



Harmonized

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Authorizing Prescriber(s)

All Lakeridge Health Emergency Department Physicians.

Authorized to Whom

All Nurses, Registered Respiratory Therapists (RRT) and Physician Assistants (PA) who are employees of Lakeridge Health. The Health Care Professional (HCP) must review any related hospital policies and demonstrate competency supported by a Clinical Practice Leader (CPL) or delegate, and successfully pass an evaluation.

The content of the educational package will be approved by the Emergency Program Quality Council. In order to initiate the orthopaedic algorithm, nurses must complete the Canadian Triage and Acuity Scale (CTAS) training and nurses/PAs must complete supplementary orthopaedic education (i.e. Ottawa ankle rules, Ottawa knee rules etc.).

Co-Implementers

Medical Radiation Technologist (Radiography)

Phlebotomist/Med Lab Assistant

Nurse

RRT

Patient Description/Population

Any patient in an LH ED who meets procedure specific indications as per the [order table](#).

Order and/or Procedure

List is in alphabetical, not sequential, order; any one or combinations of the order/procedures below may be performed. For any tests performed under authorization of this medical directive, results **must** be reviewed by the physician. Should a patient leave prior to being assessed by a physician or results received, the patient must remain active on the ED tracker until all results are received and reviewed by the physician. Any abnormal results will be managed using the identified discrepancy/call back procedure.

To access order and/or procedure click on [link](#) below:

[Abdominal Pain Management- Adults](#)

[Analgesia for \(Mild to Moderate\) Pain- Adults](#)

Document Sponsor/Owner Group: (Emergency Department, Date Approved 01MAY2020)

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Controlled Act Being Delegated	Group(s) who require a delegation to perform acts within this medical directive.	Authorizer(s)/ Delegator(s)
Administering a substance by injection or inhalation <ul style="list-style-type: none"> • Administering fluid through a PVAD or CVAD • Administration of: <ul style="list-style-type: none"> ○ Ketorolac ○ Oxygen ○ Salbutamol ○ Ipratropium ○ Ondansetron 	Physician Assistants	ED physicians
Performing a procedure on tissue below the dermis or below the surface of a mucous membrane <ul style="list-style-type: none"> • IV insertion • Venipuncture • Capillary Blood glucose test 	Physician Assistants	ED physicians
Putting an instrument, hand or finger <ol style="list-style-type: none"> i. beyond the opening of the urethra, ii. beyond the labia majora, iii. beyond the anal verge <ul style="list-style-type: none"> • Urinary catheterization • Administration of Acetaminophen PR 	Physician Assistants	ED physicians

Indications to the Implementation of the Directive

Any patients with procedure specific indications as listed in the [order table](#).

Contraindications to the Implementation of the Directive

This medical directive must not be implemented in the following circumstances:

- HCP has not completed or maintained competency for the initiation of the Medical Directive
- Patient or SDM (Substitute decision maker) refuses to consent
- Procedure specific contraindications as listed in the order table
- Known allergies or sensitivities to medication.



Consent

The HCP implementing the medical directive must obtain consent if the patient is capable of providing it. In an emergency situation, if the patient is not capable of providing consent, the HCP may administer treatment without consent if, in his or her opinion, all of the following are true:

- the patient is incapable with respect to the treatment;
- the patient is experiencing severe suffering or is at risk of suffering serious bodily harm if the treatment is not administered promptly; and
- it is not reasonably possible to obtain consent or refusal on the person's behalf or the delay required to do so will prolong the suffering that the patient is experiencing or will put the patient at risk of suffering serious bodily harm.

Documentation Requirements

In addition to standard documentation practices, the HCP implementing this medical directive must document in the order section of the ED chart the following:

- The procedure performed on the patient
- The name of the medical directive
- The name of the implementer
- Legible signature of implementer, including credentials (unless documenting electronically)
- Date and time (unless documenting electronically).

Review/Evaluation Process

Emergency Program Quality Council will review this document every 2 years.

