



CORRECTIONAL SERVICE CANADA

CHANGING LIVES. PROTECTING CANADIANS.



Nursing Clinical Protocols for Emergency Situations

INTERIM GUIDANCE MODIFICATIONS DUE TO COVID-19

JUNE 1, 2020

NURSING CLINICAL PROTOCOLS FOR EMERGENCY SITUATIONS

CSC Nursing Clinical Protocols for Emergency Situations

The text in this publication should match the text in the current *Nursing Clinical Protocols for Emergency Situations* posted on the HUB at the URL below. Individuals who choose to work with the paper copy of the guidelines should verify that the printed version is consistent with the electronic version on the network.

This publication is designed to allow users to replace individual directives as they are updated. Therefore, the version date for individual directives may vary.

This policy was reviewed and approved by the National Medical Advisory Committee (NMAC) on April 30, 2020, and will be reviewed at least every 30 days by NMAC to ensure it remains consistent with the risks posed by the COVID-19 pandemic.

To view updates:

<http://thehub/En/about-csc/sectors/health-services/clinical-services/Pages/default.aspx#12>

Nursing Clinical Protocols for Emergency Situations – User Guide

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NURSING CLINICAL PROTOCOLS FOR EMERGENCY SITUATIONS

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NURSING CLINICAL PROTOCOLS FOR EMERGENCY SITUATIONS

A. 1 Background and Purpose

These clinical protocols are in keeping with provincial laws, regulations and professional practice standards. They are intended to guide and facilitate the management of emergency medical conditions by institutional nurses and reduce the risks of patient morbidity and mortality.

CSC Guideline 800-4, Response to Medical Emergencies (2017-01-30) requires that Health Services staff respond to medical emergencies within institutions. Medical emergencies are defined as “an injury or condition that poses an immediate threat to a person's health or life which requires medical intervention”.

Commissioner's Directive 568-1 Recording and Reporting of Security Incidents (2016-06-06) defines Serious Bodily Injury as “any injury as determined by Health Services personnel as having the potential to endanger life, or which results in permanent physical impairment, significant disfigurement or protracted loss of normal functioning”.

When responding to a medical emergency (including suspected medical emergencies), the nurse will bring the emergency medical equipment with them in order to reduce the possible delay in provision of appropriate assessment and treatment. Once on site, the nurse is expected to utilize the clinical protocol to guide their response consistent with professional standards and to seek medical advice and transfer as indicated at the earliest possible opportunity.

The order of implementation of interventions within each clinical protocol is subject to the discretion of the attending institutional physician and/or nursing staff considering the clinical setting. When the institutional physician is consulted and provides telephone orders that are within the scope of practice for nurses, this direction will override the clinical protocol.

A. 2 Relevant Policy

These clinical protocols are subject to consistency and compliance with provincial laws and regulations, as well as provincial medical and nursing regulatory body policies and regulations.

2.1 Federal Legislation and Regulation

Canada Health Act (R.S.C., 1985)

Controlled Drugs and Substances Act (S.C. 1996, c. 19)

2.2 Provincial/Territorial Documents

Provincial/Territorial Health Legislation and Regulation

Provincial/Territorial Standards of Practice for Health Professionals

2.3 CSC Policy — CDs and Guidelines

CD 800- Health Services

Specific Guidelines for the Treatment of Opiate Dependence (Methadone/Suboxone)

Guidelines - Automated External Defibrillators (AED)

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A. 3 Specific Responsibilities

3.1 Director General Clinical Services and Public Health

In collaboration with the National Medical Advisor, the Director General Clinical Services Public Health will create/update clinical protocols as necessary. Annual reviews will occur. These clinical protocols will be readily available to the nursing staff at each institution.

3.2 Chief, Health Services (CHS)

The CHS will ensure that initial and recertification training programs are provided to staff. The CHS will also ensure that a process is in place for checking emergency equipment and supplies (e.g. oxygen, emergency bag, emergency medications, etc.) once a day and following emergency situations. Supplies and medications that are expired or have been opened or used will be replaced. This will help ensure that nurses have the necessary equipment and supplies required during an emergency situation.

Following the application of a clinical protocol, the CHS will evaluate application of the clinical protocol and the level of care delivered. The focus of this review process is on education, training and quality improvement. The CHS will complete the Quality Management Form Clinical Protocols for Emergency Situations, which will be maintained in a separate file for audit purposes.

The electronic health care record provides the primary data source. During the file review, consideration will be given to the following:

- the appropriateness of the assessment and treatment
- adherence to the Clinical Protocol, and,
- completion of documentation

In the event that an issue is identified, the CHS will:

- review the circumstances and discuss the case with the staff member (s) involved.
- identify the issue and establish a plan to address compliance which includes:
 - a description of the plan
 - training/educational requirements
 - the action taken and the outcome
- document the corrective course of action.

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3.3 Nurses

Nurses are authorized to utilize the clinical protocols in appropriate circumstances and within the defined parameters ensuring prudent practice and discretion. Application of all or part of a clinical protocol is at the discretion of the institutional physician and/or attending nurse as indicated by the clinical presentation. Telephone orders provided by institutional physicians may interrupt the activities within the clinical protocol.

When responding to a medical emergency including suspected medical emergencies, the nurse will bring the emergency medical equipment with them in order to reduce the possible delay in provision of appropriate assessment and treatment.

In all situations where clinical protocols have been applied, do the following:

- Identify the reasons for using the clinical protocol.
- Complete a comprehensive nursing assessment. This involves a “hands-on” physical assessment and must not be conducted through a cell food slot.
 - continuous vital signs monitoring including pulse oximetry if available
 - patients with altered levels of consciousness will be kept NPO
 - reassessment of the Glasgow coma scale will be completed
 - consider the possibility of CO₂ retention (hypercapnia) in patients with COPD
- Document the assessment and all treatment provided in the offender’s electronic medical record. The institutional physician should co-sign the treatment at their next clinic.
- Complete a transfer summary if necessary.
- Ensure that the Emergency Department/Emergency Physician is aware that if the patient is discharged back to the institution, there is no ability to monitor them.
- Add new medication used during the application of the clinical protocol to the medication administration record.
- Initiate the Quality Management Form Clinical Protocols for Emergency Situations and forward it to the CHS for completion.

A. 4 Emergency Drug Box

The emergency drug box contains those drugs deemed necessary to respond to a medical emergency in CSC. Some items required to meet clinical protocols are supplementary (i.e., morphine, methylprednisolone, salbutamol) and as a result will remain available in the Health Care Centre.

A minimum of two drug boxes are to be held at each institution in each Health Care Centre. It is in kit form to enable its use for offsite emergencies and is referred to as the emergency drug box. Replacement kits will be kept in the Regional Pharmacy.

NURSING CLINICAL PROTOCOLS FOR EMERGENCY SITUATIONS

4.1 Nurses

Nurses must be familiar with the location and contents of the emergency drug box. Nurses will break the security seal to access the contents. If the integrity of the security seal has been altered, the nurse must return the emergency drug box to Regional Pharmacy for exchange. Used items, trash, and/or biohazards will be removed prior to exchange.

