 Lakeridge Health	Emergency Department – Medical Directive	
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	Approved by: Program Council,	
	Cross Reference to: Emergency Situations Medical Directive	
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Authorizing Prescribers

All Lakeridge Health (LH) Emergency Department (ED) Physicians

Authorized to Whom

All Emergency Nurses and Registered Respiratory Therapists (RRT) 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 complete the Emergency Department Medical Directive online learning module every 2 years.

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

Co-Implementers

- Medical Radiation Technologist (Radiography)
- Phlebotomist/Med Lab Assistant

Patient Description/Population

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

Order and/or Procedure

The procedures are not presented in sequential order; any one of or combination of the procedures in the [Order Table Form](#) may be selected by the Nurse and/or RRT. The Nurse and/or RRT will review the patient's diagnosis and medical history.

For any tests performed under authorization of this medical directive, results **must** be reviewed by any available emergency 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.

As per the *Emergency Situations Medical Directive*, all Regulated Healthcare Providers (RHCPs) at Lakeridge Health are authorized by the Regulated Health Professions Act (RHPA) (1991) and discipline-specific acts to perform peripheral venous access device (PVAD) insertion, and/or access of an existing non-hemodialysis central venous access device (CVAD), and/or capillary blood glucose sampling, and/or oxygen administration and/or administration of naloxone. Please refer to this medical directive for further details.

To access order and/or procedure click on **link** below:

Adult Specific Medical Directives

[Acutely Presenting Older Adult](#)

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

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[Seizure- Adults](#)

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Paediatric Specific Medical Directives

[Analgesia for Pain- Paediatrics](#)

[Asthma Management- Paediatrics](#)

[Fever Management- Paediatrics](#)

[Oral Rehydration Therapy \(ORT\)- Paediatrics](#)

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General Medical Directives

[Backboard Removal](#)

[Capillary Blood Glucose](#)

[Electrical Injury](#)

[Eye Injury/Discomfort](#)

[Febrile Neutropenia- Early Detection for Cancer Patients](#)

[Orthopaedic X-Rays](#)

[Serum Coagulopathy](#)

[Topical Anaesthetic](#)

[Urine Sampling](#)

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:

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

Consent

The Nurse/RRT 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 Nurse/RRT may administer treatment without consent if, in their 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 RHCP implementing this medical directive must document in the comments of the order the following:

- The procedure performed on the patient
- The name of the medical directive
- The name of the implementer
- The order mode “per medical Directive” must be selected and the RHCP must enter their name as the ordering provider. The authorizing provider selected is the patient’s MRP.
- If documenting during downtime, document in the order section of the chart the following:
 - The procedure performed on the patient
 - The name of this medical directive
 - The name of the implementer
 - Legible signature of implementer including credentials
 - Date and time

Review/Evaluation Process

This directive will be reviewed by the Emergency Department Program Council every 2 years.

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

Order Table Form

Adult Specific Medical Directives

Acutely Presenting Older Adult

Order:	Indications:	Contraindications:	Notes:
<p>1. CBC, Na, K, Cl, CO₂, Urea, Creatinine, Glucose, Calcium, Magnesium, Phosphorus</p>	<p>Patient is 65 years or older presenting with any of the following complaints:</p> <ul style="list-style-type: none"> • General weakness • Feeling unwell • Difficulty ambulating • Recent Falls • Confusion (Deviation from baseline GCS) 	<p>Meets indications for another existing medical directive (ie. Sepsis, Abdominal Pain, etc.)</p>	
<p>2. INR</p>	<p>Patient is on anticoagulants or unknown if on anticoagulants</p>		
<p>3. GEM Referral (GEM Nurse/ Nurse Practitioner)</p>	<p>If the patient meets the following criteria:</p> <ul style="list-style-type: none"> • Cognitive decline affecting hygiene, managing medication, banking, driving and/or meal preparation • Complex medication regimen/polypharmacy • Recent falls or mobility changes • Recent physical or functional decline • Responsive behaviours (agitation, wandering, paranoia, hallucinations, inappropriate behaviours) • Caregiver(s) having difficulty coping 		

