Deletions

1. Polysporin® (polymyxin B /bacitracin) ophthalmic ointment
   • Discontinued by manufacturer
   • Alternative: Polysporin® ophthalmic drops

2. Diophenyl®T (phenylephrine/tropicamide) ophthalmic drops
   • Discontinued by manufacturer

3. Pyrimethamine tablets (Daraprim®)
   • Discontinued by manufacturer

BCHA Restriction Changes

1. Meperidine injection (Demerol®)
   • Restricted to treatment of drug- or blood product-induced rigors and post-operative shivering
   • Non-formulary for use as an opioid analgesic

2. Posaconazole suspension (Posanrol®)
   • Antifungal agent
   • Restricted to ID and L/BMT services for prophylaxis and treatment of invasive fungal infections in patients 13 years or older

Additions

1. Fosfomycin 3g powder (Monurol®)
   • Antibiotic restricted to treatment of acute uncomplicated cystitis caused by susceptible organisms with demonstrated resistance and/or intolerance to all other oral agents

2. Rasburicase 1.5 mg vial (Fasturtec®)
   • Urate-oxidase enzyme, which converts uric acid to allantoin (an inactive and soluble metabolite of uric acid)
   • Restricted to high risk of or acute treatment of tumour lysis syndrome, when other therapeutic options are not suitable

3. Paliperidone long-acting tablets (Invega®)
   • Second generation antipsychotic agent restricted to patients intolerant to other antipsychotic agents

4. Arsenic Trioxide 1 mg vial (Trisenox®)
   • Antineoplastic agent
   • Restricted to indications outlined in the BCCA Benefit Drug List AND to patients who are registered with BCCA
Changes to Formulary

1. HEPARIN INFUSION PROTOCOLS MODIFICATIONS

i) Monitoring revisions (to begin Dec 11, 2014)
Per request by Hematology and approved by the Pharmacy and Therapeutics Committee to improve patient safety when using heparin protocols, nurses will be directed to call the prescriber if 2 consecutive PTTs are above the highest and lowest PTT in the adjustment table for both the standard target and lower target heparin protocols. This is a change from the previous protocols requesting that nurses contact the prescriber after 3 consecutive PTTs above the highest and lowest PTT.

For surgical patients only, nurses are now instructed to call the prescriber when ANY PTT is above the highest value listed on the adjustment table (ie. 90 seconds for lower target protocol and 110 seconds for standard target protocol). A surgical patient is defined as “a patient on any unit who has had surgery within the past 2 weeks”.

Additionally, when the PTT is within target range, PTT must be checked Q6H until 2 consecutive PTTs are therapeutic, then rechecked once daily. The adjustment table has been modified to combine “Rate Change” and “PTT Monitoring” into one column: “RN Action - Rate Change and PTT Monitoring.”

See example of the revised HEPARIN STANDARD TARGET PROTOCOL on page 3 (Figure 1).

ii) Other changes (to begin Dec 11, 2014)

a. Prescriber is to specify if patient weight is an “actual” or “estimate”
b. Nurse is to contact prescriber if baseline PTT is elevated
c. Medications that require discontinuation while receiving the heparin infusion protocol include the new oral anticoagulants (rivaroxaban, dabigatran, apixaban), in addition to low molecular weight heparins (e.g. dalteparin, enoxaparin)
d. Initiation of warfarin therapy is no longer included on the heparin standardized protocol; warfarin should be ordered on a separate Prescriber’s Order sheet.
e. Back page of heparin protocols has been updated with information previously contained in the Clinical Practice Document: Monitoring and Titration of Infusions, Assessment of Out-of-Range PTTs, and Heparin-Induced Thrombocytopenia.

2. Reserved Antimicrobial Drugs Pre-Printed Order (RAD PPO)

Background
Since 2013, BC Health Authorities Pharmacy and Therapeutics Committee (BCHA P&T) has established a provincial drug formulary with restricted criteria for the prescription of target Reserved Antimicrobial Drugs (RADs). The rationale for these restrictions is to:
• Promote appropriate antibiotic use; and
• Prevent emergence and spread of multi-drug resistant organisms.