4.2 Chief, Health Services

The CHS will ensure the presence of the emergency drug boxes and will assign staff to complete daily checks. As part of nursing orientation, the CHS will ensure that staff is aware of the location and purpose of the emergency drug box.

4.3 Procedure

Nurses will check the emergency drug box routinely on a daily basis and following use for:

- Presence and location
- Expiry dates of each drug box

Exchange of the emergency drug box will be completed by the Regional Pharmacy within 72 hours after each use or 21 days prior to expiration.

4.4 Emergency Medication Drug Box Contents

Institution				Box	
This emergency medication kit contains the following:					
4	ASA chewable 80mg		2	Furosemide 10mg/ml x2ml amp	
1	Activated charcoal (50gm)		2	Glucagon kit	
2	Dextrose 50% prefilled syringes		2	Glucose gel (31 gm)	
4	Diazepam 5mg/ml amp		1	Ipratropium Bromide inhaler	
2	Dimenhydrinate 50mg/ml amp		6	Naloxone 0.4mg/ml amp	
2	Diphenhydramine 50mg/ml inj		2	Naloxone 4mg nasal spray	
2	Diphenhydramine 50mg tabs		1	Nitroglycerine 0.4mg spray	
3	Epinephrine 1:1000 amp		5	Prednisone 50 mg tabs	
2	EpiPen® adult		1	Salbutamol inhaler	
THIS EMERGENCY KIT EXPIRES ON THIS DATE _____.					
Please notify pharmacy prior to this date for replacement.					

NURSING CLINICAL PROTOCOLS FOR EMERGENCY SITUATIONS

A. 5 Emergency/Trauma Bag

The Emergency/Trauma bag contains all supplies and equipment deemed, at a minimum, necessary to respond to a medical emergency in CSC institutions. Some items required to meet clinical protocols were not deemed essential to respond to medical emergencies (i.e., electrocardiogram machine, humidified oxygen) and as a result will remain available in the Health Care Centre.

5.1 Nurses

Nurses are required to be familiar with the location and contents of the Emergency/Trauma Bag. They will participate in daily, weekly or monthly checks and restock the bag with supplies after each use as per the *Medication Device Maintenance Program (May 2013)* and ensure that supplies are within expiry dates, undamaged and placed in clearly marked or identifiable areas of the bag.

The equipment must be in useable and serviceable condition with sufficient battery charge and extra batteries if appropriate. The level and condition of oxygen tanks will be checked daily and recorded as per the *Medication Device Maintenance Program (May 2013)*. Used items, trash and/or biohazards will be removed from the bag. A list of the emergency equipment and supplies must be kept in or close to the kit for checking purposes.

5.2 Chief, Health Services

The CHS will ensure that each institution maintains at least one portable Emergency/Trauma Bag containing at least the standard minimum list provided (below) and that staff is aware of the location and purpose of the emergency drug box as part of orientation to the Health Care Centre.

The CHS will ensure that the emergency equipment and supplies (Emergency /Trauma Bag, Emergency Drug Box, stretchers, etc.) are maintained, ready and available for use at all times and are portable enough to be carried or wheeled to the site of the emergency. The equipment and supplies must be stored in a clean, dry and secure location that is easily accessible to Health Services staff at all times. The CHS will also ensure that equipment and supplies are available to the nurses for the replenishing of the bag and will assign staff to complete daily, weekly or monthly checks. Additional equipment and/or supplies may be added in consultation with the institutional physician.

5.3 Standard Emergency/Trauma Bag Content

AIRWAY MAINTENANCE

AeroChamber	2
Airway cannula (nasopharyngeal) (S, M, L)	3
Airway cannula (oropharyngeal) (S, M, L) (Or suitable alternatives)	3
Disposable ambu bag with filter	1
CPR pocket face mask (do not use as per COVID-19 protocol)	1
C-Spine collars (adjustable)	1
Portable Suction machine (1 + 1 disposable refill)	1
Non-rebreather mask (do not used as per COVID-19 protocol)	2
O ₂ saturation probe (Or portable vital signs machine)	1
O ₂ tank and tank key (checked daily)	1
Peak Expiratory Flow Rate Meter	1
Water soluble lubricant for airway insertion (1 small tube or 3 packages)	3

DRESSING SUPPLIES

NURSING CLINICAL PROTOCOLS FOR EMERGENCY SITUATIONS

Abdominal pads (large, suggest 6x9)	6
Alcohol swabs	10
Asherman chest seal	1
Bandage scissors	1
Bottle of normal saline solution (500 mL)	1
Eye pad	2
Forceps (or sterile dressing kit with forceps)	1
Gauze 4x4, 2x2, sterile packages	20
Kling (4" rolls)	2
Medical tape (1" & 2" Rolls)	2
Telfa (3X5 preferable)	6
Tensor (4" rolls)	2
Tongue depressors	6
Combat application tourniquet	1
Triangle bandage	2

EQUIPMENT

Blood pressure cuff (Large and Standard)	2
Glucometer, strips and 10 finger picks, packaged together	1
Pen light	1
Sharps container	1
Stethoscope	1
Thermometer (Or portable vital signs machine)	1

IV SUPPLIES

Angio-catheters (sizes 18G, 20G, 22G) and/or butterflies (various sizes)	5
D5W 500 mL bag minimum	1
IV tubing	4
Needles, 18G, 22G, 25G (various size)	6
N/S 0.9% 500mL bag minimum (or R/L as alternative)	1
Saline lock (Salinlock, interlock system preferred)	5
Syringes 3cc/5cc (3 of each) and 10 ml ampoules N/S, or prefilled syringes	6
Tegaderm	4
Latex tourniquet	1

OTHER

Biohazard bag	1
CSC Form #471-Progress notes	2
CSC Form #1266- Emergency Flow sheet (includes Glasgow coma scale)	2
Emergency blanket	2
Paper and pens	2

NURSING CLINICAL PROTOCOLS FOR EMERGENCY SITUATIONS

A. 6 Abbreviations

ACE	Angiotensin converting enzymes	MDI	Meter Dose Inhaler
AED	Automated External Defibrillator	mg	Milligram
ALOC	Altered Level of Consciousness	mL	Millilitre
ASA	Acetylsalicylic Acid	mmHg	Millimetre of mercury
BP	Blood Pressure	mmol/L	Millimole per litre
BS	Blood Sugar	N/S	Normal Saline
CAB	Circulation, airway, breathing	NPO	Nothing by mouth
CHF	Congestive Heart Failure	NSAID	Non-steroidal anti-inflammatory drugs
CNS	Central Nervous System	O ₂	Oxygen
CO ₂	Carbon Dioxide	O ₂ Sat/ SaO ₂	Oxygen Saturation
COPD	Chronic Obstructive Pulmonary Disease	P	Pulse
CPR	Cardio-Pulmonary Resuscitation	PEFR	Peak Expiratory Flow Rate
D5W	5% Dextrose w/ Water	P.O.	By Mouth (Per Os)
EKG	Electrocardiogram	PR	Per Rectum
GCS	Glasgow Coma Scale	R/L	Ringers Lactate
IM	Intramuscular	S.C.	Subcutaneous
inh	Inhalation	SL	Sublingual
IV	Intravenous	T	Temperature
kg	Kilogram	TBSA	Total Body Surface Area
L/min	Litres per minute	TIA	Transient Ischemic Attack
mcg	Microgram		