Altered Level of Consciousness (ALOC) Management - Adult

Order:	Indications:	Contraindications	Notes:
1. CBC, Na, K, Cl, CO ₂ , Urea, Creatinine, Glucose, AST, ALP, Bili, Albumin, ALT, Lipase, INR/PTT, Venous Blood Gas, Osmolality, ASA, Blood Alcohol Level (ETOH), Acetaminophen 2. Continuous cardiac monitoring 3. 12 Lead ECG (to be reviewed by Physician as per ED Practice Standards) 4. Capillary Blood Glucose	Patients presenting with ALOC OR with actual/suspected drug overdose/ ingestion with one or more of the following symptoms: <ul style="list-style-type: none"> • Bizarre Behaviour • Reported ingestion • Alterations in mood, behaviour and/or motor function • Difficult to arouse • Confusion (Deviation from baseline GCS) • Hallucinations/delusions 		NOTIFY Physician STAT if patient has: decreased LOC, diaphoretic, cyanotic, initial tachycardia, difficulty speaking, agitated
5. Consult Poison Control	For Actual or Suspected drug overdose/ ingestion		
6. Administer Naloxone 0.4 mg- 2mg per dose IV, IO, IM, or intranasal route, repeating every 2–3 minutes as needed, up to a total cumulative dose of 10 mg.	Patients who are 16 years of age or older with actual or suspected opioid overdose AND one or more of the following: <ul style="list-style-type: none"> • Respiratory rate less than 10 breaths per minute • SpO₂ less than 90% on room air • Signs of respiratory distress or depression 	Patients less than 16 years old Allergy to Naloxone	Goal of naloxone administration is adequate ventilation NOT normal level of consciousness.

Analgesia for (Mild to Moderate) Pain- Adults

Order:	Indications:	Contraindications:	Notes:
1. Acetaminophen 650 mg PO once with a sip of water OR 2. Ibuprofen 400 mg PO once with a sip of water OR	Patients with mild to moderate pain (less than 8 on the 0 - 10 pain scale, or as defined in Pain Patient Care Standard)	Altered level of consciousness (Deviation from baseline GCS), difficulty swallowing PO medication Acetaminophen: Recent acetaminophen administration in the last 4 hours OR more than 3 doses in the past 24 hours History of cirrhosis, chronic liver disease, or alcoholism Tylenol intolerance or allergy	
3. Ketorolac 15 mg IM once	For patients who cannot tolerate PO meds	Ibuprofen OR Ketorolac: Recent Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) 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 If the patient is on any Anticoagulants, Warfarin, or therapeutic Heparin History of GI distress/bleed, peptic ulcer disease, a history of renal disease other than renal colic, liver disease or congestive heart failure	

Asthma/COPD Management - Adults

Order:	Indications:	Contraindications:	Notes:
1. Salbutamol (Ventolin) 100 mcg/puff by metered dose inhaler (MDI) and spacer 4 - 8 puffs q 20 min x 3 doses 2. Ipratropium (Atrovent) 20 mcg/puff by MDI and spacer 4 - 8 puffs q 20 mins x 3 doses	Patients presenting with SOB AND a history of Asthma or COPD with one or more of the following: <ul style="list-style-type: none"> • Cough • Presence of respiratory distress, wheeze, tightness or decreased breath sounds during chest auscultation • Severe respiratory distress 	No previous history of Asthma or COPD Allergy to Salbutamol or Ipratropium	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

Cardiovascular - Adult

Order:	Indications:	Contraindications:	Notes:
1. 12 Lead ECG STAT	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 heartbeat • Tachycardia/Bradycardia 		12 Lead ECG to be shown to MD within 10 minutes of completion
2. Continuous Cardiac Monitoring	Required in the professional judgement of the authorized HCP		
3. Chest X-ray (PA and Lateral) OR 4. Portable Chest X-ray for hemodynamically unstable patients	Patients presenting with symptoms suggestive of Acute Coronary Syndrome such as pain, pressure, tightness, or discomfort in the chest, shoulders, arms, neck, back, upper abdomen, or jaw, and shortness of breath	Known or suspected pregnancy.	
5. CBC, Na, K, Cl, CO ₂ , Urea, Creatinine, Glucose, hs Troponin, INR, PTT	Patients with acute onset chest pain		
6. Type and Screen	ECG elevation suggestive of STEMI		
7. Urine or Serum β HCG	People of birthing age with internal reproductive organs (9 – 55 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 hours ASA allergy	
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Fever Management- Adults

Order:	Indications:	Contraindications:	Notes:
1. Acetaminophen 650 mg PO/PR once OR 2. Ibuprofen 400mg PO once	Patients with temperature greater than or equal to 38°C	Acetaminophen and Ibuprofen contraindications as listed in the Analgesia for (Mild to Moderate) Pain- Adults directive	Repeat and document temperature one hour after administration of medication