References

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

Appendix A: Order Table Form

Abdominal Pain Management- Adults

Order:	Indications:	Contraindications:	Notes:
1. CBC, Na, K, Cl, CO ₂ , Urea, Creatinine, Random Glucose, AST, ALK, Bili, Albumin, ALT, Lipase, INR, Urine R+M 2. NPO	Patients with acute onset abdominal pain		
3. ECG	Pain above umbilicus		
4. Urine or Serum β HCG (depending on LH site)	Female of child bearing years		
5. Lactate	All patients 50 years of age and older		
6. Type and Screen	Suspected hemorrhage		
7. Urine C+S	Patient has signs and symptoms of a urinary tract infection		
8. Initiate IV 0.9% sodium chloride at 30 mL/hr OR saline lock	IV is required in the professional judgement of the authorized HCP		
9. Ondansetron 8 mg PO once (PO includes ODT and soluble film) OR Ondansetron 4 mg IV once	Nausea and vomiting		ODT- Oral disintegrating tablet



Analgesia for (Mild to Moderate) Pain- Adults

Order:	Indications:	Contraindications:	Notes:
Acetaminophen 650 mg PO once with a sip of water OR Ibuprofen 400 mg PO once with a sip of water OR Ketorolac 15 mg IM once	Patients with mild to moderate pain (less than 8 on the 0 - 10 pain scale, or as defined in Pain Patient Care Standard) Ketorolac for patients who cannot tolerate PO meds	Decreased level of consciousness, difficulty swallowing PO medication Acetaminophen: Recent acetaminophen administration in the last 3 hours OR more than 3 doses in the past 24 hours Ibuprofen OR Ketorolac: Recent ibuprofen/ketorolac administration in the past 6 hours OR more than 3 doses in the past 24 hours Allergic manifestations precipitated by ASA or other non-steroidal anti-inflammatory agents Pregnancy History of cirrhosis, chronic liver disease, alcoholism, active peptic ulcer disease, gastrointestinal bleeding or impaired renal function	

Analgesia for Pain- Paediatrics

Order:	Indications:	Contraindications:	Notes:
Acetaminophen 15 mg/kg PO/PR once (maximum dose 650 mg) OR Ibuprofen 5 - 10 mg/kg PO once (maximum dose 400 mg)	Patients who are greater than 3 months old with clinical suspicion of pain or self/parent report of pain	Decreased level of consciousness Acetaminophen: Recent acetaminophen administration in the last 3 hours OR more than 5 acetaminophen doses in past 24 hour period History of cirrhosis or chronic liver disease Ibuprofen: Recent ibuprofen administration in the past 6 hours OR more than 3 doses in the past 24 hours Allergic manifestations precipitated by ASA or other non-steroidal anti-inflammatory agents History of kidney injury or impaired renal function, any clinical bleeding or platelet disorders	Measure weight (kg) of child NOTIFY Physician STAT for child less than 3 months of age presenting with pain or temperature greater than or equal to 38°C



Asthma Management- Paediatrics

Order:	Indications:	Contraindications:	Notes:
<p>1. Paediatric Respiratory Assessment Measure (PRAM) Score (Appendix B) NOTIFY Physician / RRT STAT if PRAM score is 4 or greater</p> <p>2. Administer oxygen via nasal prongs or mask if SpO2 less than or equal to 94%</p> <p>3. Salbutamol (Ventolin) 100 mcg/puff by metered dose inhaler (MDI) and spacer q 20 min x 3 based on the following dosing: 1 - 3 years: 4 puffs/dose 4 - 6 years: 6 puffs/dose 7 years and up: 8 puffs/dose</p> <p>4. Ipratropium (Atrovent) 20 mcg/puff by MDI and spacer q 20 min x 3 based on the following dosing: Less than 20 kg: 3 puffs/dose 20 kg or greater: 6 puffs/dose</p>	<p>Paediatric patient (Age 1 - 17 years) with wheeze and/or cough AND asthma diagnosis and/or past history of wheeze AND presents with symptoms of asthma as assessed by the PRAM</p>	<p>Patient presents with history of acute or chronic condition other than asthma, including cardiac conditions.</p> <p>Patient is unable to cooperate with the procedure</p>	



Backboard Removal

Order:	Indications:	Contraindications:	Notes:
Remove backboard	<p>Stable trauma patients who present on a backboard with or without neck pain</p> <p>Conscious and alert</p> <p>Hemodynamically stable</p> <p>Injury within the past 48 hours</p>	<p>Patient less than 18 years of age</p> <p>Major trauma (i.e. chest, head, fractured/deformed femur, suspected unstable pelvis fracture, penetrating trauma)</p> <p>Glasgow Coma Scale less than 15</p> <p>Patient transferred from another hospital</p> <p>Any acute paralysis, decreased motor function or altered sensation (including burning) below the neck</p> <p>Vertebral disease (ankylosing spondylitis, rheumatoid arthritis, spinal stenosis or previous cervical surgery)</p>	<p>Procedure to remove backboard:</p> <ol style="list-style-type: none"> 1. Assemble appropriate team of at least 4 people to log roll patient 2. Maintain C-spine alignment throughout procedure 3. Remove straps and taping from board leaving C-spine collar in place (if applicable) 4. Log roll patient, remove backboard and keep patient supine on stretcher until assessed by a Physician 5. Assess patient for any NEW back, neck or abdominal pain after removal of backboard, and NOTIFY Physician immediately if noted 6. Provide a call bell for patient to ring for assistance 7. Inform Physician of patient’s arrival requesting expeditious assessment



