (eg, Crohn's disease) • Colitis ulcerosa • Appendicitis • Abdominal pain of unknown origin • Patients on fluid restriction	
Sennosides 17.2 mg PO once daily at bedtime	• Post-operative constipation	• Hypersensitivity to drug • Intestinal obstruction • Acute intestinal inflammation (eg, Crohn disease), • Colitis ulcerosa • Appendicitis • Abdominal pain of unknown origin	
Glycerin Suppository PR x 1 dose daily prn	Post-operative constipation		
Lactulose 30mL PO x 1 dose daily for 3 days or prn	Post-operative constipation	• Hypersensitivity to drug • Galactosemia • GI obstruction or FB • Recent GI surgery	

Order	Indication	Contraindication	Notes (Optional)
Bisacodyl 5-15mg PO prn; 10mg PR daily prn	Post-operative constipation	• Hypersensitivity to drug • Intestinal obstruction • Acute intestinal inflammation (eg, Crohn disease), • Colitis ulcerosa • Appendicitis • Abdominal pain of unknown origin	
Magnesium Hydroxide 400mg/5ml: 15-30mL daily at bedtime	Post-operative constipation	• Hypersensitivity to drug • Intestinal obstruction • Acute intestinal inflammation (eg, Crohn disease), • Colitis ulcerosa • Appendicitis • Abdominal pain of unknown origin	
Fleet enema PR Once daily prn	Post-operative constipation	• Hypersensitivity to drug • Ascites • Renal impairment, • Heart failure • Imperforate anus • Known or suspected GI obstruction • Megacolon (congenital or acquired, hypersensitivity •	Caution with Irritable bowel disease
Tap water enema PR once daily prn	Post-operative constipation	• Undiagnosed nausea/vomiting • GI obstruction/perforation/ ileus • Toxic megacolon • Rectal bleeding • Appendicitis	Caution with Irritable bowel disease
Nitrofurantoin (Macrobid) 100mg oral tablet PO	Urinary tract infection: • Dysuria, frequency, or urgency	• Hypersensitivity to drug	Nitrofurantoin (Macrobid) 100mg oral tablet PO BID for

Order	Indication	Contraindication	Notes (Optional)
BID for 3-5 days Cotrimoxazole DS 1tab PO BID for 3-5 days Amoxicillin 875mg/clavulanic acid 125mg (clavulin) PO QID for 3-5days OR Amoxicillin 500mg/clavulanic acid 125mg (clavulin) PO TID for 3-5 days Ciprofloxacin 250mg -500mg oral tablet PO BID or 400mg IV BID for 3-5 days	• Positive routine and microscopic (R&M) laboratory analysis for leukocytes or nitrites. • Antibiotic selection is based on Culture and Sensitivity report (C&S)	•	3-5 days Cotrimoxazole DS 1tab PO BID for 3-5 days Amoxicillin 875mg/clavulanic acid 125mg (clavulin) PO QID for 3-5days OR Amoxicillin 500mg/clavulanic acid 125mg (clavulin) PO TID for 3-5 days Ciprofloxacin 250mg -500mg oral tablet PO BID or 400mg IV BID for 3-5 days
Nicotine Replacement Therapy Protocol	This medication regime is to be administered to cigarette smokers who are admitted or receiving treatment within the xxx that may experience and/or are experiencing and/or request administration of these medications for nicotine withdrawal and/or as a smoking cessation aid.	• Allergy and/or hypersensitivity to nicotine or the components of the preparations • Non-smokers or occasional smokers (less than 3 cigarettes daily) • Immediate post myocardial infarction period • Life-threatening arrhythmias • Severe or worsening angina-pectoris • Recent stroke • Pregnant or breastfeeding women	Includes Nicotine Gum and Nicotine Transdermal Patch

Order	Indication	Contraindication	Notes (Optional)
		• Generalized skin disorder • Active temporomandibular joint disease (applies to gum only)	
IV Normal Saline (0.9% Sodium Chloride Solution) IV bolus of 10-20mL/kg of an isotonic crystalloid (eg, 0.9% sodium chloride) over 1 hour Maintenance fluids infusion 50-100mL	• NPO Patient, surgical patient, euvolemic, awaiting surgery • Establish or maintain a fluid or electrolyte balance • Vomiting • Nausea (unable to take fluids PO) • Diarrhea • Painful to swallow • Dry mucus membranes • Decreased skin turgor • Tachycardia or hypotension related to dehydration • Administer continuous or intermittent medication	• severe hypertension • pulmonary edema • Hold maintenance fluids during transfusions	IV Normal Saline (0.9% Sodium Chloride Solution) IV bolus of 10-20mL/kg of an isotonic crystalloid (eg, 0.9% sodium chloride) over 1 hour Maintenance fluids infusion 50-100mL

