

## Inside this Issue...

### Additions to Formulary

Sugammadex, *Bridion*<sup>TM</sup>  
Lacosamide, *Vimpat*<sup>®</sup>  
Darunavir/ cobicistat, *Prezcobix*<sup>®</sup>  
Ceftolozane/ tazobactam, *Zerbaxa*<sup>®</sup>

### Expanded Restrictions

Apixaban, *Eliquis*<sup>®</sup>

### Therapeutic Interchange

*Vitalux*<sup>®</sup>  
Dalteparin Prefilled Syringe, *Fragmin*<sup>®</sup> revision

### Removal from Formulary

Quinupristin/ dalfopristin, *Synercid*<sup>TM</sup>  
Ticarcillin/ clavulanic acid, *Timentin*<sup>®</sup>

### New Guidelines

Pembrolizumab, *Keytruda*<sup>®</sup>  
Nivolumab, *Opdivo*<sup>®</sup>  
Nab-paclitaxel, *Abraxane*<sup>®</sup>  
Idelalisib, *Zydelig*<sup>®</sup>

### Revised Guidelines

Bendamustine, *Treanda*<sup>®</sup>

### Medication Policies

### Pre-Printed Orders

### IV Manual

### Other – NSHA Provincial Hospital Formulary

## Issue # 64: Oct. 24, 2017

requires a second anticholinergic drug to be administered (typically glycopyrrolate) to mitigate its cholinergic adverse effects.

Sugammadex rapidly reverses the effect of rocuronium by forming a tight 1:1 complex and encapsulating the drug in plasma; therefore, the amount of NMBA available to bind nicotinic receptors in the neuromuscular junction is reduced. Due to its unique mechanism of action, sugammadex offers potential advantages over existing alternatives including rapidly and predictably reversing NMB and decreasing the risk of residual muscle weakness following surgery. Additionally, sugammadex exerts no effects at nicotinic receptors; therefore, avoiding the cholinergic adverse effects seen with acetylcholinesterase inhibitors.

Based on the best available comparative evidence, use of sugammadex results in faster time to reversal of NMB, shorter time to extubation, decreased likelihood of postoperative residual paralysis and rapid reversal of profound NMB in emergency situations. Sugammadex appears to be generally well tolerated and may reduce the risk of drug related adverse events compared to neostigmine. However, since sugammadex is expensive, the advantages must be weighed against the lower cost of existing alternatives.

### Approved Restriction:

Reversal of rocuronium for:

- Rapid reversal of profound neuromuscular blockade in emergency situations (e.g., cannot intubate/ ventilate).
- Short surgical cases when succinylcholine is contraindicated.
- Patients at increased risk of complications with any degree of residual neuromuscular blockade (e.g., morbid obesity).

### Lacosamide, *Vimpat*<sup>®</sup>

Lacosamide is an antiepileptic agent that selectively enhances slow inactivation of voltage-gated sodium channels, resulting in reduced hyperexcitability of neuronal membranes and inhibition of repetitive neuronal firing. Oral lacosamide was approved by Health Canada in October 2010, as an adjunctive therapy in the management of partial-onset seizure in adult patients with epilepsy who are not satisfactorily controlled with conventional therapy. Based on the Canadian Expert Drug Advisory Council (CEDAC) recommendation, oral lacosamide is listed as a benefit on the NS Provincial Drug Plan Formulary with restriction criteria.

The following policies were approved by the Medical Advisory Committee (Jan17, Jun17, Sep17) on the recommendation of the Drugs and Therapeutics Committee (Dec16, Feb17, Mar17, May17, Jun17, Jul17, Sep17).

## I. Additions to Formulary

### Sugammadex, *Bridion*<sup>TM</sup>

Sugammadex is a modified gamma cyclodextrin approved for the reversal of moderate to deep neuromuscular blockade (NMB) induced by rocuronium or vecuronium in adults undergoing surgery. Rocuronium and vecuronium are non-depolarizing neuromuscular blocking agents (NMBAs); however, vecuronium is currently not available in Canada.

