WRHA Emergency Program
Nurse Initiated Protocol

Suspected Sepsis (age greater than 16 years)

Nurse may initiate all black box items without physician’s order, utilizing best clinical judgement. Clear boxed items require a physician’s order.

For use if patient presents with a Suspected Infection and two of the following criteria are present:

- Temperature greater than 38° Celsius oral
- Temperature less than 36° Celsius oral
- Respiratory Rate greater than 20 breaths per minute or PaCO2 less than 32 mmHg on ABG
- Hyperglycemia/blood glucose greater than 7.7 mmol/L in the absence of diabetes
- White Blood Count (WBC) less than 4 x 10E9/L
- White Blood Count (WBC) greater than 12 x 10E9/L
- Altered mental status
- Significant edema or positive fluid balance greater than 20 millilitres/kilogram over 24 hours.

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- Treat as medical emergency, accessing monitored treatment area and notify physician stat
- Apply oxygen at 3 litres per nasal prongs or as required for saturation greater than 92% (Consult physician if patient has COPD).
- Assess patient for allergies, particularly to antibiotics. If antibiotic allergy stated, note reaction.
- Start intravenous, normal saline at 75 mL/hour and obtain IV orders.
- If systolic blood pressure less than 90 mmHg, bolus one litre of normal saline under pressure and obtain physician orders for additional boluses and maintenance fluids.
- Bolus ________ Normal Saline
- Maintain Normal Saline at ________ mL/hour
- Other: ____________________

- Stat Lab: CBC, INR, PTT, Sodium, Potassium, Chloride, Magnesium, Urea, Creatinine, Blood Sugar, AST, LD, ALT, Alkaline Phosphotase, CK, Lactate
- Blood cultures Stat
- Urine for urinalysis/Culture and Sensitivity
- Site cultures now, including all pre-existing lines (specify sites)

Note: Attempt to collect cultures, but do not allow this to delay antibiotics beyond 30 minutes.

- Piperacillin/Tazobactam 4.5 grams IV STAT times 1 dose now. Note: Antibiotics to be infusing within 30 minutes of order.
  Recommended for all septic patients unless serious allergy to penicillins or cephalosporins; should be administered ahead of other antibiotics if possible
  Consider additional or alternative antibiotic if infection source identified or allergy to Piperacillin/Tazobactam
  1. ____________________
  2. ____________________

- Ensure Vital Signs documented by nurse, and reassessed regularly, at least every 15 minutes
- Chest X-ray, PA and Lateral
- 12 lead Electrocardiogram
- Document Height and Weight
  Height: ________ cm
  Weight: ________ kg
  Estimate: ________
- Consider insertion of foley with urometer if bolusing fluid to ensure adequate output (tissue perfusion)
- Hourly intake and output
- If persistent hypotension with systolic blood pressure less than 90 mmHg, despite adequate volume infusion consider progression to Septic Shock protocol

Physician Printed Name: ____________________

Physician Signature: ____________________

Nurse Printed Name: ____________________

Nurse Signature: ____________________

LEGEND

ABG - arterial blood gas
ALT - alanine transaminase
AST - aspartate transaminase
CBC - complete blood count
CK - creatine kinase
COPD - chronic obstructive pulmonary disease
Eq/L - equivalent/litre
INR - international normalized ratio
IV - intravenous
LD - lactate dehydrogenase
mL - millilitres
mL/kg - millilitres/kilogram
mmHg - millimeters of mercury
mmol/L - millimoles/litre
PA - posterior
PTT - partial thromboplastin time

FORM # XXXXX  Revised January 2012
Chart Divider Section #3 – White
For Physician Completion Proceeding to the WRHA Emergency Program Clinical Management of Sepsis and Septic Shock - Septic Shock Protocol indicates the patient is in septic shock. All of the following criteria must be met for diagnosis of septic shock.

Criteria for Septic Shock (please check all that apply. All elements required for septic shock diagnosis):

1. ☐ Documented or suspected infection, specify suspected site(s).

___________________________________________________________________________________________________________________________________________________________________________________

2. ☐ Persistent/recurrent hypotension (not resolved with 500 - 1000 millilitres saline or equivalent over 15 - 30 minutes). Hypotension is a systolic blood pressure (SBP) less than or equal to 90 mmHg, a mean arterial pressure (MAP) less than or equal to 70 mmHg, or a drop in systolic blood pressure (SBP) of 40 mmHg.

Time/date first documentation of hypotension ____________________________________________________________________________

3. ☐ No clear alternate explanation for hypotension.

Physician Printed Name: ____________________________________________________________

Physician Signature: _________________________________ Date: [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] Time: [ ] [ ] [ ] [ ] [ ] [ ] [ ] 24 HOUR

- Broad spectrum antimicrobial therapy must be started within 30 minutes of the onset of hypotension (or diagnosis of septic shock). Required cultures should always be drawn before antimicrobial administration. However, antimicrobial administration is the priority: therefore inability to obtain cultures must not delay antimicrobial (i.e. antibiotic) therapy.

- Broad spectrum therapy should be closely assessed for de-escalation no later than 48 - 72 hours after initiation, assuming isolation of a pathogen or clinical improvement.

- For serious penicillin/cephalosporin allergies (anaphylaxis, urticaria, angioneurotic edema), substitute Levofoxacin, Vancomycin, and either Clindamycin or Metronidazole.

- Nosocomial septic shock in patients who have had prolonged courses of therapy with piperacillin/tazobactam should be treated with Meropenem in place of Piperacillin/Tazobactam in the initial empiric regimen.

The Bundle of Interventions for Initial Treatment of Septic Shock includes:

- Serum Lactate Measured
- Blood Cultures Obtained Prior to Antibiotic Administration
- Broad-Spectrum Antibiotics within one hour
- Treat Hypotension and/or Elevated Lactate with Fluids
- Use Vasopressors for Ongoing Hypotension
- Maintain Adequate Central Venous Pressure
- Maintain Adequate Central Venous Oxygen Saturation