Chest Pain/Cardiovascular for Adults

Order:	Indications:	Contraindications:	Notes:
1. 12 Lead ECG STAT (to be reviewed by Physician as per ED Practice Standards)	Patients presenting with symptoms suggestive of cardiac ischemia or cardiovascular symptoms such as: <ul style="list-style-type: none"> • Discomfort jaw to umbilicus • Upper limb discomfort without known injury • Chest trauma • Syncope/presyncope, vertigo/dizziness • Signs/symptoms of stroke • Shortness of breath • Diaphoresis • Palpitations/irregular heart beat etc. 		
2. Administer oxygen via nasal prongs or mask.	SpO2 less than 92% or SpO2 less than 88% in COPD patients		
3. Continuous cardiac monitoring	Required in the professional judgement of the authorized HCP		
4. Initiate IV 0.9% sodium chloride at 30 mL/hr OR saline lock	IV is required in the professional judgement of the authorized HCP		
5. CBC, Na, K, Cl, CO ₂ , Urea, Creatinine, Glucose, Troponin, INR, PTT	Patients with acute onset chest pain		
6. Type and Screen	ECG elevation suggestive of STEMI		
7. Urine or Serum β HCG (depending on LH site)	If female of child bearing years	Patients obviously pregnant or in confirmed third trimester	
8. Acetylsalicylic Acid (ASA) 160 mg PO chewed once	Conscious with intact gag reflex	History of bleeding peptic ulcer, NSAID induced gastritis OR a history of ASA precipitated asthma Decreased level of consciousness Any ASA within the last 24 hrs	



Electrical Injury

Order:	Indications:	Contraindications:	Notes:
12 Lead ECG (to be reviewed by Physician as per ED Practice Standards)	Patients presenting with electrical injury		

Eye Injury/Discomfort

Order:	Indications:	Contraindications:	Notes:
<ol style="list-style-type: none"> 1. Instill 1 drop of Proparacaine 0.5% or Tetracaine 0.5% topical anesthetic in the affected eye(s) Repeat q 5 - 10 min prn to a maximum of 5 doses 2. 0.9% sodium chloride flush to irrigate eye(s) even if patient has flushed prior to arrival 3. Insert Morgan Lens 	<p>Eye pain caused by any of the following: foreign body/trauma/injury, chemical splash, thermal injury, corneal abrasion</p> <p>Patient must be able to cooperate in the performance of the procedure</p> <p>Required in the professional judgement of the authorized HCP</p>	<p>Visible foreign body in eye</p> <p>Penetrating eye injury</p> <p>Signs and symptoms of a perforation or ruptured globe</p>	<p>For chemical exposure/injury: Consult Ontario Poison Centre and advise Physician of recommendations</p> <p>Do not initiate any orders that are contraindicated according to Poison Centre</p>



Febrile Neutropenia- Early Detection in Cancer Patients

Order:	Indications:	Contraindications:	Notes:
<ol style="list-style-type: none"> 1. CBC, Na, K, Cl, CO₂, Urea, Creatinine, Lactic Acid, Phosphate, ALT, ALP, Bili, Ca, Mg 2. Blood C+S (2 sets) from separate venipuncture sites if no central venous catheter (CVAD) is present. If CVAD present, one from each lumen of CVAD AND one set from peripheral site 3. Urine R+M and C+S 4. CXR PA + Lateral <p>Reason: Febrile Neutropenia</p>	<p>Patients with a cancer diagnosis, who have received treatment within the last 21 days, AND present with a measured or self-reported temperature above 38.3°C at any time or above 38.0°C for more than an hour</p>		

Fever Management- Adults

Order:	Indications:	Contraindications:	Notes:
<p>Acetaminophen 650 mg PO/PR once OR Ibuprofen 400mg PO once</p>	<p>Patients with temperature greater than or equal to 38°C</p>	<p>Decreased level of consciousness, difficulty swallowing PO medication</p> <p>Acetaminophen: Recent acetaminophen administration in the last 3 hours OR more than 3 doses in the past 24 hours</p> <p>Ibuprofen: Recent ibuprofen administration in the past 6 hours OR more than 3 doses in the past 24 hours</p> <p>Allergic manifestations precipitated by ASA or other non-steroidal anti-inflammatory agents</p> <p>Pregnancy</p> <p>History of cirrhosis, chronic liver disease, alcoholism, active peptic ulcer disease, gastrointestinal bleeding or impaired renal function</p>	<p>Repeat and document temperature one hour after administration of medication</p>