NURSING CLINICAL PROTOCOLS FOR EMERGENCY SITUATIONS

A. 7 Glasgow Coma Scale (GCS)

The Glasgow Coma Scale is a standard tool used to assess the degree of brain impairment. Rate each of the 3 determinants below separately. Results may be interpreted as follows:

- 13 to 15 **mild** brain injury
- 9 to 12 **moderate** brain injury
- 8 or less **severe** brain injury

	Rating	Score
Eye opening		
Open spontaneously	4	
Open in response to voice	3	
Open in response to pain	2	
No response	1	
Sub-Total		
Best Verbal Response		
Orientated (person, place, time)	5	
Confused, speaks but is disoriented	4	
Inappropriate, but comprehensible sounds	3	
Incomprehensible sounds, no words are spoken	2	
None	1	
Sub-Total		
Best Motor Response		
Obeys command to move	6	
Localizes painful stimuli	5	
Withdraws from painful stimuli	4	
Abnormal flexion, decorticate posturing	3	
Extension, abnormal decerebrate posturing	2	
None	1	
Sub-Total		
Total		

LEGEND

- Key tasks to complete.
 - Background information for task.
 - A sub-task of the key task.

NURSING CLINICAL PROTOCOLS FOR EMERGENCY SITUATIONS

B. 1 Altered Level of Consciousness (ALOC)

Clinical presentation	Decreased responsiveness and/or unresponsive Confusion, agitation, drowsiness Hypotension Tachycardia	Fever, diaphoresis Cool and clammy Decreased respirations Difficulty maintaining a patent airway
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- Assess and appropriately manage CAB (circulation, airway and breathing). Protect airway and suction as needed.
- Keep NPO and be prepared to manage vomiting. Protective reflexes such as cough and gag may be lost.
- C-spine precautions if there is a history or suspicion of injury.
- Obtain vital signs (BP/P/RR/T and O₂Sat) and GCS and monitor continuously.
- Administer O₂ at 5 L/min via nasal canula or mask. **Caution use in patients with a history of COPD (CO₂ retainers)**
- **If GCS is 13 or higher**, no history of loss of consciousness and stable vital signs, then continue the assessment.
- **If GCS is less than 13** or there is a history of loss of consciousness, **Call 911!**
- Obtain blood glucometer reading. If BS less than 4mmol/L, ⇒ manage per Hypoglycemia Clinical Protocol.
- If history suggests overdose, ⇒ manage as per Overdose/Poisoning Clinical Protocol.
- Establish IV access and infuse N/S or R/L solution at 30-50 mL per hour.
- Perform EKG if available.
- Contact institutional physician for orders/advice.

Patient Disposition

- Consult with the institutional physician regarding managing the patient on-site or transferring to the community hospital.

Physician Signature		Date (yyyy-mm-dd):	
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NURSING CLINICAL PROTOCOLS FOR EMERGENCY SITUATIONS

B. 2 Anaphylaxis

Clinical presentation	Generalized hives and pruritus (itching) Shortness of breath, wheezing/stridor Sensation of throat tightness or swelling	ALOC Hypotension Tachycardia
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- Assess and appropriately manage CAB (circulation, airway and breathing). Protect airway and suction as needed.
- Obtain vital signs (BP/P/RR/T and O₂Sat) and monitor continuously.
- Administer O₂ at 5 L/min via mask or nasal canula. ****Caution use in patients with a history of COPD****
- Administer the following and repeat every 5-10 minutes as necessary to a maximum of 3 doses.
 - EpiPen® Adult (0.3 mL Epinephrine 1:1000) IM
 - OR**
 - 0.3 to 0.5 mL 1:1000 Epinephrine Stock Solution IM
- **Call 911!**
- If wheezes are present, administer the following and repeat every 5-15 minutes as necessary to a maximum of 3 doses.
 - Salbutamol 100 mcg (Ventolin) 6-8 puffs via an AeroChamber. Use of AeroChamber with mask recommended for patients with significant difficulty on inspiration
- Contact institutional physician for orders/advice.
- Establish IV access and infuse N/S solution at 30-50 mL per hour and administer:
 - Diphenhydramine (Benadryl) 50 mg P.O. or IM.
 - AND**
 - If in Health Care Centre, Methylprednisolone (Solu-Medrol) 80 mg IV diluted in 50-100 mL of N/S over 15 minutes.

Patient Disposition

- Consult with the institutional physician regarding managing the patient on-site or transferring to the community hospital.
- If the patient is not transferred to the community hospital, they must be observed for at least 4-6 hours in Health Services to make sure there is no rebound after the Epinephrine effect wears off.

Physician Signature:		Date (yyyy-mm-dd):	
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NURSING CLINICAL PROTOCOLS FOR EMERGENCY SITUATIONS

Epinephrine/EpiPen®: Sympathomimetic

Indication	Management of anaphylaxis. Causes vasoconstriction and bronchodilation.
Administration	IM: May repeat every 5-10 minutes to a maximum of 3 doses. Onset is within 5-10 minutes. In CSC: Individual 1 ml ampoules and auto injectors (EpiPen®). The ampoule contains 1mg of epinephrine in 1 ml (1/1000 = 1mg/ml). The EpiPen® contains 0.3 mg per injection.
Nursing Implications	Monitor in Health Services for 4-6 hours if not transferred to the community hospital. Side effects include irregular heart rate, ↑ BP, anxiety/fear, headache, chest pain.

Salbutamol/Ventolin: Bronchodilator

Indication	Bronchospasm associated with asthma. Causes smooth muscle relaxation which results in bronchodilation.
Administration	100 & 200 mcg via metered-dose inhaler (puffer) . Onset of action is within 5 minutes and peak action is 60-90 minutes. MDI (puffer) with AeroChamber: Shake well between administrations.
Nursing Implications	Side effects include nervousness and tremors, headache, palpitations, insomnia, nausea, weakness and dizziness.

Solu-Medrol (Methylprednisolone): Glucocorticoid

Indication	Severe allergic reaction/anaphylaxis. Modifies the body's immune response and decreases inflammation.
Administration	IV: Dilute in 50-100 mL of N/S and bolus. Onset is rapid and duration is up to 7 days.
Nursing Implications	Monitor for profound weakness.

Diphenhydramine (Benadryl): Antihistamine

Indication	Antihistamine with anticholinergic (drying) and sedative side effects.
Administration	P.O: if alert IM: (immediate onset)
Nursing Implications	May potentiate sedative effects of certain medications (psychiatric medications, anxiolytics, anticonvulsants, muscle relaxants, narcotics). May cause drowsiness.