NMBAs are used peri-operatively to facilitate endotracheal intubation, to allow surgical exposure and for prolonged muscle relaxation in the critical care setting. Reversal of NMB is required following surgery when these effects are no longer needed and may be achieved through spontaneous recovery or may require the use of pharmacological reversal agents. The non-depolarizing NMBAs require acetylcholinesterase inhibitors to pharmacologically reverse their effects and neostigmine is commonly used. Due to its mechanism of action, neostigmine

Lacosamide IV was approved by Health Canada in September 2011 as an alternative for partial-onset seizures for instances when oral lacosamide administration is temporarily not feasible. Lacosamide IV has been studied in status epilepticus as a second or third line agent, after failure of conventional agents (first line benzodiazepines, second line conventional anti-epileptics). There are a small number of retrospective studies, case reports, case series, and prospective observational studies in the literature. The cost of lacosamide IV is comparable to conventional agents.

**Approved Restriction:**

Lacosamide oral:

Adjunctive treatment for patients with refractory partial-onset seizures who meet all of the following criteria:

- are under the care of a physician experienced in the treatment of epilepsy, and
- are currently receiving two or more antiepileptic drugs, and
- in whom all other antiepileptic drugs are ineffective or not appropriate

Lacosamide IV:

- Second line for management of seizures after consultation with a neurologist;  
or
- Partial-onset seizures in patients maintained on oral lacosamide when oral administration is temporarily not feasible.

**Darunavir/ cobicistat, Prezco**bi**x®**

A new fixed-dose antiretroviral combination product, Prezco**bi**x® (darunavir 800mg + cobicistat 150 mg), is indicated and recommended in combination with other antiretroviral agents as a first-line option for the treatment of HIV infection. The Nova Scotia Department of Health and Wellness has approved the addition of Prezco**bi**x® to the high cost drug program. Prezco**bi**x® has been added to the NSHA Hospital Formulary for continuation of home therapy to align with the provincial high cost drug program and best practices for treatment of chronic HIV infection.

**Ceftolozane/ tazobactam, Zerbaxa®**

Ceftolozane/ tazobactam (Zerbaxa®) is a recently developed IV antimicrobial agent that is available as a 2:1 fixed-dose combination of ceftolozane (a novel cephalosporin) and tazobactam (a beta-lactamase inhibitor). It is active against many clinically relevant Gram-positive and Gram-negative organisms, including resistant strains. It has demonstrated particular activity against *Pseudomonas aeruginosa* but has diminished activity against *Staphylococcus aureus* and little to no activity against *Enterococcus faecalis* and *Enterococcus faecium* as the latter are inherently resistant to cephalosporin antibiotics. Its activity against drug-resistant Gram-negative organisms is due to the lack of susceptibility to common mechanisms of resistance including production of  $\beta$ -lactamases, porin loss and efflux pumps.

Two double-blind, multicenter, non-inferiority, phase III randomized controlled trials (RCTs) evaluated the efficacy of ceftolozane/ tazobactam for the treatment of bacterial infections in hospitalized adult patients. The ASPECT-clAI demonstrated that ceftolozane/ tazobactam plus metronidazole was non-inferior to IV meropenem for the treatment of complicated intra-abdominal infections. The ASPECT-cUTI demonstrated that ceftolozane/ tazobactam monotherapy was statistically non-inferior and superior to IV levofloxacin for the treatment of complicated urinary tract infections including pyelonephritis. The safety profile of ceftolozane/ tazobactam was similar to that of the comparators. The most commonly reported adverse effects that occurred in >1% of the patient population were headache, pyrexia, nausea, constipation and diarrhea (5-8%).

Ceftolozane/ tazobactam is significantly more expensive than its comparators; however, it offers an alternative for multidrug-resistant gram-negative bacterial infections when there are no alternatives or alternatives are not an option due to contraindications, allergy or intolerance.

**Approved Restriction:**

On the recommendation of the Division of Infectious Diseases for infections caused by multidrug-resistant Gram-negative bacteria, specifically ESBL-producing Enterobacteriaceae and multidrug-resistant *P. aeruginosa* when other treatment alternatives are not an option.

## II. Expanded Restrictions

**Apixaban, Eliquis®**

Apixaban (a factor Xa inhibitor) is Formulary restricted to at risk patients with non-valvular atrial fibrillation (AF) for the prevention of stroke and systemic embolism. The NS Provincial Drug Plan Formulary has expanded the apixaban restriction criteria to include use up to 6 months for venous thromboembolic event (VTE) treatment. Apixaban is one of four direct oral anticoagulant (DOAC) medications available on the Canadian market all of which are approved for use in VTE treatment and prevention of recurrent VTE.