Fever Management- Paediatrics

Order:	Indications:	Contraindications:	Notes:
<p>Acetaminophen 15 mg/kg PO/PR once (maximum dose 650mg) OR Ibuprofen 5 - 10 mg/kg PO once (maximum dose 400 mg)</p>	<p>Patients who are greater than or equal to 3 months old with a temperature of greater than or equal to 38°C</p>	<p>Decreased level of consciousness</p> <p>Acetaminophen: Recent acetaminophen administration in the last 3 hours OR more than 5 acetaminophen doses in past 24 hour period History of cirrhosis or chronic liver disease</p> <p>Ibuprofen: Recent ibuprofen administration in the past 6 hours OR more than 3 doses in the past 24 hours Allergic manifestations precipitated by ASA or other non- steroidal anti-inflammatory agents History of kidney injury or impaired renal function, any clinical bleeding or platelet disorders</p>	<p>NOTIFY Physician STAT for child less than 3 months of age presenting with temperature greater than or equal to 38°C</p> <p>Reassess temperature 30 minutes after administration of medication</p>

Inhalational Therapy- Adults

Order:	Indications:	Contraindications:	Notes:
<ol style="list-style-type: none"> Administer oxygen via nasal prongs or mask if SpO2 less than or equal to 92% OR SpO2 less than or equal to 88% in COPD patients Salbutamol (Ventolin) 100 mcg/puff by metered dose inhaler (MDI) and spacer 4 - 8 puffs q 20 min x 3 doses Ipratropium (Atrovent) 20 mcg/puff by MDI and spacer 4 - 8 puffs q 20 mins x 3 doses 	<p>Patients presenting with SOB AND a history of Asthma or Chronic Obstructive Pulmonary Disease (COPD) with one or more of the following:</p> <ul style="list-style-type: none"> Cough Presence of respiratory distress, wheeze, tightness or decreased breath sounds during chest auscultation Severe respiratory distress 	<p>No previous history of Asthma or COPD</p> <p>Decreased level of consciousness</p>	<p>Notify Physician/RRT STAT if patient has change in initial presentation such as: decreased LOC, diaphoretic, cyanotic, initial tachycardia, difficulty speaking, agitated, no relief with B-agonist, SpO2 less than or equal to 88% on supplementary oxygen</p>



Obstetrical Emergency

Order:	Indications:	Contraindications:	Notes:
Re-direct to: New Life Centre (LHPP) Birthing Suite (LHO) Labour and Delivery (LHAP) ****Does not apply at LHB****	Pregnant patient over 20 weeks gestation presenting with a pregnancy related concern (abdominal cramping, abdominal pain, backache, vaginal leaking of fluid, decreased fetal movement, vaginal bleeding, headache, etc.)	Respiratory distress, hemodynamically unstable, imminent delivery, gestation less than 20 weeks, non-pregnancy related concerns (trauma, laceration, injury, etc.)	

Oral Rehydration Therapy (ORT) - Paediatrics

Order:	Indications:	Contraindications:	Notes:
1. 50 mL to 100 mL oral rehydration fluid no more than 5 mL every 1 - 2 minutes once Use small sips of Pedialyte, Enfalyte, Gastrolyte, frozen Pedia pops or other sodium based oral rehydration fluid by age appropriate method (feeding cup, medication cup, syringe or regular cup)	Paediatric patient who presents with c/o vomiting and/or diarrhea (obtain history of oral intake and stools) AND have signs of mild or moderate dehydration	Patient appears lethargic, signs of altered perfusion, bilious or bloody vomiting, and/or child has vomiting alone (no diarrhea) with signs associated with neurologic or toxicological etiology Abdominal pain	Measure weight (kg) of child NOTIFY Physician if ORT is started but patient is unable to tolerate and/or increase their oral intake NOTIFY Physician STAT if deterioration in condition is observed
2. Ondansetron 4 mg PO once (PO includes ODT and soluble film)	For paediatric patients 4 years and older with nausea and/or vomiting	Presenting or history of arrhythmia, cardiac defect Ondansetron dose given in past 8 hours	