NURSING CLINICAL PROTOCOLS FOR EMERGENCY SITUATIONS

B. 3 Burns

Clinical presentation	Superficial Partial-Thickness	Moderate to severe painful moist, red, weeping blisters Blanches with pressure Usually heals in 7 to 21 days
	Deep Partial Thickness	Moderate to severe pain (may be painful to pressure only) Almost always blisters Does not blanch with pressure Usually heals in 3 to 4 weeks and scars
	Full thickness	Painless Skin is waxy white, leathery or charred and black Healing is slow and may require grafting due to involvement of deep tissues

Rule of Nines: Extent of burn is expressed as a total percentage of total body surface area.

	% of Total Body Surface Area
Head/neck	9% TBSA
Each arm	9% TBSA
Each leg	18% TBSA
Anterior trunk	18% TBSA
Posterior trunk	18% TBSA
Perineum	1% TBSA
TOTAL	100%

- For smoke inhalation, ⇒ manage as per Smoke Inhalation Clinical Protocol.
- Assess and appropriately manage CAB (circulation, airway and breathing). Protect airway and suction as needed. Keep NPO.
- C-spine precautions if there is a history or suspicion of injury.
- Obtain vital signs (BP/P/RR/T and O₂Sat) and monitor continuously.
- Administer O₂ at 5L/min via nasal canula or mask. **Caution use in patients with a history of COPD**
- Remove hot or burned clothing, cutting around clothing that is adhered to the skin. Remove jewelry, contact lenses (if facial area involved) and brush any dry chemical from skin.
- Determine depth and severity of burns:

(Continued)

NURSING CLINICAL PROTOCOLS FOR EMERGENCY SITUATIONS

- **Minor burn(s): less than 10% Total Body Surface Area.**
- Moderate to Major burn(s) (any one or combination of the following): **Call 911!**
 - greater than 10% Total Body Surface Area
 - burns to face, eyes, ears, genitalia or over joints
 - patient is diabetic
- Apply moist, saline dressing to cover burned areas.
- Contact institutional physician for orders/advice.
- **For moderate to major burns, establish IV access (not through burned tissue):**
- Infuse N/S or R/L at 30-50 mL per hour.
- If there is no contraindication and the patient is in the Health Care Centre, consider administering:
 - Morphine 5 mg IM q 30 minutes to a maximum dose of 10 mg

OR

 - Morphine 2 mg IV (diluted) q 15 minutes to a maximum dose of 10 mg.

Dilute for IV administration: Using a 10 mL syringe, dilute 1 mL of the 10 mg/mL Morphine solution (from vial) with 9 mL N/S. The resulting solution contains 1 mg/mL of Morphine. From this solution, administer 2 mL which equals Morphine 2 mg
- For all electrical burns perform EKG if available.
- Determine tetanus status.

Patient Disposition

- Consult with the institutional physician regarding managing the patient on-site or transferring to the community hospital.

Physician Signature:		Date (yyyy-mm-dd):	
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NURSING CLINICAL PROTOCOLS FOR EMERGENCY SITUATIONS

Morphine: Opioid, Analgesic

Indication	Opioid analgesic for the treatment of moderate to severe acute or chronic pain.		
Peak Action	S.C.	IM	IV
	Peak Analgesic Action 50 to 90 minutes	Peak Analgesic Action 30 to 60 minutes	Peak Analgesic Action 20 minutes
	Duration: 3 to 5 hours	Duration: 3 to 5 hours	Duration: 3 to 5 hours
Administration	IM or S.C.: Undiluted	IV direct: Dilute with 10 mL N/S and give over 5 minutes	
Nursing Implications	<p>Oxygen and Naloxone must be available! May cause apnea, respiratory depression.</p> <p>Contraindications:</p> <p>Hypersensitivity to opiates, respiratory depression, pulmonary edema caused by chemical respiratory irritant, status asthmaticus, and upper airway obstruction.</p>		

B. 4 Cardiac Arrest

Clinical presentation	Unresponsive, absent vital signs.	
NOTE	Resuscitation efforts should not be initiated in the following situations:	
	Documented Do Not Resuscitate (DNR) order Decomposition / putrefaction Decapitation	Rigor mortis Dependent lividity

- If alone, call for help and **Call 911!**
- Retrieve/have someone retrieve the Automated External Defibrillator (AED).
- Assess and appropriately manage as per CPR/AED Level HCP Certification. DO NOT VENTILATE
- C-spine precautions if there is a history or suspicion of injury.
- Place patient on a firm flat surface (i.e., back board).
- USE THE CPR INTERIM PROTOCOL FOR COVID 19
- Initiate use of AED. Follow voice prompts until return of pulse and respirations or arrival of ambulance services.
 - If return of pulse, leave the AED powered “ON” and unplug/disconnect the electrodes from the AED, leaving them attached to the patient. In the event that the patient becomes pulseless again, this will maintain the readiness of the AED and allow the rescuer to quickly reconnect the electrodes to the AED machine.
 - Keep AED powered “ON” until care is transferred to the paramedics, then the AED should be turned “OFF”.
- Establish IV access and infuse N/S at 30-50 mL per hour.
- Contact the institutional physician.
- Monitor vital signs and pulse oximeter continuously.

Patient Disposition

- Transfer to the hospital for evaluation and treatment unless otherwise directed by the physician.

Physician Signature:		Date (yyyy-mm-dd):	
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B. 5 Chest Pain

Clinical presentation	Sudden or gradual mid-anterior chest, sub-sternal, sub-scapular, and/or epigastric pain. Described as squeezing, tightness, pressure, constriction, burning, heavy weight, band-like discomfort. May radiate to the neck, throat, jaw, teeth or down one or both arms. Associated symptoms may include nausea, weakness, light-headedness, shortness of breath, and/or diaphoresis.
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- Assess and appropriately manage CAB (circulation, airway and breathing).
- Obtain vital signs (BP/P/RR/T and O₂Sat) and monitor continuously.
- Administer O₂ at 5 L/min via nasal canula or mask..**Caution use in patients with a history of COPD**
- Unless contraindicated, have patient chew Aspirin (ASA) 80 mg tablets X 2 . .
- If systolic BP is greater than 100 mmHg, administer:
 - Nitroglycerin 0.4 mg/spray SL.

Nitroglycerin should not be administered if there is a history of recent use of Sildenafil (Viagra), or Vardenafil (Levitra) within the last 24 hours. In the case of Tadalafil (Cialis), nitroglycerine should not be administered within the last 48 hours

- If pain unresolved and systolic BP is stable and greater than 100 mmHg:
 - Repeat Nitroglycerine 0.4 mg every 5 minutes to a maximum of 3 doses.
- **Call 911!**
- Establish IV access and infuse N/S at 30-50 mL per hour.
- If systolic BP is below 90 mmHg:
 - Bolus 250 mL N/S to achieve a systolic BP of 100 mmHg.
- If no response, contact institutional physician for orders/advice.
- Perform EKG if available.
- If complaining of nausea, administer:
 - Dimenhydrinate (Gravol) 25 mg (diluted) IV.

Using a 10 mL syringe, draw 9 mL of N/S into syringe. Draw 25 mg of Gravol into syringe and mix. Deliver over one (1) minute

Patient Disposition

- Transfer to the hospital for evaluation unless otherwise directed by the physician.