Traditionally, acute VTE has been treated with heparin or low molecular weight heparins (LMWHs) with bridging to warfarin therapy. For appropriate patients, DOACs have been used preferentially over traditional therapy because of the fixed dosing regimen that does not require the frequent blood work monitoring and dose adjustments that the traditional therapy warrants.

The 2016 CHEST Guidelines for Antithrombotic Therapy for VTE Disease recommend the DOACs over warfarin or LMWHs for VTE treatment (no cancer) and apixaban is the only DOAC recommended in these guidelines for patients with dyspepsia or history of GI bleed. The AMPLIFY trial showed non inferiority for recurrent symptomatic VTE or VTE related death between apixaban compared to enoxaparin followed by warfarin and superiority for apixaban in the primary safety outcome of major bleeding. The AMPLIFY-EXT trial compared two doses of apixaban to placebo in patients that had previously completed 6

to 12 months of anticoagulant therapy and showed lower rates of recurrent VTE and all-cause mortality but higher bleeding rates for both apixaban doses compared to placebo.

**Approved Restriction:**

For the treatment of deep vein thrombosis (DVT) or pulmonary embolism (PE) for a duration of up to 6 months.

<b>Ordered as: Dalteparin Dose (units)</b>	<b>Will be dispensed as: Dalteparin Prefilled Syringe Dose (units) (Syringes dispensed)</b>
6,400 – 8,600*	7,500 (1 x 7,500)
8,601 – 11,200	10,000 (1 x 10,000)
11,201 – 13,600	12,500 (1 x 12,500)
13,601 – 16,400	15,000 (1 x 15,000)
16,401 – 19,000	18,000 (1 x 18,000)
19,001 – 21,200	20,000 (2 x 10,000)
21,201 – 23,600	22,500 (1 x 10,000 + 1 x 12,500)
23,601 – 26,200	25,000 (2 x 12,500)
26,201 – 27,600	27,500 (1 x 12,500 + 1 x 15,000 )
<b>27,601 – 30,600</b>	30,000 (2 x 15,000)
<b>30,601 - 33,600</b>	<b>33,000</b> (1 x 15,000 + 1 x 18,000)
<b>33,601 – 36,600</b>	<b>36,000</b> (2 x 18,000)
<b>36,601 - 38,000*</b>	38,000 (1 x 18,000 + 2 x 10,000)

\*Contact the prescriber for treatment doses < 6,400 units or > 38,000 units

### III. Therapeutic Interchange

**Vitalux®**

The Formulary currently lists Vitalux AREDS as the ocular nutritional supplement to delay the progression of age-related macular degeneration (AMD); however, it has been discontinued by the manufacturer. Vitalux Advanced is a similar formulation with the removal of beta-carotene (shown to increase the risk of lung cancer) and the addition of lutein. In the AREDS2 (age-related eye disease study 2), supplementation with lutein and zeaxanthin without beta-carotene produced comparable results to the original AREDS trial for the delay of progression to advanced AMD.

To control costs, orders for any nutritional supplement for AMD will be dispensed as Vitalux Advanced. Orders for Vitalux Advanced Plus will be dispensed as Vitalux Advanced with the contract brand multivitamins and minerals product. Patients who prefer to use a different brand may use their own supply.

<b>Preparation:</b>	<b>Dispensed As:</b>
Multivitamin and minerals, ocular (any nutritional supplement specifically for age-related macular degeneration) any dose	Vitalux Advanced, 2 caplets daily
Multivitamin and minerals, ocular (any nutritional supplement specifically for age-related macular degeneration) PLUS full multivitamin and minerals (e.g., Vitalux Advanced Plus) any dose	Vitalux Advanced, 2 caplets daily AND multivitamins and minerals contract brand, 1 tablet daily

**Dalteparin Prefilled Syringe, *Fragmin*® REVISION**

There has been a revision to the dalteparin prefilled syringe therapeutic interchange. To reduce the number of syringes required for certain doses, the dose banding has been adjusted for the four highest doses.

### IV. Removal from Formulary

**Quinupristin/ dalfopristin, *Synercid*™**

Quinupristin/ dalfopristin is currently Formulary restricted to the Division of Infectious Diseases for the treatment of serious resistant infections caused by vancomycin-resistant *Enterococcus faecium* (VREF) and other vancomycin-resistant organisms. Since the addition of quinupristin/ dalfopristin to Formulary, additional antibacterial agents have been introduced to the market. Daptomycin and linezolid are utilized as alternatives for those with resistant gram-positive bacterial infections.