Flank Pain - Adults

Order:	Indications:	Contraindications:	Notes:
1. NPO 2. Urine Screen 3. Ketorolac 10 mg PO once OR Ketorolac 15 mg IM/IV once	Adult patients who present with symptoms indicative of renal colic and who are exhibiting significant distress Intact gag reflex for PO medications	Ketorolac contraindications as listed in the Analgesia for (Mild to Moderate) Pain- Adults directive	
4. Ondansetron 8 mg PO (ODT/ soluble film) once OR Ondansetron 4 mg IV once	Nausea and/or vomiting	Presenting or history of arrhythmia, cardiac defect as it may cause QT prolongation. Ondansetron dose given in past 8 hours	

Gastrointestinal - Adults

Order:	Indications:	Contraindications:	Notes:
1. CBC, Na, K, Cl, CO ₂ , Urea, Creatinine, Glucose, AST, ALP, Total Bili, Albumin, ALT, Lipase, INR, Urinalysis	Patients with acute onset abdominal pain		:

2. NPO			
3. ECG 4. Add hs Troponin	Pain above umbilicus		
5. Urine or Serum β HCG	People of birthing age with internal reproductive organs (9 – 55 years)		
6. Lactic Acid	All patients 50 years of age and older		
7. Type and Screen	Suspected hemorrhage		
8. Urine Culture	Patient has signs and symptoms of a urinary tract infection		
9. Ondansetron 8 mg PO (ODT/soluble film) once OR Ondansetron 4 mg IV once	Nausea and vomiting	Presenting or history of arrhythmia, cardiac defect as it may cause QT prolongation; Ondansetron dose given in past 8 hours	

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 of 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.)	

Seizure- Adults

Order:	Indications:	Contraindications:	Notes:
1. Capillary Blood Glucose 2. CBC, Electrolytes, Extended Electrolytes, Creatinine, Venous Blood Gases, and Lactic Acid	Patients with an active tonic-clonic seizure or who are in a post ictal phase		Ensure patient has a patent airway, adequate respirations and monitor for aspiration Notify RRT if airway support required
3. Continuous cardiac and SpO2 monitoring	Required in the professional judgement of the authorized HCP		

Sepsis- Adults

Order:	Indications:	Contraindications:	Notes:
1. CBC, Na, K, Cl, CO ₂ , Urea, Creatinine, Glucose, Ca, Mg, AST, ALT, ALP, Total Bili, Lactic Acid, CRP, Blood Culture (2 sets), Phosphate, Albumin, Lipase, Hs Troponin, INR/PTT, Venous Blood Gas 2. Urine or Serum β HCG for People of birthing age with internal reproductive organs (9 – 55 years) 3. Urine Culture and Urinalysis 4. 12 Lead ECG (to be reviewed by Physician as per ED Practice Standards)	Documented, or strong clinical suspicion for sepsis Symptoms including but not limited to two or more of the following: <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) 		NOTIFY Physician STAT if systolic BP less than 90 mmHg
5. Chest X-ray (PA and Lateral) OR 6. Portable Chest X-ray for hemodynamically unstable patients	Patients presenting with symptoms suggestive of Acute Coronary Syndrome such as pain, pressure, tightness, or discomfort in the chest, shoulders, arms, neck, back, upper abdomen, or jaw, and shortness of breath	Known or suspected pregnancy.	
7. Continuous cardiac monitoring	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	
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Sickle Cell Acute Vaso-Occlusive Episode (VOE) - Adults

Order:	Indications:	Contraindications:	Notes:
1. CBC, Reticulocyte count, Na, K, Cl, CO ₂ , Creatinine, Glucose, ALP, Total Bili, Direct Bili, ALT, Lipase, Lactic Acid, Dehydrogenase, LDH, Urinalysis 2. Type and Screen Special Requirements: Sickle Cell – Prophylactic Antigen Matching	Patients in a Sickle Cell Crisis		NOTIFY Physician and the Unit Coordinator/ Charge Nurse if patient is confirmed with Sickle Cell Disease (SCD) to facilitate a monitored bed, pain medication within 30 minutes of being triaged and CTAS 2 as per Sickle Cell Disease Standard of Work (Appendix A)
3. Urine or Serum β HCG	People of birthing age with internal reproductive organs (9 – 55 years)		
4. Urine Culture 5. Blood Culture (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	If temperature greater than 38.5°C		
6. 12 Lead ECG STAT (to be reviewed by Physician as per ED Practice Standards) 7. Add bloodwork: HS Troponin 8. Continuous Cardiac Monitoring	Chest Pain/ Discomfort for possible Acute Chest Syndrome Required in the professional judgement of the authorized HCP		12 Lead ECG to be shown to MD within 10 minutes of completion.