Orthopaedic X-ray(s)

Order:	Indications:	Contraindications:	Notes:
<p>ALL orthopaedic X-rays listed below</p> <ol style="list-style-type: none"> 1. NPO 2. Apply ice 3. Immobilize 	<p>Patients 6 years and older with a history of significant injury or trauma</p> <p>Patients must be conscious and alert</p>	<p>Under 6 years of age</p> <p>Open fracture (compromised skin integrity)</p> <p>Neurovascular compromise (CSM deficit) or diminished sensation due to a neurological deficit (e.g. CVA, altered level of consciousness, etc.)</p> <p>Major trauma</p> <p>Pregnant or suspected pregnant patient</p> <p>Suspected intoxication or has distracting injuries and is unable to follow direction, maintain motor control, or is un-cooperative</p> <p>Head injuries or multiple painful injuries</p>	<p>Check colour sensation and movement (CSM) and distal pulses on assessment and after application of any splints/ immobilization</p>



Orthopaedic X-ray(s) (Continued)

Order:	Indications:	Contraindications:	Notes:
<u>Ankle and/or foot</u> X-ray as indicated by examination according to the Ottawa Ankle Rules (Appendix C)	Pain suggestive of fractured ankle or foot which may include deformity, and/or swelling in affected area, impaired range of motion and bony tenderness Bony tenderness or inability to weight bear must be established according to Ottawa Ankle Rules	Any of the above listed contraindications	Patient should not ambulate on affected limb
<u>Clavicle</u> X-ray	Pain suggestive of a fractured clavicle which may include deformity, and/or swelling in affected area, impaired range of motion and bony tenderness	Any of the above listed contraindications	
<u>Forearm (radius/ulna)</u> X-ray	Pain present in the forearm (radius and ulna) suggestive of a fractured forearm which may include deformity, and/or swelling in affected area, impaired range of motion and bony tenderness	Any of the above listed contraindications	
<u>Hand and/or Finger</u> X-ray	Pain suggestive of a fractured hand or finger which may include obvious displacement/deformity of metacarpal bones, metacarpophalangeal (MCP) joints and phalanges	Any of the above listed contraindications	
<u>Hip and Pelvis</u> X-ray	Pain suggestive of a fractured hip which may include the inability to weight bear, the affected leg shortened or externally rotated <u>DO NOT</u> apply internal/external rotation, flexion and adduction of affected limb during examination	Any of the above listed contraindications	Patient should be placed on a stretcher
<u>Humerus</u> X-ray	Pain suggestive of a fractured humerus which may include deformity, and/or swelling in affected area, impaired range of motion and bony tenderness	Any of the above listed contraindications	
<u>Knee</u> X-ray as indicated by examination according to the Ottawa Knee Rules (Appendix D)	Pain suggestive of fractured knee which may include deformity, and/or swelling in affected area, impaired range of motion and bony tenderness	Any of the above listed contraindications	Patient should not ambulate on affected limb



Orthopaedic X-ray(s) (Continued)

Order:	Indications:	Contraindications:	Notes:
<u>Tibia/fibula</u> X-ray	Pain suggestive of a fractured tibia/fibula which may include deformity, and/or swelling in affected area, impaired range of motion and bony tenderness	Any of the above listed contraindications	Patient should not ambulate on affected limb
<u>Wrist</u> X-ray	Pain present over the distal radius and ulna and/or carpal bones suggestive of a fractured wrist which may include deformity, and/or swelling in affected area, impaired range of motion and bony tenderness	Any of the above listed contraindications	
<u>ADD scaphoid views to wrist x-ray</u>	If tenderness is elicited over the anatomical “snuff box” or over the scaphoid tubercle	Any of the above listed contraindications	

Renal Colic- Adults

Order:	Indications:	Contraindications:	Notes:
<ol style="list-style-type: none"> 1. NPO 2. Urine R+M 3. Ketorolac 10 mg PO once OR Ketorolac 15 mg IM once OR Ketorolac 15 mg IV once 	<p>Adult patients who present with symptoms indicative of renal colic and who are exhibiting significant distress</p> <p>Intact gag reflex for PO medications</p>	<p>Pregnant patient</p> <p>Decreased level of consciousness</p> <p>Ketorolac: Recent ketorolac administration in the past 6 hours OR more than 3 doses in the past 24 hours</p>	
<ol style="list-style-type: none"> 4. Ondansetron 8 mg PO once (PO includes ODT and soluble film) OR Ondansetron 4 mg IV once 	Nausea and/or vomiting	Allergic manifestations precipitated by ASA or other non-steroidal anti-inflammatory agents	
<ol style="list-style-type: none"> 5. Initiate IV 0.9% sodium chloride at 30 mL/hr OR saline lock 	IV is required in the professional judgement of the authorized HCP	History of GI distress/bleed, peptic ulcer disease, a history of renal disease other than renal colic, liver disease or congestive heart failure	