Pharmacy does not currently stock quinupristin/ dalfopristin and there has been no usage in four years; therefore, it has been removed from the Formulary.

## **Ticarcillin/ clavulanic acid, *Timentin*®**

Ticarcillin/ clavulanic acid was Formulary restricted to the Division of Infectious Diseases for the treatment of *Stenotrophomonas maltophilia* when the use of other agents was not appropriate because of resistance, intolerance or allergies. Ticarcillin/ clavulanic is no longer available in Canada and there is no plan for future manufacturing; therefore, ticarcillin/ clavulanic acid has been removed from the NSHA formulary.

## **V. New Guidelines**

### **Pembrolizumab, *Keytruda*®**

#### **Approved Restriction:**

As a single agent treatment option for patients with advanced melanoma (unresectable or metastatic melanoma) for the following indications:

- Ipilimumab Naïve - patients who are naïve to ipilimumab treatment (patients with BRAF mutation positive may or may not have received BRAF targeted therapy)  
or
- Progression Post Ipilimumab (legacy patients only\*) – Patients who have failed ipilimumab and if BRAF mutation positive have also failed BRAF mutation therapy.  
(\*pertains to eligible patients prior to funding of pembrolizumab)

Patients in either setting should have an ECOG PS 0 or 1 and if present stable brain metastases.

Treatment duration in either patient population can continue for 24 months or until disease progression, whichever comes first.

Sequencing of anti-CTLA-4 immunotherapy agents (e.g., ipilimumab) post PD-1 inhibitors is not funded.

### **Nivolumab, *Opdivo*®**

Three new Guidelines have been approved for nivolumab.

A new Guideline for the role of nivolumab in advanced/metastatic non-small cell lung cancer (NSCLC) has been approved by the Drugs and Therapeutics Committee.

#### **Approved Restriction:**

As a single agent treatment option for patients with advanced or metastatic NSCLC with disease progression on or after cytotoxic chemotherapy for advanced disease. Patients should have a good performance status.

Treatment duration should continue until unacceptable toxicity or disease progression.

Clinical Notes:

- Eligible patients (irrespective of histology) may receive nivolumab or pembrolizumab for this indication but not the sequential use of these agents.

A new Guideline for the role of nivolumab for metastatic melanoma has been approved by the Drugs and Therapeutics Committee.

#### **Approved Restriction:**

As a single agent treatment option for patients with advanced melanoma (unresectable or metastatic BRAF wild type) who are previously untreated. Patients should have a good performance status and if present stable brain metastases.

Treatment duration should continue until unacceptable toxicity or disease progression.

Clinical Notes:

- Sequencing of anti-CTLA-4 immunotherapy agents (e.g., ipilimumab) post PD-1 inhibitors is not funded.
- Eligible patients may receive nivolumab, pembrolizumab or ipilimumab for this indication but not the sequential use of these agents.

A new Guideline for the role of nivolumab for metastatic renal cell carcinoma (RCC) has been approved by the Drugs and Therapeutics Committee.

#### **Approved Restriction:**

As a single agent treatment option for patients with advanced or metastatic RCC with disease progression after at least one prior anti-angiogenic systemic treatment.

Patients should have a good performance status.

Treatment duration should continue until unacceptable toxicity or disease progression.

Clinical Notes:

- Sequential use of nivolumab and everolimus in the second or third line setting will not be funded in the case of disease progression.
- Nivolumab in the second or third line setting will be considered for funding due to intolerance or a contraindication to VEGF TKI therapy or everolimus.
- Everolimus will be considered for funding in the case of nivolumab intolerance.

### **Nab-paclitaxel, *Abraxane*®**

#### **Approved Restriction:**

In combination with gemcitabine as first line treatment of patients with locally advanced unresectable or metastatic adenocarcinoma of the pancreas with ECOG performance status (PS) of 0-2.

### **Idelalisib, *Zydelig*®**

#### **Approved Restriction:**

In combination with rituximab for patients with relapsed chronic lymphocytic leukemia (CLL) or small lymphocytic leukemia (SLL). Treatment should continue until unacceptable toxicity or disease progression.

Clinical Notes:

- Idelalisib is not funded as a sequential treatment option for patients who have progressed on ibrutinib therapy. (Only one treatment option will be funded)
- Patients who have experienced intolerance but not disease progression to ibrutinib in the relapsed setting may switch to idelalisib.
- Chemotherapy in combination with anti-CD20 therapy is not funded after idelalisib failure.