<p>9. Chest X-ray (PA and Lateral) OR Portable Chest X-ray for hemodynamically unstable patients Reason: Sickle Cell Disease – rule out infection or Acute Chest Syndrome</p>	<p>If temperature greater than 38.5°C, SpO2 less than 95%, respiratory symptoms, chest or thoracic pain.</p>	<p>Known or suspected pregnancy.</p>	
<p>10. Acetaminophen 975 mg PO once OR 11. Ibuprofen 400 mg PO once OR 12. Ketorolac 15 mg IM once</p>	<p>Adjunct non-opioid pharmacologic pain management for VOCs For patients who cannot tolerate PO meds</p>	<p>Acetaminophen and Ibuprofen contraindications as listed in the Analgesia for (Mild to Moderate) Pain- Adults directive</p>	
<p>13. Ondansetron 8 mg PO (ODT/Soluble film) once OR Ondansetron 4 mg IV once</p>	<p>Opioid Induced Nausea and vomiting</p>	<p>Presenting or history of arrhythmia, cardiac defect; Ondansetron dose given in past 8 hours; ondansetron allergy</p>	

Urinary Catheterization- Adults

Order:	Indications:	Contraindications:	Notes:
<p>1. Bladder Scan Patient 2. Insert a 14 - 18 French (Fr) Urinary Catheter (or consider a 20 - 22 Fr three-way Urinary Catheter for suspected blood clot retention) 3. Use Lidocaine 2% (200 mg/10 mL) jelly for approximately 5 minutes prior to insertion 4. Monitor output q4h and PRN</p>	<p>Suspected urinary retention</p> <ul style="list-style-type: none"> • Bladder scan indicates greater than 400mL post void residual • Critically ill patient requiring accurate hourly urine output monitoring • Protection of Stage III or IV sacral/perineal wound(s) in patient with urinary incontinence • Gross hematuria • Strict immobilization required for treatment of trauma, hip fracture or surgery 	<p>Resistance if encountered Urethral trauma or known structural abnormality Allergy to Lidocaine</p>	

Vaginal Bleeding- Adults

Order:	Indications:	Contraindications:	Notes:
1. CBC, Na, K, Cl, CO ₂ , Urea, Creatinine, Glucose, Type and Screen, INR, PTT, 2. Urine Screen	Adults with vaginal bleeding		
3. Serum β HCG	People of birthing age with internal reproductive organs (9 – 55 years)	Patients obviously pregnant or in confirmed third trimester Previous hysterectomy	

Paediatric Specific Medical Directives

Analgesia for Pain- Paediatrics

Order:	Indications:	Contraindications:	Notes:
1. Acetaminophen 15 mg/kg PO/PR once (maximum dose 650 mg) OR 2. 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	Acetaminophen and Ibuprofen contraindications as listed in the Analgesia for (Mild to Moderate) Pain- Adults directive	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:
1. Paediatric Respiratory Assessment Measure (PRAM) Score (Appendix B) 2. Salbutamol (Ventolin) 100 mcg/puff by metered dose inhaler (MDI) and spacer q 20 min x 3 based on the following dosing: <ul style="list-style-type: none"> • Less than 20 kg: 4 puffs (400 mcg) q20 minutes x 3 doses • Greater than or equal to 20 kg: 8 puffs (800 mcg) q 20 minutes x 3 doses 3. Ipratropium (Atrovent) 20 mcg/puff by MDI and spacer q 20 min x 3 based on the following dosing: <ul style="list-style-type: none"> • Less than 20 kg: 4 puffs (80 mcg) q20 minutes x 3 doses • Greater than or equal to 20 kg: 8 puffs (160 mcg) q 20 minutes x 3 doses 	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	Patient presents with history of acute or chronic condition other than asthma, including cardiac conditions. Patient is unable to cooperate with the procedure	NOTIFY Physician / RRT STAT if PRAM score is 4 or greater. A PRAM score >12 indicates impending respiratory failure.