Seizure- Adults

Order:	Indications:	Contraindications:	Notes:
1. Capillary Blood Glucose	Patients with an active tonic-clonic seizure		Ensure patient has a patent airway, adequate respirations and monitor for aspiration Notify RRT if airway support required
2. Administer oxygen via nasal prongs or mask.	SpO2 less than or equal to 92%		
3. Continuous cardiac and SpO2 monitoring	Required in the professional judgement of the authorized HCP		
4. Initiate IV 0.9% sodium chloride at 30 mL/hr OR saline lock	IV is required in the professional judgement of the authorized HCP		

Seizure- Paediatric

Order:	Indications:	Contraindications:	Notes:
1. Capillary Blood Glucose	Paediatric patients with an active tonic-clonic seizure		Actual weight OR Estimate patient's weight based on Broselow tape measurement Ensure patient has a patent airway, adequate respirations and monitor for aspiration Notify RRT if airway support required
2. Continuous cardiac and SpO2 monitoring			
3. Administer oxygen via nasal prongs or mask	SpO2 less than or equal to 94%		
4. Initiate saline lock	IV is required in the professional judgement of the authorized HCP		



Sepsis- Adults

Order:	Indications:	Contraindications:	Notes:
<ol style="list-style-type: none"> CBC, Na, K, Cl, CO₂, Urea, Creatinine, Random Glucose, Ca, Mg, AST, ALT, ALP, Bili, Lactic Acid, Blood C+S (2 sets), Phosphate, Albumin, Lipase, Troponin, INR/PTT, Venous Blood Gas Urine or Serum β HCG if female of child bearing years (depending on LH site) Urine C+S and Urine R+ M Continuous cardiac monitoring 12 Lead ECG (to be reviewed by Physician as per ED Practice Standards) 	<p>Documented, or strong clinical suspicion for sepsis</p> <p>Symptoms including but not limited to two or more of the following:</p> <ul style="list-style-type: none"> Temperature of greater than 38°C or less than 36°C HR of greater than 90 beats/min RR of greater than 20/min SBP of less than or equal to 90 mmHg or a mean of less than 65 mmHg Chills/rigors or headache with neck stiffness Alterations in patient behaviour (especially in elderly) 		<p>NOTIFY Physician STAT if systolic BP less than 90 mmHg</p>
6. Administer oxygen via nasal prongs or mask.	SpO ₂ less than or equal to 92% or SpO ₂ less than or equal to 88% in COPD patients		
7. Initiate IV Ringer's Lactate at 30 mL/hr OR saline lock	IV is required in the professional judgement of the authorized HCP		
8. Ringer's Lactate 500 mL fluid bolus over 15 minutes	Patient is hypotensive with systolic BP less than 90 mmHg	If patient has history of congestive heart failure, or has signs and symptoms of congestive heart failure	

Serum Coagulopathy

Order:	Indications:	Contraindications:	Notes:
INR/PTT	If on anticoagulant, symptoms of stroke/TIA and/or potential hemodynamic instability		



Substance Exposure/Abuse

Order:	Indications:	Contraindications:	Notes:
<ol style="list-style-type: none"> 1. Consult Ontario Poison Centre 2. CBC, Na, K, Cl, CO₂, Urea, Creatinine, Glucose, AST, ALP, Bili, Albumin, ALT, Lipase, INR/PTT, Venous Blood Gas, Osmolality, Drug Screen (ASA, Blood Alcohol Level (ETOH), Acetaminophen) 3. Continuous cardiac monitoring 4. 12 Lead ECG (to be reviewed by Physician as per ED Practice Standards) 5. Capillary Blood Glucose 	<p>Patient with actual or suspected drug overdose/ingestion with one or more of the following:</p> <ul style="list-style-type: none"> • Reported ingestion • Alterations in mood, behaviour and/or motor function suggestive of intoxication • Alteration in level of consciousness (LOC) 		<p>NOTIFY Physician STAT if patient has: decreased LOC, diaphoretic, cyanotic, initial tachycardia, difficulty speaking, agitated</p>
<ol style="list-style-type: none"> 6. Administer oxygen via nasal prongs or mask 	<p>SpO₂ less than or equal to 92% or SpO₂ less than or equal to 88% in COPD patients</p>		
<ol style="list-style-type: none"> 7. Initiate IV 0.9% sodium chloride at 30 mL/hr OR saline lock 	<p>IV is required in the professional judgement of the authorized RHCP/PA</p>		