What is the Reserved Antimicrobial Drugs Pre-printed Order?
As a quality assurance measure, VCH Quality and Patient Safety, Pharmacy and ASPIRES (VCH Antimicrobial Stewardship Programme) have developed a Reserved Antimicrobial Drugs PPO (RAD PPO) for target antibiotics at VGH (see Figure 2, p 4). The purpose of the RAD PPO is to:
• Facilitate prescribing of ceftAZIDime, daptomycin, linezolid PO/IV, meropenem (or formulary carbapenem), and/or tigecycline in accordance with the provincial mandate established by the BCHA P&T;
• Educate clinicians on the restriction criteria;
• Prompt clinicians to consider narrower spectrum agents prior to using these broader spectrum and more costly options; and
• Evaluate appropriate use of these agents

What are the Procedures for Prescribers?
Starting on Monday Jan 12, 2015, all prescribers are required to complete RAD PPO #911 for ceftAZIDime, daptomycin, linezolid PO/IV, meropenem, and/or tigecycline (except if the RAD is on another pre-existing PPO).

1. On the RAD PPO #911, the prescriber must:
   • Specify site of infection, pathogen (if known), indication, and duration of therapy.
   • All RADs have a 3-day automatic stop-date (unless otherwise indicated).
   • If prescribing RAD outside of approved indications, please consult Infectious Diseases or other specialty service

2. If RAD is ordered without RAD PPO (i.e. on a regular Prescriber’s Order form):
   • Pharmacy will send RAD PPO #911 to nursing unit for placement on front of the chart, and a supply of drug will be sent.
   • The prescriber is to complete the RAD PPO, for relaying back to Pharmacy

3. Reorders for RADs may be written on a general Prescriber’s Order form.
**Figure 1. Heparin Standard Target Protocol**

**IF YOU RECEIVED THIS FACSIMILE IN ERROR, PLEASE CALL 604-875-4077 IMMEDIATELY**

**Vancouver Coastal Health**  
VA: VGH / UBCH / GFS  
VC: BP / Purdy / GPC

**ORDERS**  
**ADDRESSOGRAPH**  
**COMPLETE OR REVIEW ALLERGY STATUS PRIOR TO WRITING ORDERS**

**HEPARIN STANDARD TARGET PROTOCOL**  
(items with check boxes must be selected to be ordered)  
(Please refer to 15. Drug and Therapeutics Newsletter for reference)

**Date:** ______________  
**Time:** ______________

**Patient weight:** ______________ kg  
☐ Actual  
☐ Estimate

* If patient on epidural infusion, page POP5 STAT - do not start heparin without POP5 approval*

**LABORATORY:**  
Baseline PTT, INR and CBC with platelet count (contact prescriber if baseline PTT is elevated)  
CBC with platelet count on day 1, then Q2days while on heparin

**MEDICATIONS:**  
Discontinue previous heparin, low molecular weight heparin, rivaroxaban, dabigatran, apixaban orders  
No intramuscular injections.  
If possible, avoid non-steroidal anti-inflammatory drugs (NSAIDs).

**INITIATE HEPARIN THERAPY**

heparin IV bolus direct, then start initial infusion as below:

<table>
<thead>
<tr>
<th>Patient Wt (Kg)</th>
<th>Heparin IV Bolus (units) (use heparin 1000 units/mL vial)</th>
<th>Initial Infusion (heparin 25,000 units in 500 mL = 50 units/mL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ less than or equal to 50</td>
<td>4,000 = 4 mL</td>
<td>750 units/hour = 15 mL/hour</td>
</tr>
<tr>
<td>☐ 51 to 60</td>
<td>5,000 = 5 mL</td>
<td>1,000 units/hour = 20 mL/hour</td>
</tr>
<tr>
<td>☐ 61 to 70</td>
<td>6,000 = 6 mL</td>
<td>1,100 units/hour = 22 mL/hour</td>
</tr>
<tr>
<td>☐ 71 to 90</td>
<td>7,000 = 7 mL</td>
<td>1,300 units/hour = 26 mL/hour</td>
</tr>
<tr>
<td>☐ 91 to 105</td>
<td>8,000 = 8 mL</td>
<td>1,450 units/hour = 29 mL/hour</td>
</tr>
<tr>
<td>☐ greater than 105</td>
<td>9,000 = 9 mL</td>
<td>1,650 units/hour = 33 mL/hour</td>
</tr>
</tbody>
</table>