<p>4. Dexamethasone 0.6 mg/kg PO once (maximum 20 mg)</p>	<p>Paediatric patient (age 1-17) with moderate or severe asthma (PRAM 5-12) OR Symptoms of croup such as stridor, barking cough, mild to moderate respiratory distress.</p>	<p>Patient cannot tolerate PO</p>	
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Fever Management- Paediatrics

Order:	Indications:	Contraindications:	Notes:
<p>1. Acetaminophen 15 mg/kg PO/PR once (maximum dose 650mg) OR 2. 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>Acetaminophen and Ibuprofen contraindications as listed in the Analgesia for (Mild to Moderate) Pain- Adults directive Rectal temperature is contraindicated for pediatric cancer patients (i.e. Febrile Neutropenia).</p>	<p>NOTIFY Physician STAT for child less than 3 months of age presenting with temperature greater than or equal to 38°C Reassess temperature 30 minutes after administration of medication Checking Temperature: Rectal: <2 years of age Oral: >2 years of age Axillary: If oral and rectal are contraindicated. Tympanic: Screening Only Temporal: Screening Only</p>

Oral Rehydration Therapy (ORT) - Paediatrics

Order:	Indications:	Contraindications:	Notes:
<p>1. Ondansetron PO/ODT once</p> <p>Dosing:</p> <ul style="list-style-type: none"> • <8kg: Consult MD • 8 kg to <15 kg = 2 mg • 15 kg to <30 kg = 4 mg • ≥30 kg = 8 mg 	<p>Nausea and/or Vomiting</p>	<p>Presenting or history of arrhythmia, cardiac defect, liver transplant, liver dysfunction, metabolic disorders (e.g. diabetes, Phenylketonuria). Medications which prolong QT interval e.g. macrolides/PPIs etc. if so, may need baseline ECG first</p>	<p>Measure weight (kg) of child</p> <p>Adverse reactions: CV: Arrhythmias. CNS: Light-headedness, blurred vision, dizziness, drowsiness, fatigue,</p>

		Ondansetron dose given in past 8 hours Allergic or Adverse Reactions to Ondansetron	fever, headache, malaise. GI & GU: Constipation, diarrhea.
2. Provide 5ml of Pedialyte or other oral rehydration fluid (ex. ½ diluted apple juice) via syringe PO q5 mins x 60 min	Paediatric patient greater than or equal to 6 months of age, presents with c/o vomiting and/or diarrhea (obtain history of oral intake and stools) AND have signs of mild to moderate dehydration (low urine output, increased thirst, dry mucus membranes, elevated heart rate, Cap refill >2 sec, cool to touch skin, decreased skin turgor)	Patient less than 6 months of age. Patient appears: <ul style="list-style-type: none"> • Lethargic, • Signs of altered perfusion, • Bilious or bloody vomiting, • Child has vomiting alone (no diarrhea) with signs associated with neurologic or toxicological etiology • Bulging fontanelle • Bloody or black stool Patient with severe abdominal pain or distension	NOTIFY Physician if ORT is started but patient is unable to tolerate and/or increase their oral intake Nurse to Reassess patient at 60 minutes post initiation. Document emesis and urine output/wet diapers if present. NOTIFY Physician STAT if deterioration in condition is observed

Seizure- Paediatric

Order:	Indications:	Contraindications:	Notes:
1. Capillary Blood Glucose 2. Continuous cardiac and SpO2 monitoring	Paediatric patients with an active tonic-clonic seizure or who are in a post ictal phase		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

Sucrose for Infant Pain

Order:	Indications:	Contraindications:	Notes:
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	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.)	Altered level of consciousness (Deviation from baseline GCS) Critically ill NPO Previous hypoglycemia or receiving insulin infusions History of: <ul style="list-style-type: none"> • asphyxia or difficulty swallowing • necrotizing enterocolitis (NEC) 	

General Medical Directives

Backboard Removal

Order:	Indications:	Contraindications:	Notes:
<p>Remove backboard</p>	<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 <p>If patients are in a Scoop Stretcher, maintain C-spine alignment while splitting the stretcher into two halves with assistance from other healthcare professionals.</p>

Capillary Blood Glucose

Order:	Indications:	Contraindications:	Notes:
1. STAT capillary blood glucose	<p>Assessment of a patient from all ages (greater than 35 weeks old) presenting with symptoms of hypoglycemia OR hyperglycemia AND one or more of the following symptoms:</p> <p>Hyperventilation, Abdominal pain, Polyuria, Polydipsia, Weight loss, Diaphoresis, Shaking/Tremors, Confusion/Agitation, Behavioural Changes, Lethargy, Fatigue, Recent/Active Seizure, Suspicion of Alcohol Ingestion</p>	Patients less than 35 weeks of age.	<p>Notify Physician STAT if patient has hyperglycemia or hypoglycemia with hemodynamic instability and/or altered level of consciousness. Please follow the Hypoglycemia protocol (Regional) if Blood Glucose is less than 4mmol/L for Adult patients 18 years of age or older.</p> <p>Notify Physician STAT if a <i>pediatric</i> patient less than 18 years of age has hypoglycemia with hemodynamic instability and/or altered level of consciousness.</p> <p>Sick Kids' Normal Glucose Levels – Fasting Values (Appendix C)</p>
<p>2. CBC, Na, K, Cl, CO₂, Urea, Creatinine, Glucose, Venous Blood Gas, Serum Osmolality, Serum Ketones, AST, ALT, Ca, Mg, Phosphorus</p> <p>3. Urinalysis</p>	For Adult patients >18 years of age with Hyperglycemia AND one or more symptoms mentioned above.		