Physician Signature:		Date (yyyy-mm-dd):	
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Acetylsalicylic Acid (ASA): Platelet Aggregation Inhibitor

Indication	When taken during a heart attack, aspirin slows clotting and decreases the size of the blood clot that is forming ultimately reducing the risk of death.
Administration	Chew two 80 mg tablets (if alert and responsive) immediately. Begins to work within 15-30 minutes and lasts approximately 2 hours post-ingestion.
Nursing Implications	Contraindicated in patients with sensitivity/allergy to ASA or NSAIDs.

Nitroglycerin: Vasodilator

Indication	Chest pain, congestive heart failure. Reduces myocardial oxygen consumption by acting as a vascular smooth-muscle relaxant and vasodilator.
Administration	IN CSC: Nitroglycerine is administered in either a spray (0.4 mg) or sublingual tablet (0.3 mg). Onset is immediate and the duration is 3-5 minutes.
Nursing Implications	Monitor vital signs especially blood pressure! Causes orthostatic hypotension. Side effects may include tachycardia or bradycardia, palpitations, headache, dizziness, weakness, facial flushing, and nausea and/or vomiting

Dimenhydrinate (Gravol): Antihistamine and anticholinergic

Indication	Decreases nausea and vomiting.
Administration	PO, PR, IM, IV If administering IV: Dilute Gravol 25-50 mg in 10 mL N/S and deliver over one (1) minute. Immediate onset.
Nursing Implications	Side effects may include dizziness, drowsiness, hypotension, and dry mouth, throat and nose. Contraindicated in patients with allergies, ALOC, and overdose of anticholinergics, tricyclic antidepressants, or antihistamines.

B. 6 Extreme Body Temperature (environmental)

Clinical presentation	Hyperthermia: Rectal temperature ↑ 40°C Postural BP and P changes Tachycardia Impaired judgment Bizarre behavior, hallucinations Confusion, disorientation, coma	Hypothermia: Rectal temperature ↓ 34°C Impaired judgment, confusion Ataxia, unsteady gait Obtunded, unconscious, coma Depressed or absent respirations Bradycardia, hypotension Rigid extremities (like rigor mortis)
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- Assess and appropriately manage CAB (circulation, airway and breathing).
- C-spine precautions if there is a history or suspicion of injury.
- Obtain vital signs (Rectal T/BP/P/RR and O₂Sat) and monitor continuously. **Core temperature is measured rectally.**
- Administer O₂ at 5 L/min via nasal canula or mask. ****Caution use in patients with a history of COPD****
- Undress the patient completely.
- If the patient becomes pulseless, **Call 911!** ⇒ manage as per Cardiac Arrest Clinical Protocol - interim procedure for COVID-19.

For Hyperthermia (elevated core temperature):

- Cool the patient using conduction cooling. Apply cool wet towels/blankets to the skin and/or apply ice packs to the axilla, neck, and groin or spray with cool water and direct fan toward patient.
- Establish IV access and infuse N/S at 30-50 mL per hour. If significant dehydration:
 - Bolus of 250 mL N/S followed by 100 mL IV per hour.
- If patient is alert and oriented, encourage oral intake of cold drinks.
- Contact institutional physician for orders/advice.

For Hypothermia (decreased core temperature): Call 911!

- If cardiac arrest present, resuscitation efforts can be withheld if the body is frozen so completely that chest compressions are impossible or if the nose and mouth are blocked with ice.
- Cover with warm blankets.
- Establish IV access and infuse warmed N/S or R/L at 150 mL per hour. ****Submerge IV bags in warm water. Do not microwave!****
- Contact institutional physician for orders/advice.
- Continue re-warming efforts until core temperature is 32°C to 35°C (90°F to 95°F).

Patient Disposition

- Transfer to the hospital for evaluation unless otherwise directed by the physician.

Physician Signature:		Date (yyyy-mm-dd):	
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B. 7 Head Injury Trauma

Clinical presentation	Scalp hematoma, laceration Headache, dizziness, vomiting Bruise and/or contusions to head and neck Blood/cerebral spinal fluid from ears/nose	Confusion, amnesia ALOC, coma Abnormal posturing i.e., decorticate (flex arms towards "core") or decerebrate (extension of arms)
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- Assess and appropriately manage CAB (circulation, airway and breathing). Protect airway and suction as needed. Protective reflexes such as cough and gag may be lost. Be prepared to manage vomiting in the unresponsive patient.
- C-spine precautions if injury and secure the patient on a backboard.
- Apply direct pressure to scalp wounds. Do not remove any objects still protruding from the head. Stabilize with bulky dressing if indicated.
- Assess vital signs (BP/P/RR/T and O₂Sat) including neuro-vital signs and GCS. Monitor continuously.
- Administer O₂ at 5 L/min via nasal canula or mask. ****Caution use in patients with a history of COPD****

If GCS is 13 or higher and no history of loss of consciousness and stable vital signs, then observe and contact the physician.

If GCS is less than 13 or there is a history of loss of consciousness, Call 911!

- Establish IV access and infuse N/S or R/L at 30-50 mL per hour.

Patient Disposition

- Transfer to the hospital for evaluation unless otherwise directed by the physician.

Physician Signature:		Date (yyyy-mm-dd):	
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B. 8 Hypoglycemia

Clinical presentation	Nervousness/shakiness Hunger Perspiration, cool clammy skin	Difficulty speaking Combativeness, agitation ALOC, drowsiness, coma
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- Assess and appropriately manage CAB (circulation, airway and breathing). Suction as needed.
- Obtain vital signs (BP/P/RR/T and O₂Sat) and monitor continuously.
- Obtain glucose level and reassess every 3-5 minutes by glucometer until greater than 4 mmol/L.
- Administer O₂ at 5 L/min via nasal canula or mask. ****Caution use in patients with a history of COPD****
- If the patient is responsive, administer:
 - One tube of dextrose gel as indicated in the mouth or in the lower buccal mucosa.
- If the patient is unresponsive, **Call 911!**
- If the patient is unresponsive or no response to dextrose gel, administer:
 - Glucagon* 1 mg S.C. or IM. May repeat once or twice.

****Glucagon must be reconstituted with the accompanying diluent**** Follow the detailed directions contained within the User package insert.
- An improvement in BS as well as symptoms should occur within 10 to 15 minutes following administration of Glucagon.
- If the patient fails to improve, establish IV access into a large vein:
 - Slowly infuse a bolus of 25 mL of 50% Dextrose IV.
- If patient has not improved and blood glucose remains less than 4 mmol/L:
 - Slowly infuse an additional 25 mL of 50% Dextrose IV (second bolus).
- Contact the institutional physician.

Patient Disposition

- Consult with the institutional physician regarding managing the patient on-site or transferring to the community hospital.

Physician Signature:		Date (yyyy-mm-dd):	
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Dextrose Gel/Tablets: Monosaccharide

Indication	Management of hypoglycemia in conscious diabetics.
Administration	Gel: Place in mouth and rub on cheeks and gums. Use the entire content of the tube. Peaks in 40 minutes.
Nursing Implications	Monitor blood glucose for signs of rebound hyperglycemia.