Sucrose for Infant Pain

Order:	Indications:	Contraindications:	Notes:
<p>2 mL 24% oral sucrose solution once placed on the tongue or buccal surface or dip pacifier in sucrose solution and allow infant to suck</p>	<p>For infants 37 weeks gestational age up to 3 months of life; 2 minutes prior to painful procedure (e.g. blood sampling, IV, immunization, etc.)</p>	<p>Decreased level of consciousness Critically ill NPO Previous hypoglycemia or receiving insulin infusions History of:</p> <ul style="list-style-type: none"> • asphyxia or difficulty swallowing • necrotizing enterocolitis (NEC) 	



Topical Anesthetic

Order:	Indications:	Contraindications:	Notes:
Apply 3 - 10 mL of LET (lidocaine/ epinephrine/ tetracaine) solution on a cotton ball and apply to non-intact skin for 25 - 30 minutes	For use on simple lacerations requiring suturing	Lacerations to mucous membranes or peripheral extremities (i.e. digits, nose, ears, penis) or sign of injury to underlying structures Hypersensitivity to lidocaine, epinephrine, tetracaine or metabisulfite	

Urine Sampling

Order:	Indications:	Contraindications:	Notes:
Urine R+M	Specific complaints of flank pain, abdominal pain, pelvic pain or discomfort, genitourinary symptoms and vaginal bleeding		
Urine C+S	Paediatric patients 0-17 with symptoms of urinary tract infection (UTI)		
Urine β HCG (depending on LH site)	Female of child bearing years (9 – 55 years)	Patients obviously pregnant or in confirmed third trimester Previous hysterectomy	



Urinary Catheterization- Adults

Order:	Indications:	Contraindications:	Notes:
<ol style="list-style-type: none"> 1. Insert a 14 - 18 French (Fr) Urinary Catheter (or consider a 20 - 22 Fr three way Urinary Catheter for suspected blood clot retention) 2. Use Lidocaine 2% (200 mg/10 mL) jelly for male patients approximately 5 minutes prior to insertion 3. Monitor output q4h and PRN 	<p>Suspected urinary retention</p> <p>Bladder scan indicates greater than 400 mL post void residual urine</p> <p>Unconscious or multiple trauma (but no blood in urethral meatus or signs of GU trauma)</p>	<p>Resistance if encountered</p> <p>Urethral trauma or known structural abnormality</p>	

Vaginal Bleeding- Adults

Order:	Indications:	Contraindications:	Notes:
<ol style="list-style-type: none"> 1. CBC, Na, K, Cl, CO₂, Urea, Creatinine, Random Glucose, Type and Screen, INR, PTT, Urine or Serum β HCG (depending on LH site) 2. Urine R+M 	<p>Adults with vaginal bleeding</p>		
<ol style="list-style-type: none"> 3. Administer oxygen via nasal prongs or mask 	<p>SpO₂ less than or equal to 92% or SpO₂ less than or equal to 88% in COPD patients</p>		
<ol style="list-style-type: none"> 4. Initiate IV 0.9% sodium chloride at 30 mL/hr OR saline lock 	<p>IV is required in the professional judgement of the authorized HCP</p>		



Appendix B: PRAM Scoring Table

PRAM scoring table

Criteria	Description	Score	
O ₂ saturation	≥ 95%	0	
	92-94%	1	
	< 92%	2	
Suprasternal retraction	Absent	0	
	Present	2	
Scalene muscle contraction	Absent	0	
	Present	2	
Air entry *	Normal	0	
	↓ at the base	1	
	↓ at the apex and the base	2	
	Minimal or absent	3	
Wheezing †	Absent	0	
	Expiratory only	1	
	Inspiratory (± expiratory)	2	
	Audible without stethoscope or silent chest (minimal or no air entry)	3	
PRAM score : (max. 12)			
Score	0-3	4-7	8-12
Severity	Mild	Moderate	Severe

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* In case of asymmetry, the most severely affected (apex-base) lung field (right or left, anterior or posterior) will determine the rating of the criterion.

† In case of asymmetry, the two most severely affected auscultation zones, irrespectively of their location (RUL, RML, RLL, LUL, LLL), will determine the rating of the criterion.