**PTT-ADJUSTED HEPARIN THERAPY**

Measure PTT 6 hours after starting heparin, then adjust infusion rate and repeat PTT based on sliding scale below:

<table>
<thead>
<tr>
<th>PTT (sec)</th>
<th>BOLUS DOSE IV</th>
<th>STOP INFUSION</th>
<th>RN ACTION</th>
<th>RATE CHANGE (50 units/mL) and PTT MONITORING‡</th>
</tr>
</thead>
</table>
| Less than 50 | 5,000 | 0 | • Increase by 3 mL/hour (increase by 150 units/hour)  
• Repeat PTT in 6 hours  
• * Call MD if 2 consecutive PTTs less than 50 sec* |
| 50 to 59 | 0 | 0 | • Increase by 2 mL/hour (increase by 100 units/hour)  
• Repeat PTT in 6 hours |
| 60 to 90 (Therapeutic) | 0 | 0 | • No change in infusion rate  
• Repeat PTT Q6H until 2 consecutive PTTs are within therapeutic range, then monitor PTT once daily |
| 91 to 100 | 0 | 0 | • Decrease by 1 mL/hour (decrease by 50 units/hour)  
• Repeat PTT in 6 hours |
| 101 to 110 | 0 | 30 MIN | • Decrease by 2 mL/hour (decrease by 100 units/hour)  
• Repeat PTT in 6 hours |
| Greater than 110 | 0 | 60 MIN | • Decrease by 4 mL/hour (decrease by 200 units/hour)  
• Repeat PTT in 6 hours  
• * Call MD if 2 consecutive PTTs greater than 110 sec*  
• * For Surgical Patients, call MD if any PTT greater than 110 sec * |

‡Specify on lab requisition “STAT PTT”, draw PTT 6 hours after start of any rate change.

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**Prescriber’s Signature**

**Printed Name**  
**College ID**

*HSPVGH*  
VCH.VA.PPO.20  
Rev.DECEMBER 2014
**Figure 2. Reserved Antimicrobial Drugs (RAD) Orders—Target Antibiotics Pre-Printed Order**

**Reserved Antimicrobial Drugs (RAD):**
- Target RAD listed on an existing pre-printed order "OR" when re-ordering a RAD

**Instructions:**
- Completion of this form is mandatory when prescribing Target Reserved Antimicrobial Drugs (RAD).
- Exceptions: target RAD listed on an existing pre-printed order "OR" when re-ordering a RAD

--- NOTE: IF DURATION IS NOT SPECIFIED, ANTI-INFECTIVE WILL STOP IN 3 DAYS. ---

**Reserved Antimicrobial Drugs (RAD) Orders—Target Antibiotics**

*Items with check boxes must be selected to be ordered*

**Patient weight:** _______ kg  
**Serum creatinine:** _______ umol/L  
**Site:** _______  
**Pathogen(s) (if known):** _______

**Target RADs (For dose adjustments based on renal function, consult Pharmacy or see back of form):**

- **CeftAZIDime**
  - 1 g IV Q8H
  - 2 g IV Q8H  
- **Daptomycin**
  - Restricted to ID and ICU: ☐ Approved by ID or ICU
  - 4 mg/kg = _______ mg IV Q24H  
- **Linezolid PO/IV**
  - 600 mg PO BID  
- **Meropenem**
  - 500 mg IV Q6H  
- **Tigecycline**
  - Restricted to ID and ICU: ☐ Approved by ID or ICU

**Indication:**
- Suspected/documented *Pseudomonas* infection
- Febrile neutropenia
- Suspected/documented Gram-positive infections resistant to vancomycin and linezolid
- Patient intolerant to vancomycin and linezolid
- Other indication:

**Check Indication:**
- *AND*
  - Gram-positive infection resistant to vancomycin
  - Patient intolerant to vancomycin
  - VRF infection
  - Other indication:

**Criteria for IV use:**
- Intolerant to oral linezolid
- Unable to absorb oral linezolid
- Other:

**Prescriber’s Signature:**
xxxxxx  
**Printed Name:**
VCH.VA.PPO.911  
**Rev. MAY.2014**