Glucagon: Hyperglycemic Agent

Indication	Management of hypoglycemia in unconscious diabetics.
Administration	Reconstitute Glucagon with the accompanying diluent (equivalent to 1 mg/ml). After dissolving Glucagon with diluting solution, use immediately. Discard any unused portion. Glucagon should be clear and of a water-like consistency at time of use. IM, SC: onset 8-10 minutes. IV: immediate onset.
Nursing Implications	Monitor blood glucose every 3-5 minutes until greater than 4.0 mmol/L. Manage nausea and vomiting. Caution: Glucagon decreases the serum potassium concentration. Monitor for arrhythmias. Transient increase in BP and P after IV Glucagon.

Dextrose 50% in Water: Carbohydrate Substrate

Indication	Acute management of hypoglycemia in adults.
Administration	25 mL of 50% dextrose solution, IV undiluted. Give slowly to minimize venous irritation and to reduce the risk of inducing significant hyperglycemia or hyperosmolar syndrome.
Nursing Implications	Check blood sugar every 3-5 minutes until is greater than 4.0 mmol/L. Do not administer concentrated solution if intracranial hemorrhage is present or suspected.

B. 9 Overdose/Poisoning

Clinical presentation	ALOC, sedation, seizures Aggression/agitation/hallucinations Slow/slurred speech, gurgling, snoring Pinpoint pupils (miosis)	Respiratory distress, cyanosis Abnormal vital signs including O ₂ Sat Cardiac arrhythmias Cardiac arrest, death
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- Assess and appropriately manage CAB (circulation, airway and breathing). Protect airway and suction as needed. Protective reflexes such as cough and gag may be lost. Be prepared to manage vomiting in the unresponsive patient.
- C-spine precautions if there is a history or suspicion of injury.
- Obtain vital signs (BP/P/RR/T and O₂Sat), including neuro-vital signs and GCS. Monitor continuously.
- Administer O₂ at 5 L/min via nasal canula or mask. **Caution use in patients with a history of COPD**
- Attempt to determine drug/substance involved, route, amount, and time of poisoning/overdose.
- If toxic skin exposure is suspected, remove all clothing and decontaminate the skin (shower or scrub). Use gloves to dust off any dry particulate matter prior to applying water.
- Establish IV access and infuse N/S or R/L at 30-50 mL per hour.

If GCS is 13 or higher and vital signs are stable, then for all patients:

- Obtain blood glucometer reading and if less than 4 mmol/L, ⇒ manage as per Hypoglycemia Clinical Protocol.
- If the patient is alert and able to drink and no concern for immediate respiratory depression, then:
 - Administer one bottle of activated charcoal (Charcodoate) 50g.
 - If caustic/corrosive ingestion is suspected, do not administer activated charcoal.
- Contact institutional physician for orders/advice. Consider calling Provincial Poison Control (_____)

If GCS is less than 13: Call 911!

- Administer Naloxone (Narcan) 0.4 mg by IV, IM, or S.C (IV dose: undiluted over 30 seconds)
 - Based on signs and symptoms and response to previous doses, administer additional doses of Naloxone IV, IM or S.C every 3-5 minutes
- OR**
- Administer Naloxone (Narcan) 4 mg (1 spray) nasally.
 - Based on signs and symptoms and response to previous doses, administer additional doses of Naloxone nasal spray as necessary every 2-3 minutes.
- Perform an EKG if available.
 - If the patient becomes pulseless, **Call 911!** ⇒ manage as per CPR/AED level HCP certification and CPR INTERIM PROTOCOL FOR COVID-19

Patient Disposition

- All patients should be transferred to the community hospital unless otherwise directed by the institutional physician.

Physician Signature:		Date (yyyy-mm-dd):	
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Activated Charcoal (Charcodoate) with Sorbitol

Indication	For treatment of overdose/poisoning in alert patients. It prevents the absorption of ingested substances from the GI tract.
Administration	<p>Within 2 hours of ingestion of drug or chemical! Shake well for at least 1 minute prior to administration.</p> <p>Onset: within about 1 minute after activated charcoal comes into contact with the drug or chemical</p> <p>Peak: within 10-25 minutes.</p>
Nursing Implications	<p>If the level of consciousness decreases, be aware of the risk of aspiration if the patient vomits.</p> <p>Contraindicated in the ingestion of caustic agents and pure petroleum distillates.</p>

Naloxone (Narcan)

Indication	For the complete or partial reversal of known or suspected opioid overdose. Naloxone will have no effect on the patient's condition if the overdose is not opioid related. Patient's prescribed long-term narcotic therapy or have an addiction will experience withdrawal symptoms following administration of Naloxone.
Action	<p>Onset: IV: within 2 minutes</p> <p>IM/SC/Nasal: slightly longer</p> <p>Half-Life: Between 30 and 81 minutes</p> <p>Duration: IM administration has a more prolonged effect than IV administration.</p>
Administration	<p>Injection: over 30 seconds, undiluted</p> <p>Nasal spray: 4 mg spray. Insert tip of nozzle into either nostril and press plunger firmly to deliver the dose.</p>
Nursing Implications	<p>Patient may vomit as Naloxone starts to take effect.</p> <p>Patient must be closely monitored after administration of Naloxone. The effects of antidote will wear off and the patient may again experience overdose symptoms.</p> <p>Abrupt reversal of opioid overdose may result in nausea, vomiting, sweating, tremulousness tachycardia and/or increased BP, and rarely, cardiac arrest.</p>

B. 10 Seizure

Clinical presentation	Jerky repetitive movements, posturing Incontinence Drooling and/or foaming of mouth Post-ictal: drowsiness, confusion
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- Assess and appropriately manage CAB (circulation, airway and breathing). Protect airway and suction as needed.
- Obtain vital signs (BP/P/RR/T and O₂Sat) and GCS and monitor continuously.
- Administer O₂ at 5 L/min via nasal canula or mask. ****Caution use in patients with a history of COPD****
- Obtain glucose level. If less than 4 mmol/L, ⇒ manage as per Hypoglycemia Clinical Protocol.
- Establish IV access and infuse N/S at 30-50 mL per hour.
- Contact institutional physician for orders/advice.
- If the seizure activity fails to stop after 5 minutes, **Call 911!**
- Administer:
 - Diazepam (Valium) 5mg IM, IV. If given IV, administer over 1 minute.
 - Repeat Valium 2-5 mg IV every 5 minutes if seizure continues. Maximum total dose 20 mg.

****Diazepam can lead to respiratory depression. Be prepared to manage the airway****

Patient Disposition

- Consult with the institutional physician regarding managing the patient on-site or transferring to the community hospital.

Physician Signature:		Date (yyyy-mm-dd):	
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Diazepam/Valium: Benzodiazepine, Muscle Relaxant, Sedative

Indication	Management of generalized seizures. Exerts anticonvulsant, skeletal muscle relaxant and anti-tremor effect.
Administration	IV direct undiluted: 5 mg IV push slowly at a rate of up to 5 mg per minute into a large vein. Can be administered every 5 minutes to a maximum of 20 mg.
Nursing Implications	Watch for respiratory depression.