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:
1. Instill 1 drop of Proparacaine 0.5% ophthalmic solution or Tetracaine 0.5% ophthalmic solution 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	Eye pain caused by any of the following: foreign body/trauma/injury, chemical splash, thermal injury, corneal abrasion Patient must be able to cooperate in the performance of the procedure	Visible foreign body in eye Penetrating eye injury Signs and symptoms of a perforation or ruptured globe	For chemical exposure/injury: Consult Ontario Poison Centre and advise Physician of recommendations Do not initiate any orders that are contraindicated according to Poison Centre
3. Insert Morgan Lens	Required in the professional judgement of the authorized HCP		

Febrile Neutropenia- Early Detection in Cancer Patients

Order:	Indications:	Contraindications:	Notes:
1. CBC, Na, K, Cl, CO ₂ , Urea, Creatinine, Lactic Acid, Phosphate, ALT, ALP, Total Bili, Ca, Mg 2. Blood Culture (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. Urinalysis and Culture 4. CXR PA + Lateral Reason: Febrile Neutropenia	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		Patient to be prioritized for MD assessment for administration of empiric antibiotic therapy within one hour.

Orthopaedic X-ray(s) – For Triage Nurses Only

Order:	Indications:	Contraindications:	Notes:
1. NPO 2. Apply ice 3. Restrict movement to affected limb	Patients 6 years and older with a history of significant injury or trauma Patients must be conscious and alert	Under 6 years of age Open fracture (compromised skin integrity)	Check colour sensation and movement (CSM) and distal pulses on assessment and after application of any splints/immobilization
<u>Ankle and/or foot</u> as per Ottawa Ankle Rules (Appendix D)	Pain suggestive of fractured ankle or foot which may include deformity, and/or swelling in affected area, impaired range of motion and bony tenderness	Neurovascular compromise (CSM deficit) or diminished sensation due to a neurological deficit (e.g. CVA, altered LOC, etc.)	When possible, patient should not ambulate on affected limb
<u>Clavicle</u>	Pain suggestive of a fractured clavicle which may include deformity, and/or swelling in affected area, impaired range of motion and bony tenderness	Major trauma	
<u>Forearm (radius/ulna)</u>	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	Pregnant or suspected pregnant patient	
<u>Hand and/or Finger</u>	Pain suggestive of a fractured hand or finger which may include obvious displacement/deformity of metacarpal bones, metacarpophalangeal (MCP) joints and phalanges	Suspected intoxication or has distracting injuries and is unable to follow direction, maintain motor control, or is un-cooperative	
<u>Hip and Pelvis</u>	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	Head injuries or multiple painful injuries	
<u>Humerus</u>	Pain suggestive of a fractured humerus which may include deformity, and/or swelling in affected area, impaired range of motion and bony tenderness		
<u>Knee</u> as per Ottawa Knee Rules (Appendix E)	Pain suggestive of fractured knee which may include deformity, and/or swelling in affected area, impaired range of motion and bony tenderness		
<u>Tibia/fibula</u>	Pain suggestive of a fractured tibia/fibula which may include deformity, and/or swelling in affected area, impaired range of motion and bony tenderness		