## VI. Revised Guidelines

### Bendamustine, *Treanda*®

#### Approved Restriction:

In combination with rituximab as a first line therapy for patients with chronic lymphocytic leukemia (CLL) or small lymphocytic leukemia (SLL) with WHO performance status (PS) ≤ 2 not medically fit to tolerate fludarabine based regimens.

## VII. Medication Policies

The following policies have been approved by the Medical Advisory Committee on the recommendation of the Drugs and Therapeutics Committee. These policies will be added to the Medication Policy and Procedure Manual.

MM SR-010	High Alert Medications
MM SR-005	“Do Not Use” Abbreviations, Symbols and Dose Designation
MM SR-015	Telephone/Verbal Orders (Pharmacological and Non-pharmacological)
MM MA-005	Medication Independent Double Checks
MM MA-010	Smart Infusion Pumps
MM-SR-025	Pharmacist Initiated IV to PO Conversion of Antimicrobials
MM-SR-020	Transcribing Medication Orders
MM-MA-020	Self Administration of Medication
CL-SR-020	Venous Thromboembolism (VTE) Prophylaxis
MM-SR-030	Medication Reconciliation

## VIII. Pre-Printed Orders

The following pre-printed orders have been approved by the Medical Advisory Committee on the recommendation of the Drugs and Therapeutics Committee.

PPO 0113	IRINotecan/Fluorouracil/Leucovorin (FOLFIRI) – Metastatic GI Regimen
PPO 0115	OXALiplatin/Fluorouracil/Leucovorin (FOLFOX) – Metastatic GI Regimen
PPO 0173	OXALiplatin/Fluorouracil/Leucovorin (FOLFOX) – Adjuvant GI Regimen
PPO 0385	Peritoneal Dialysis Repositioning Protocol
PPO 0394	Management of Confirmed Pathogen Peritonitis
PPO 0395	Empiric Management of Peritonitis
PPO 0472	Pre-operative Pacemaker/Device Implant
PPO 0473	Post Pacemaker/Device Implant – Cardiac Catheterization Lab/OR Implants - PACU
PPO 0559	Discharge Prescription – Post Pacemaker/Device Implant
PPO 0561	Impella CP Device – Post Insertion
PPO 0562	Impella CP Device – Weaning and Removal
PPO 0563	Bevacizumab – Gynaecology Regimen

PPO 0565	Hyperbaric Therapy Management
PPO 0566	Post-Anesthesia Care Unit (PACU) Anesthesiology Orders
PPO 0571	Infliximab – Crohn’s Disease
PPO 0572	Eribulin: Metastatic Breast Cancer
PPO 0008	Targeted Temperature Management – Therapeutic Hypothermia
PPO 0019	Alteplase Therapy in Acute Ischemic Stroke
PPO 0080	Admission Orders – Hematology Inpatient Service
PPO 0139	Adult Severe Hypoglycemia
PPO 0194	Urology Admission Orders
PPO 0257	Circuit Clotting Anticoagulant Protocol – Haemodialysis Patients with Heparin Induced Thrombocytopenia History
PPO 0308	Vancomycin Protocol Hemodialysis Unit
PPO 0355	Blood Collection – Blood and Bone Marrow Transplant Program
PPO 0400	Anticoagulation Management of Pre/Post Radiology Intervention
PPO 0439	Admission Orders, Intensive Treatment Services
PPO 0548	Inpatient Retina Post-operative Orders
PPO 0549	Outpatient Retina Post-operative Orders
PPO 0550	Intro-Ocular Outpatient Surgery
PPO 0557	Obinutuzumab and Chlorambucil – Chronic Lymphocytic Leukemia or small lymphocytic lymphoma – Cycle 1
PPO 0558	Obinutuzumab and Chlorambucil – Chronic Lymphocytic Leukemia or small lymphocytic lymphoma – Cycle 2 to 6
PPO 0570	Amiodarone IV Infusion in Intensive Care
PPO 0575	Thoracic Surgery Admission Orders
PPO 0579	Hiatus Hernia Post Op Orders
PPO 0580	Fulminant Liver Failure – Transplant Work-up
PPO 0581	Lung Surgery Post-operative Orders
PPO 0583	Cinacalcet in a Dialysis Patient – Renal Pharmacist Management
PPO 0584	Outpatient Cardioversion
PPO 0005	Stroke - Admission Orders
PPO 0299	Pre-Cardiac Catheterization/Percutaneous Coronary Intervention (PCI)/ Electrophysiology (EP) Orders
PPO 0344	Prophylaxis of Contrast Nephropathy
PPO 0459	Admission Orders – 24 hour Transfer Patient and Cardiac Day Unit
PPO 0576	Patient Management after Percutaneous Procedure – Interventional Radiology
PPO 0577	Patient Management Prior to Percutaneous procedure – Interventional Radiology
PPO 0587	Intravenous Epoprostenol Initiation – Pulmonary A arterial Hypertension
PPO 0009	Management of Hypophosphatemia
PPO 0522	Blood Borne Disease Exposure