This tool is available on the following website : www.childasthmatools.umontreal.ca

Related references:

- Chalut DS et al. The Preschool Respiratory Assessment Measure (PRAM): A responsive index of acute asthma severity. J Pediatr 2000;137(6):762-8.
- Ducharme FM et al. The Pediatric Respiratory Assessment Measure: a valid clinical score for assessing acute asthma severity from toddlers to teenagers. J Pediatr 2008;152(4):476-80, 480.e1.

<https://www.chusj.org/CORPO/files/32/32ba0b8c-4894-4d8e-87ca-a46e4c0924a5.pdf>



Appendix C: Ottawa Ankle Rule

An ankle X-Ray series is only required if there is any pain in the malleolar zone and...

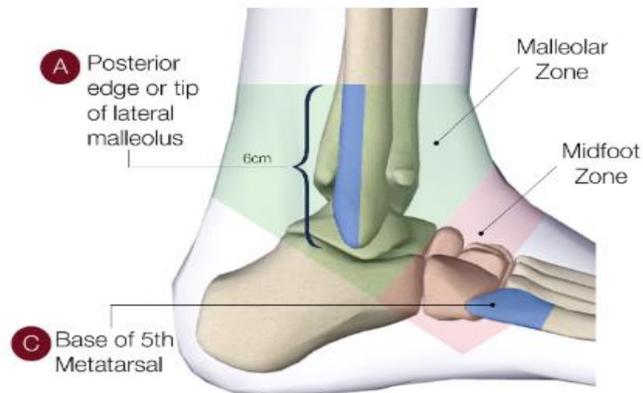
Bone tenderness at the posterior edge or tip of the lateral malleolus (A)

OR

Bone tenderness at the posterior edge or tip of the medial malleolus (B)

OR

An inability to bear weight both immediately and in the emergency department for four steps



Lateral View

A foot X-Ray series is only required if there is any pain the midfoot zone and...

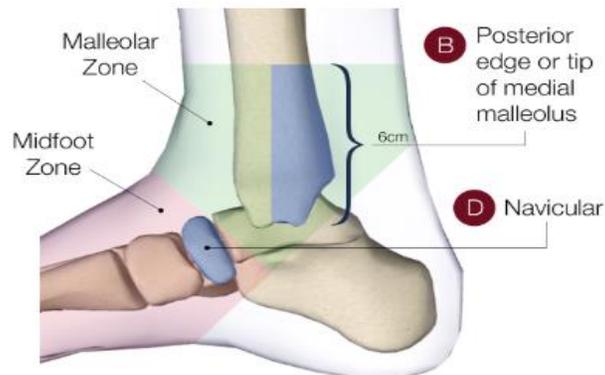
Bone tenderness at the base of the fifth metatarsal (C)

OR

Bone tenderness at the navicular (D)

OR

And inability to bear weight both immediately and in the emergency department for four steps



Medial View

http://www.theottawarules.ca/ankle_rules



Appendix D: Ottawa Knee Rule

A knee X-Ray series is only required for knee injury patients with any of these findings:

Age 55 or older

OR

Isolated tenderness of the patella

No bone tenderness of knee other than patella

OR

Tenderness of the head of the fibula

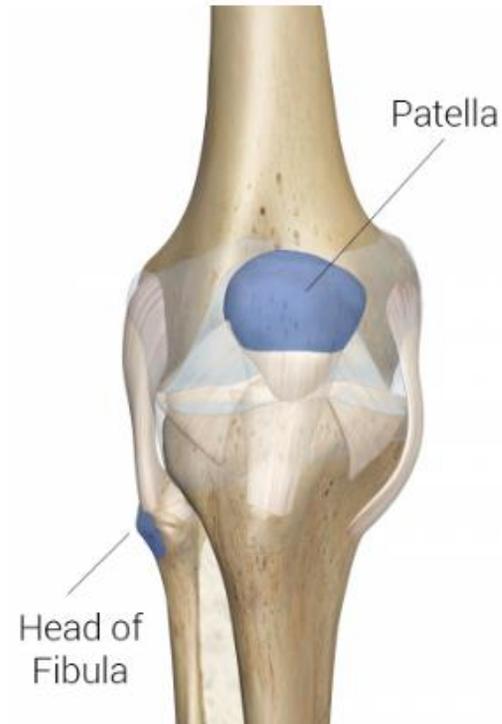
OR

Cannot flex to 90 degrees

OR

Unable to bear weight both immediately and in the emergency room department for 4 steps

Unable to transfer weight twice onto each lower limb regardless of limping



http://www.theottawarules.ca/knee_rules