B. 11 Shock

Clinical presentation	Tachycardia, tachypnea, hypotension Cool, clammy skin, dry mucous membranes Oliguria Agitation, confusion, coma
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- If the patient's condition is related to active bleeding, apply direct pressure to wound. Apply combat application tourniquet as necessary.
- Assess and appropriately manage CAB (circulation, airway and breathing). Suction as needed.
- C-spine precautions if there is a history or suspicion of injury.
- Obtain vital signs (BP/P/RR/T and O₂Sat) and GCS and monitor continuously.
- Administer O₂ at 5 L/min via nasal canula or mask. **Caution use in patients with a history of COPD**
- **Call 911!**
- If systolic BP is less than 90 mmHg, establish IV access with large gauge needle (preferably an 18 gauge):
 - Infuse N/S or R/L 250 mL bolus.
- If BP does not increase:
 - Infuse an additional N/S or R/L 250 mL bolus.
- Contact institutional physician for further IV orders.
- If systolic BP greater than 90 mmHg and a pulse less than 100:
 - Maintain IV infusion at 100 mL per hour.

Patient Disposition

- Transfer to the hospital for evaluation unless otherwise directed by the physician.

Physician Signature:		Date (yyyy-mm-dd):	
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B. 12 Shortness of Breath: Moderate to Severe

Clinical presentation	Moderate Symptoms: Cough, congestion, chest tightness, Dyspnea at rest No improvement with puffers O2Sat less than 90%	Severe Symptoms: Exhaustion, confusion, agitation, diaphoresis Laboured respirations, difficulty speaking, use of accessory muscles, indrawing, tracheal tug Silent chest to auscultation O2Sat less than 90%, tachycardia
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- Assess and appropriately manage CAB (circulation, airway and breathing). Suction as needed.
- Obtain vital signs (BP/P/RR/T and O₂Sat) and monitor continuously.
- Administer O₂ at 5 L/min via nasal canula or mask. ****Caution use in patients with a history of COPD****
- **Call 911!** for all patients that present with severe shortness of breath.
- Elevate head of bed to Semi-Fowler's position to improve ventilation.

For inmates with a past medical history of Asthma or COPD: Assess peak expiratory flow rate.

Moderate shortness of breath: (peak flow greater than 200):

- Administer the following and repeat every 15-20 minutes as necessary to a maximum of 3 doses.
 - Salbutamol 100 mcg (Ventolin) 4 to 8 puffs via an AeroChamber. Use of AeroChamber with mask recommended for patients with significant difficulty on inspiration
- If no response to treatment, contact institutional physician for orders/advice and administer:
 - Prednisone 50 mg P.O.

Severe shortness of breath (peak flow less than 200):

- Administer the following:
 - Salbutamol 100 mcg 1 puff every 30 to 60 seconds via AeroChambers to a maximum of 20 puffs. The use of AeroChamber with mask recommended for patients with significant difficulty on inspiration
 - Ipratropium Bromide (Atrovent) 4-8 puffs through an AeroChamber. May repeat every 15 minutes to a maximum of 3 doses. The use of AeroChamber with mask recommended for patients with significant difficulty on inspiration
- Contact institutional physician for orders/advice.
- Establish IV access and infuse N/S at 30-50 mL per hour. If in Health Care Centre, administer:
 - Methylprednisolone (Solu-Medrol) 80 mg in 50 ml N/S over 15 minutes.

(Continued)

For inmates with a past medical history of Congestive Heart Failure:

- Establish IV access and infuse D5W at 30 to 50 mL per hour and administer:
 - Lasix (furosemide) 40 mg bolus IV (Administer over 2 minutes).
- If systolic BP greater than 140 mmHg, administer:
 - Nitroglycerin 0.4 mg/spray SL every 5 minutes, maximum 3 sprays, PRN.

Nitroglycerin should not be administered if there is a history of use of Sildenafil (Viagra) or Vardenafil (Levitra) within the last 24 hours. In the case of Tadalafil (Cialis), nitroglycerine should not be administered within the last 48 hours

- Perform EKG if available.
- Insert indwelling Foley catheter and monitor intake and output.

Patient Disposition

- Consult with the institutional physician regarding managing the patient on-site or transferring to the community hospital.

Physician Signature:		Date (yyyy-mm-dd):	
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Salbutamol/Ventolin: Bronchodilator

Indication	Bronchospasm associated with asthma. Causes smooth muscle relaxation which results in bronchodilation.
Administration	100 & 200 mcg via metered-dose inhaler (puffer). Onset of action is within 5 minutes and peak action is 60-90 minutes. MDI (puffer) with AeroChamber: Shake well between administrations.
Nursing Implications	Side effects include nervousness and tremors, headache, palpitations, insomnia, nausea, weakness and dizziness.

Ipratropium Bromide (Atrovent)

Indication	Bronchodilator. Causes smooth muscle relaxation which results in bronchodilation.
Administration	MDI (puffer): Prime before initial use by releasing 2 test sprays into air. Onset of action is 15-30 minute and duration of action is ~ 3-4 hours.
Nursing Implications	Monitor for tachycardia and arrhythmia. Side Effects may include headache, eye pain, tachycardia, palpitations, urinary retention, urticaria, nervousness, and tremors.

Solu-Medrol (Methylprednisolone): Glucocorticoid

Indication	Modifies the body's immune response and decreases inflammation.
Administration	IV: Dilute in 50-100 mL of N/S and infuse over 15 minutes. Onset is rapid.
Nursing Implications	Side effects: related to ongoing dosing. Contraindicated: systemic fungal infections, recent myocardial infarction, anticholinesterases.

Prednisone: Corticosteroid

Indication	Modifies the body's immune response and decreases inflammation.
Administration	PO - Onset within 1-2 hours.
Nursing Implications	Side effects: related on ongoing dosing. Caution: with Bupropion, antibiotics "Floxins" (Ciprofloxacin, Norfloxacin), macrolides (Biaxin, Zithromax)

Furosemide/Lasix: Loop Diuretic

Indication	Treatment of congestive heart failure. Decreases re-absorption of sodium and chloride, and increases potassium excretion in the distal renal tubule.
Administration	IV: undiluted, administer SLOWLY over 2 minutes. Onset of action is immediate and diuresis begins within 5 minutes.
Nursing Implications	Caution: Rapid IV infusion of large doses has been associated with tinnitus, reversible or permanent hearing impairment.