Serum Coagulopathy

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

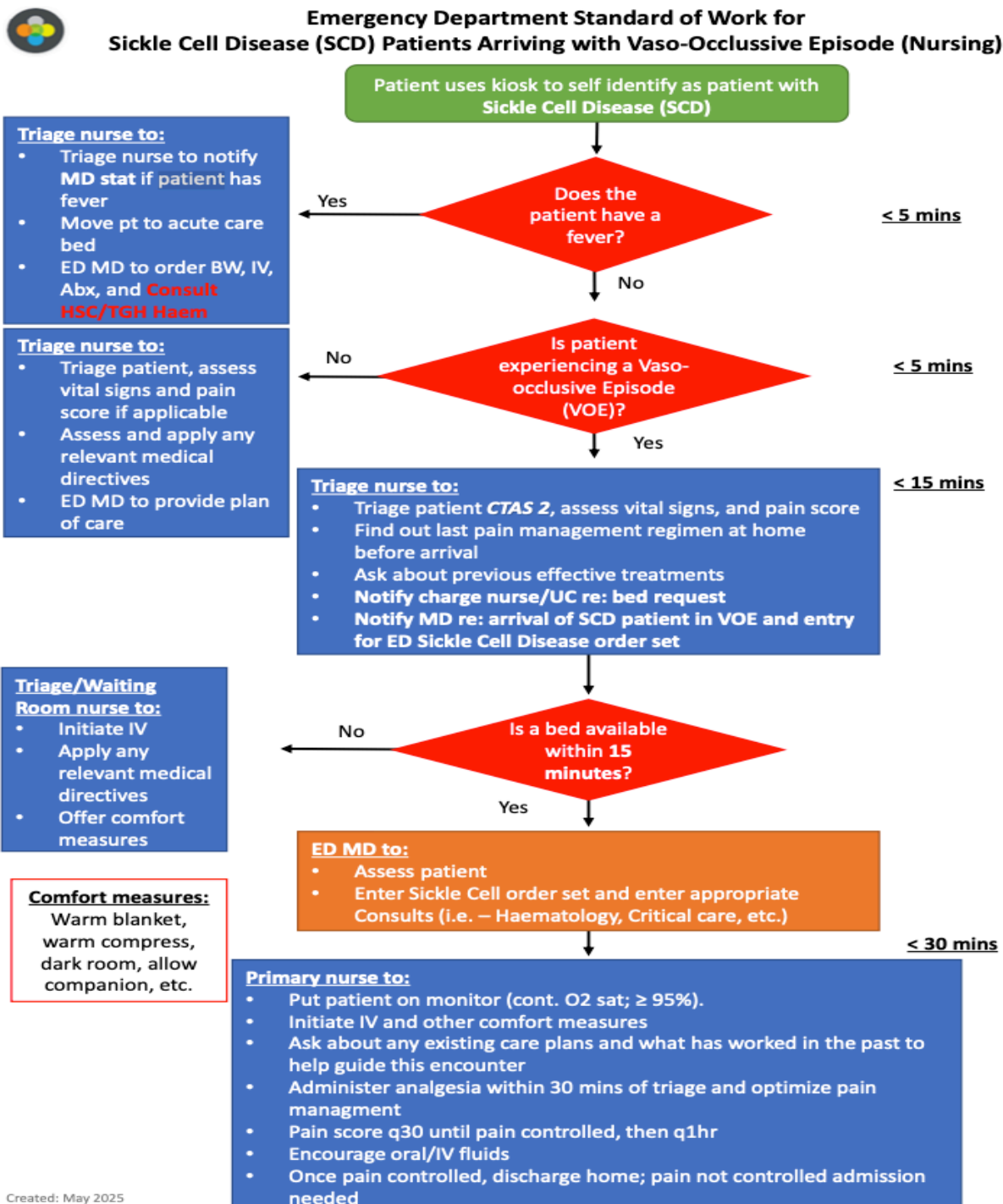
Topical Anesthetic

Order:	Indications:	Contraindications:	Notes:
1. Apply 3 - 10 mL of LET (lidocaine/ epinephrine/ tetracaine) solution on a cotton ball and apply to non-intact skin.	For patients greater than 6 months of age with 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 or allergy to lidocaine, epinephrine, tetracaine or metabisulfite	

Urine Sampling

Order:	Indications:	Contraindications:	Notes:
1. Urinalysis	Specific complaints of flank pain, abdominal pain, pelvic pain or discomfort, genitourinary symptoms and vaginal bleeding		
2. Urine Culture	Paediatric patients 0-17years of age presenting with-symptoms of urinary tract infection (UTI)	Paediatric patient who are not able to provide a midstream clean catch urine sample.	In and out catheterization must be ordered by MD.
3. Urine β HCG	People of birthing age with internal reproductive organs (9 – 55 years)	Patients obviously pregnant or in confirmed third trimester Previous hysterectomy	

Appendix A – Sickle Cell Disease (SCD) Vaso-Occlusive crisis (VOC) Standard of Work



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 – Sick Kids Normal Glucose Levels

Age	Normal Glucose Levels (Fasting values)	Critical Range and Response
Infant (prior to feeds)	2.5 - 5.5 mmol/L	If glucose result is critical, less than 3.0 or greater than 22.0 notify physician.
If Child less than 3 years	2.5 - 5.0 mmol/L	
Child greater than or equal to 3 years	2.8 - 6.1 mmol/L	
Adolescent	3.3 - 6.1 mmol/L	