- PPO 0568 Vascular Surgery Admission Orders
- PPO 0579 Hiatus Hernia – Post Operative Orders
- PPO 0582 Esophageal Surgery - Post Operative Orders
- PPO 0085 Palliative Care Orders – Critical Care
- PPO 0522 Beta-lactam Desensitization Protocol

## IX. IV Manual

To establish consistent NSHA intravenous (IV) administration policy, the Central Zone Intravenous Drug Therapy Manual (CZ IVDTM) has been endorsed as the IV policy for adult patients in NSHA; thereby becoming the NSHA IVDTM.

Hospitals within NSHA had been using two different references to guide the administration of IV medications in adult patients. All hospitals within NSHA currently have access to the NSHA online version of the IVDTM. In the zones that used the Ottawa Manual, paper copies were used that were not necessarily updated annually depending on the hospital. The NSHA IVDTM will continue to be maintained by the Drug Information Centre located at the Halifax Infirmary site. There is infrastructure to support the NSHA IVDTM in the form of the IV Drug Therapy Subcommittee of the NSHA Drugs and Therapeutics Committee.

### **New Monographs:**

- Idarucizumab
- Lacosamide
- Sodium acetate
- Sugammadex

### **Revised Monographs:**

- Anti-thymocyte globulin (rabbit)
- Argatroban
- Argatroban Infusion Table
- Ascorbic acid
- Calcium gluconate
- CefTRIAxone
- Dantrolene
- Diazepam
- DiphenhydrAMINE
- Epoprostenol (Caripul)
- Haloperidol
- Labetalol
- OXALlplatin
- phenyLEPHrine
- Rasburicase
- Sodium ferric gluconate
- Vasopressin

### **Removed Monographs:**

- Alcohol – removed from Canadian market
- Tromethamine - removed from Canadian market
- Vitamin B with C complex - removed from Canadian market

## X. NSHA Provincial Hospital Formulary

As part of the process to develop a single NSHA Provincial Hospital Formulary, a comparison of the former CDHA and CBDHA Formularies was completed. This comparison identified a CDHA discrepancy list (i.e., medications that were Formulary at CDHA but non-formulary at CBDHA) and a CBDHA discrepancy list (i.e., medications that were Formulary at CBDHA but non-formulary at CDHA). Since Central Zone has specialty tertiary care services (e.g., transplant) that require unique medications, the former CDHA Formulary will be used as the template that will be updated to develop a NSHA Provincial Hospital Formulary. The medications on both the CDHA and CBDHA discrepancy lists have been evaluated for future NSHA Provincial Formulary status.

The Medical Advisory Committee on the recommendation of the Drugs and Therapeutics Committee has approved the NSHA Provincial Hospital Formulary addition and removal of several medications. The lists of medications may be found in the attached appendices.

All hospitals within NSHA currently have online access to the endorsed NSHA Provincial Hospital Formulary.

The information contained in this newsletter may also be accessed online:

<http://cdhaintra/departmentservices/pharmacy/Formulary/index.cfm>

Published by the Pharmacy Department  
 Editor: Deborah MacIntyre, B.Sc. (Pharm.), ACPR  
 Drug Information Pharmacist  
 Central Zone

Tel: (902) 473-4248  
 Email: [debbie.macintyre@nshealth.ca](mailto:debbie.macintyre@nshealth.ca)