Nitroglycerin: Vasodilator

Indication	Chest pain, congestive heart failure. Reduces myocardial oxygen consumption by acting as a vascular smooth-muscle relaxant and vasodilator.
Administration	IN CSC: Nitroglycerine is administered in either a spray (0.4 mg) or sublingual tablet (0.3 mg). Onset is immediate and the duration is 3-5 minutes.
Nursing Implications	Monitor vital signs especially blood pressure! Causes orthostatic hypotension. Side effects may include tachycardia or bradycardia, palpitations, headache, dizziness, weakness, facial flushing, and nausea and/or vomiting

B. 13 Smoke Inhalation

Clinical presentation	<p>O₂Sat less than 90%</p> <p>ALOC, confusion, restlessness, anxiety, and agitation</p> <p>Respiratory distress: wheezes, indrawing, nasal flaring, stridor, hoarseness, coughing, dysphagia (difficulty swallowing)</p> <p>Burns to face and/or neck, blistering and/or edema of the mouth and throat</p>
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- Assess and appropriately manage CAB (circulation, airway and breathing). Suction as needed except if evidence of thermal injury.
- C-spine precautions if there is a history or suspicion of injury.
- Obtain vital signs (BP/P/RR/T and O₂Sat) and monitor continuously.
- Administer O₂ (humidified if available) at 5 L/min via nasal canula or mask. ****Caution use in patients with a history of COPD****
- Thermal injury to mouth, nose and/or throat: **Call 911!** Do not suction!
- Establish IV access and infuse N/S or R/L at 30 to 50 mL per hour.

Evidence of respiratory distress: Call 911!

- Administer the following:
 - Salbutamol 100 mcg 1 puff every 30 to 60 seconds, to a maximum of 20 puffs via AeroChamber. The use of AeroChamber with mask recommended for patients with significant difficulty on inspiration

OR

- Contact institutional physician for orders/advice.

Patient Disposition

- Consult with the institutional physician regarding managing the patient on-site or transferring to the community hospital.

Physician Signature:		Date (yyyy-mm-dd):	
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Salbutamol/Ventolin: Bronchodilator

Indication	Bronchospasm. Causes smooth muscle relaxation which results in bronchodilation.
Administration	. Onset of action is within 5 minutes and peak action is 60-90 minutes.
Nursing Implications	Monitor for tachycardia/arrhythmia. Side effects may include nervousness and tremors, headache, palpitation, insomnia, nausea, weakness and dizziness.

B. 14 Strangulation/Hanging Trauma

Clinical presentation	Abrasions, lacerations, contusions, or edema to the neck Subconjunctival and skin petechiae Pain on palpation of the larynx Respiratory distress, cough, stridor, change in voice Hypoxia ALOC
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- Cut the patient down and remove the ligature. If possible, preserve the knot for evidence.
- C-spine precautions and secure the patient on a firm flat surface (i.e., back board).
- Assess and appropriately manage CAB (circulation, airway and breathing). Suction as needed.
- Obtain vital signs (BP/P/RR/T and O₂Sat), neuro-vital signs and GCS and monitor continuously.
- Administer O₂ at 5 L/ min via nasal canula or mask **Caution use in patients with a history of COPD**

If pulse is absent, Call 911! and ⇒ manage as per CPR/AED Level HCP Certification. And CPR INTERIM PROTOCOL FOR COVID-19

If pulse is present, continue to monitor BP/P/RR/T and O₂Sat, neuro-vital signs and GCS. Contact the institutional physician.

Patient Disposition

- Transfer to the hospital for evaluation unless otherwise directed by the physician.

Physician Signature:		Date (yyyy-mm-dd):	
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B. 15 Stroke: Cerebrovascular Accident (CVA) - Transient Ischemic Attack (TIA)

Clinical presentation	ALOC, confusion Headache, blindness or vision changes Facial drooping/weakness, slurred speech and aphasia Arm weakness, numbness and/or paralysis
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- Assess and appropriately manage CAB (circulation, airway and breathing). Suction as needed.
- Assess vital signs (BP/P/RR/T and O₂Sat) including neuro-vital signs and GCS. Monitor continuously.
- Administer O₂ at 5 L/min via nasal canula or mask.. ****Caution use in patients with a history of COPD****
- If the patient appears to have dysphagia, difficulty clearing secretions or ALOC then:
 - Ensure patient is NPO
 - Remove dentures if present
 - Place patient in semi-Fowler position if tolerated
- **Call 911!**
- Establish IV access and infuse N/S at 30 to 50 mL per hour.
- Note time stroke signs and symptoms were identified.
- Contact the institutional physician.

Patient Disposition

- Transfer to the hospital for evaluation unless otherwise directed by the physician.

Physician Signature:		Date (yyyy-mm-dd):	
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B. 16 Trauma

Clinical presentation	Abdominal Trauma Bruising Hematuria Hypotension Decreased or absent bowel sounds Tenderness on palpation Rebound pain Guarding	Chest Trauma Shortness of breath, decreased breath sounds Hemoptysis Chest wall contusion, open wounds, pain Distended neck veins Tracheal deviation, flail chest Subcutaneous emphysema Respiratory distress Cyanosis, Shock
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- Apply direct pressure to any site of bleeding and/or apply combat application tourniquet. Stabilize any objects still protruding from the wound!
- Assess and appropriately manage CAB (circulation, airway and breathing). Suction as needed.
- C-spine precautions if there is a history or suspicion of injury. Log roll to check anterior/posterior/flanks/axilla.
- Obtain vital signs (BP/P/RR/T and O₂Sat) and monitor continuously. **Call 911!**
- Administer O₂ at 5 L/min via nasal canula or mask. ****Caution use in patients with a history of COPD****
- Cover open sucking chest wounds with an Asherman Chest Seal.
- Cover eviscerated abdominal contents with a saline soaked dressing covered by a dry dressing.
- Establish IV access with a large gauge needle (16 or 18 gauge) and infuse R/L or N/S solution at 150 mL/hour.
 - If systolic BP is less than 90 mmHg, bolus N/S or R/L 250 mL (flow rate wide open).
 - If no response in vital signs (i.e., increasing BP), bolus an additional N/S or R/L 250 mL.
- Contact institutional physician. If unable to reach and no contraindications and systolic BP greater than 100mmHg, if in Health Care Centre consider administering:
 - Morphine 5 mg IM q 30 minutes to a maximum dose of 10 mg

OR

 - Morphine 2 mg IV (diluted) q 15 minutes to a maximum dose of 10 mg.

****Dilute for IV administration: Using a 10 mL syringe, dilute 1 mL of the 10 mg/mL Morphine solution (from vial) with 9 mL N/S. The resulting solution contains 1 mg/mL of Morphine. From this solution, administer 2 mL, which equals Morphine 2 mg****

Patient Disposition

- Transfer to the hospital for evaluation unless otherwise directed by the physician.

Physician Signature:		Date (yyyy-mm-dd):	
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Morphine: Opioid, Analgesic

Indication	Opioid analgesic for the treatment of moderate to severe acute or chronic pain.		
Peak Action	S.C.	IM	IV
	Peak Analgesic Action 50 to 90 minutes	Peak Analgesic Action 30 to 60 minutes	Peak Analgesic Action 20 minutes
	Duration: 3 to 5 hours	Duration: 3 to 5 hours	Duration: 3 to 5 hours
Administration	IM or S.C.: Undiluted	IV direct: Dilute with 10 mL N/S and give over 5 minutes	
Nursing Implications	<p>Oxygen and Naloxone must be available! May cause apnea, respiratory depression.</p> <p>Contraindications:</p> <p>Hypersensitivity to opiates, respiratory depression, pulmonary edema caused by chemical respiratory irritant, status asthmaticus, and upper airway obstruction.</p>		