(SickKids, POC1211 - Nova Glucose Meter - Patient policy, 2019)

(Hospital for Sick Children, 2024)

Appendix D – Ottawa Ankle Rule

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

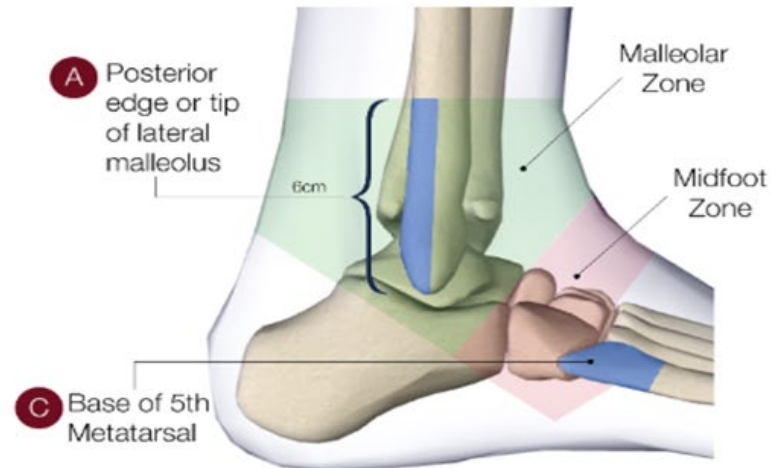
Bone tenderness at the posterior edge or tip of the lateral malleolus (A)

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...

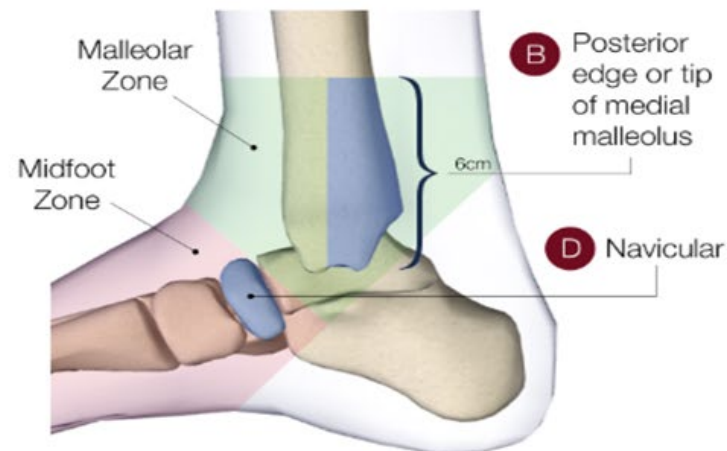
Bone tenderness at the base of the fifth metatarsal (C)

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 E – 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

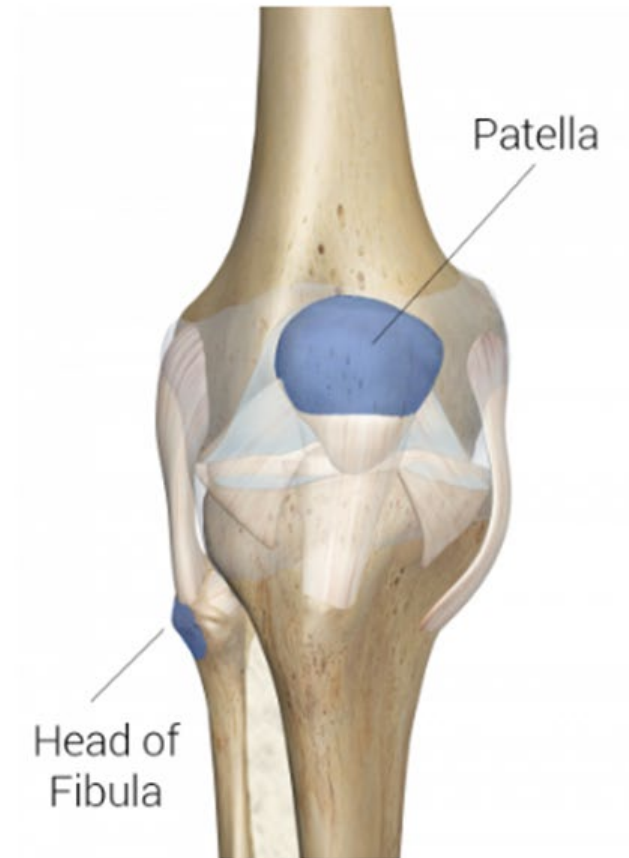
OR

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