Table 2: Diagnostic Tests/Interventions

Order	Indications	Contraindications	Notes (optional)
CBC, electrolytes, urea, creatinine once daily for 3 days	Routine daily pre-operative and post-operative blood work. Chest pain, change in status, hemorrhage, seizure		
Blood glucose (fasting and random) / Point of Care blood glucose monitoring BID to QID	Monitoring of blood glucose in diabetics or other patients with unstable blood glucose; screening of borderline diabetics		PA to determine frequency of Point of Care blood glucose monitoring based on stability of diabetic patient's blood sugars and health status within specified range
Hemoglobin A1C once	Monitoring of blood glucose in diabetics or other patients with unstable blood glucose; screening of borderline diabetics		
Amylase, Albumin, ALT, Alk Phos, bilirubin direct and total once	Gastrointestinal bleed, epigastric pain, jaundice		
Type and Screen once, PTT, INR once daily for 3 days	Pre-operative, post-operative, chest pain, hemorrhage, CVA, GI bleed.		
Extended lytes (Phosphate, Calcium, magnesium) once daily for 3 days	Poor nutrition, ECG abnormalities		
ESR, CRP once	Pre-operative Inflammatory arthopathy		

Order	Indications	Contraindications	Notes (optional)
	Septic Joint		
bHCG once	Female, trauma		
Dilantin, Carbamazepine, valproic acid, phenobarb level once	Current use. Seizure occurrence		
Blood culture X 2 once	Febrile, cellulitis or osteomyelitis suspected		
Bone Scan once	Osteomyelitis assessment		
Diet: NPO Clear fluids, full fluids, regular, diabetic, lactose free, fluid restricted diet, heart healthy	Pre-op preparation, severe nausea and vomiting Diet appropriate for patient's medical condition and tolerance	Able to tolerate oral/enteral diet Post op ileus, severe nausea/vomiting	 If risk for aspiration or difficulty swallowing, Speech Language Pathologist to see.
Follow up in fracture clinic in 2 weeks	Patients going home.		
Transfer to Rehab	Patients requiring transfer to rehab		
Doppler ultrasound – arterial and/or venous	Suspected deep vein thrombosis; evaluation of suspected peripheral vascular disease		Doppler results indicative of deep vein thrombosis require physician notification
Electrocardiogram (ECG) Notify MRP immediately	• Acute non-traumatic chest pain, heaviness, squeezing sensation • Unstable angina or suspected MI. • Palpitations • Cardiac shortness of breath • Acute upper quadrant abdominal		

Order	Indications	Contraindications	Notes (optional)
	pain • Active GI bleeding • Major and/or multiple trauma • Overdose of medications • Syncope in any age; and/or • Weakness, dizziness, or new onset confusion, in the elderly • Abnormal vital signs		

Insertion of saline lock or discontinuation of saline lock
 	
MRP must be notified immediately unless for medication administration only
	Saline lock insertion:
	• IV access required for administration of medications.
	• Acute chest pain
	• Shortness of breath
	• Abdominal/flank pain
	• Active GI bleeding
	  ○ Melena
	  ○ Hematochezia
	• Altered level of consciousness
	• Hemodynamically unstable. HR greater than 100bpm. SBP less than 80mmHg.
	
	Saline lock discontinue:
	• Adequate hydration
	• Hemodynamically stable.
	•		

Urinary Catheter protocol	• The treatment of urinary retention. • Bladder incontinence • Collect clean urine sample		

Order	Indications	Contraindications	Notes (optional)
Oxygen therapy as required (initiate, titrate, or discontinue) to maintain $Sp0_2$ greater than 92% or 88-92% in patients with COPD	For O2 saturation less than indicated		
Urine routine and microscopic, culture and sensitivity, drug screen once	• Acute non-traumatic abdominal/flank pain • Trauma • Weakness and/or new onset confusion in the elderly • Fever • History or incident of seizure • History or incident of stroke • Signs and symptoms of urinary tract infections (e.g., burning micturition, urinary hesitancy or urgency, hematuria, odour) • Post op delirium		
Suture/staple removal from incision	• Staples removed from incision 14 days post-op	If concern for delayed closure (ie. immunocompromised)	If wound infection or dehiscence, notify MRP. This may require opening of wound, debridement and packing.
Chest x-ray 1 view as a portable or 2 views in the radiology department.	• Short of breath, chest pain, query pneumonia or aspiration	Pregnancy	
Abdomen/Pelvis (KUB) x-ray 1 view or 2 views to include upright/decubitus view.	• Query ileus or gastrointestinal obstruction	Pregnancy	

Order	Indications	Contraindications	Notes (optional)
x-ray: Hand, wrist, finger, forearm, elbow, humerus, shoulder, toe, foot, ankle, tibia/fibula, knee, femur, hip, c-spine, t-spine, l-spine, pelvis, sacrum, or coccyx 2-3 views, 90 degrees from each other.	• Trauma/Fall • Query fracture of extremity	Pregnancy	
Assess anal tone	• Spinal injury		

Table 3: Consultations

Consultation order	Indications	Special Considerations
Critical Care Outreach Team (CCOT)	Perioperative assessment of multiple or complex medical conditions	
Community Care Access (CCAC)	Discharge planning. (i.e. wound care, drain care, medication administration), personal support worker, palliative care	
Medical Consults	Pre and Post-operative indications. Changes in health status. Medication adjustments	
Anesthesiologist	Pre and post-operative assessment. Pain control	
Acute Pain Service	Post-operative pain control	
Respiratory Therapy	Home oxygen assessment	
Physical Therapy, Occupational Therapy, Social Work	Mobility, home safety, family planning and goals of care	
Wound Care	Complex wounds	
Speech Language Pathology	Difficulty swallowing. Recent stroke. Change in mental status	
Dietitian	Malnutrition. Poor oral intake.	
Pharmacy	For Medication consultation	