**Appendix I – Medications for Removal from NSHA Provincial Hospital Formulary  
(Former CDHA Formulary Medications)**

**No CDHA/ CZ usage in three years:**

Al Hydroxide, Mg Hydroxide & oxetacaine  
Ancestim  
Aprotinin  
Aspergillus  
Auranofin  
Benzalkonium  
Botulism Antitoxin Trivalent ABE  
Chorionic Gonadotropin Inj  
Chromium Inj  
Daclizumab Inj  
Delavirdine  
Diazoxide  
Dichlorobenzene & Oil of Turpentine  
Diethylstilbestrol  
Dimercaprol Inj  
Dithranol Cream  
Dofetilide  
Edrophonium Inj  
Enfuvirtide Inj  
Felbamate  
Fluorescein & Proxymetacain Eye Sol  
Gonadorelin Acetate 0.8 mg Inj  
Hyoscyamine

Influenza Purified Antigen  
Insulin Lente (Humulin L)  
Iodoquinol  
Lidocaine & Polymyxin B Otic  
Mafenide Cream  
Mechlorethamine  
Menotropins  
Methysergide  
Nandrolone  
Naphazoline & Antazoline Eye Sol  
Oxychlorosene Na  
Propantheline  
Proxymetacain Eye Sol  
Quinupristin & Dalfopristin Inj  
Rabies Ig Human Inj  
Rabies Whole Virus, Inactivated Inj  
Selenium Inj (Combined Electrolytes)  
Snake Venom Antiserum Sodium Perborate Powder  
Streptomycin Inj  
Sulfacetamide Na & Sulfur Lotion  
Telaprevir  
Tricophyton Test  
Tubocurarine Inj

**Market Withdrawal:**

Boceprevir  
Chlorprocaine Epi  
chlorpromazine inj  
Cyanide Antidote Kit  
Drotrecogin Alfa  
Ferumoxylol  
Indigo Carmine  
Procaine Inj  
Prochlorperazine inj  
Promethazine inj  
Ticarcillin/ clavulinate

**Health Canada's Special Access Program (SAO)**

Calcium disodium edetate  
Pentobarbital  
Propamidine eye soln 0.1%  
Thioridazine

## Appendix II – Medications for Removal from NSHA Provincial Hospital Formulary (Former CBDHA Formulary Medications)

### No CDHA/ CZ usage in three years and low CBDHA usage:

Atracurium  
Butalbital, ASA & Caffeine  
Casanthranol & Docusate  
Coal tar, pyrithione disulfide, salicylic acid, menthol shampoo  
Codeine-Pseudoephedrine-Triplolidine  
Cyclopentolate & Phenylephrine Eye Drops  
Ethyl Chloride Spray  
Flavoxate  
Idoxuridine Topical Sol (Herplex)  
Neosporin Cream  
Pentazocine  
Pericyazine  
Trypan Blue Inj

### Low usage at both CDHA/ CZ and CBDHA:

Abatacept  
Butalbital, ASA, Caffeine & Codeine  
Hydrocodone & phenyltoloxamine Susp  
Leuprolide Inj  
Pindolol

### Market Withdrawal:

Erythromycin & Sulfisoxazole Susp  
Fenoterol  
Orciprenaline  
Propoxyphene  
Triethanolamine Otic

### CZ/CDHA Formulary has a therapeutic interchange:

Al Hydroxide, Mg Hydroxide & Simethicone Susp  
Diphenoxylate & Atropine  
Famotidine  
Hydrocortisone, framycetin, cinchocaine, esculin

### Antimicrobial Stewardship consideration required:

Cefepime  
Minocycline  
Moxifloxacin

### Removed from CZ/CDHA because of Safety:

Chlordiazepoxide  
Chlordiazepoxide & Clidinium  
Trimipramine



**Appendix III – Medications for Addition to NSHA Provincial Hospital Formulary  
(Former CBDHA Formulary Medications)**

**CDHA/ CZ usage in three years:**

Acarbose  
Alendronate  
Amlinonide  
Bromazepam  
Buttock's Paste  
Carboxymethylcellulose Eye  
Castor Oil Liq  
Clodronate  
Cocaine Topical  
Cocaine Powder  
Crotamiton Cream  
Doxylamine & Pyridoxine  
Eplerenone  
Etanercept Inj  
Ethosuximide Oral Liquid

Eucerin/Glycerin/Water  
Ezetimide  
Fiber Tablets  
Isosorbide Mononitrate  
Leflunomide  
Levodopa & Benserazide  
Montelukast  
Naltrexone  
Orphenadrine  
Repaglinide  
Risedronate  
Temazepam  
Varenicline  
Zuclopenthixol

**Other:**

Acetylcholine  
Desflurane Solution  
Sevoflurane Sol