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All formulary changes and policy/procedure updates have been approved by the Drugs and Therapeutics (D&T) Committee and Medical Advisory Council (MAC).

This and other Drug and Therapeutics Newsletters are on the Web at www.vhpharmsci.com

Changes to Formulary

Additions

- 1. Trandolapril 0.5mg, 1mg , 2mg, 4mg capsules (Mavik®)**
 - Angiotensin-converting enzyme inhibitor (ACEI)
 - See page 1 for therapeutic interchange policy
- 2. Potassium Iodide 130mg capsules**
 - To replace iodide solution (Lugol's solution®) for treatment of hyperthyroidism

Deletions

- 1. Iodide Solution (Lugol's Solution®) 8mg iodide/drop**
 - Alternative: Potassium Iodide capsules

2. Amyl Nitrate perles

- Discontinued by manufacturer

3. Thioridazine tablets, liquid (Mellaril®)

- Discontinued by manufacturer

4. Enalapril tablets (Vasotec®)

- Alternative: Trandolapril (see Therapeutic Interchange Policy below)

Updated Policies

TRANDOLAPRIL THERAPEUTIC INTERCHANGE POLICY

Trandolapril is a long-acting ACEI similar to ramipril. ACEIs are indicated for a variety of conditions such as hypertension, heart failure, post-MI patients with low ejection fraction, and diabetic nephropathy. The usual dose is 1-2mg once daily with a target dose of 4mg daily (equivalent to ramipril 10mg daily) in post-MI patients.¹

At Vancouver Coastal Health (VCH), trandolapril is available to the region at a reduced price resulting in significant cost savings. In the community, trandolapril is priced at \$0.67 for a 1mg capsule which is similar in cost to an equivalent ramipril dose.

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In support of a region-wide standardization and cost-containment initiative, the Drug and Therapeutics Committee has approved the addition of trandolapril to formulary and that it be considered therapeutically equivalent to all ACEIs except ramipril and captopril. Effective Monday January 9, 2006, all ACEI orders other than for ramipril and captopril will be automatically interchanged to trandolapril at the same interval as the original ACEI at an equivalent dose (Table 1). Both ramipril and captopril will remain on formulary.

Table 1. Dose Equivalence of ACEIs

| Drug | Equivalent Dose |
|--|------------------------------|
| Trandolapril (Mavik [®]) | 1mg |
| Benazepril (Lotensin [®]) | 10mg |
| Captopril (Capoten [®]) | 12.5mg tid (no substitution) |
| Cilazapril (Inhibace [®]) | 2.5mg |
| Enalapril (Vasotec [®]) | 5mg |
| Fosinopril (Monopril [®]) | 10mg |
| Lisinopril (Prinivil [®] , Zestril [®]) | 10mg |
| Perindopril (Coversyl [®]) | 2mg |
| Quinapril (Accupril [®]) | 10mg |
| Ramipril (Altace [®]) | 2.5mg (no substitution) |

Reference

1. Kober L et al. A clinical trial of the angiotensin-converting-enzyme inhibitor trandolapril in patients with left ventricular dysfunction after myocardial infarction. *NEJM* 1995;333:1670-6.

NEW ALLERGY/INTOLERANCE FORM

In February of this year, a new one page white allergy documentation form was introduced as a trial in the Pre-Admission Clinic (PAC) at VGH. Due to the success of the trial, we are ready to implement this new form throughout our three sites (VGH, UBCH, and GFS).

The purpose of the new form is to:

1. standardize the allergy documentation process across sites
2. enhance the information that is documented (e.g. description of allergic reaction)
3. allow chronology of documentation
4. allow dedicated space for drugs, latex, radiocontrast media, and food allergies

The form may be completed by all physicians and pharmacists, as well as nurses in designated areas (currently PAC and UBCH). Guidelines are on the reverse side of the form.

The new allergy form will replace the "pink" allergy documentation form and is to be located in front of the physicians orders. Until the implementation is complete, both forms will be acceptable. The clinical pharmacists have started the introduction of the forms on the nursing units.

The allergy form must be faxed to pharmacy after initial completion and any subsequent update. This is essential to allow allergy/intolerance information to be entered into the Patient Care Information System (PCIS).

REMOVAL OF KETOROLAC ORAL INTERCHANGE POLICY

In 1992, a therapeutic interchange policy was approved whereby all orders for oral ketorolac were interchanged to indomethacin. However, due to the minimal prescribing of oral ketorolac, and the availability of other non-steroidal anti-inflammatory drugs (NSAIDs) on formulary, the physician will now be contacted to discuss the most appropriate alternate for this drug.

ICU EXEMPT FROM REWRITING POST-OP ORDERS

All drug orders are automatically cancelled following surgery and must be rewritten **except**:

- diagnostic procedures;
- closed procedures by means of catheter insertion and groin repair; and
- ICU patients

ICU patients are exempt due to the frequency of these patients going back and forth to the OR making compliance with the policy unmanageable and potentially unsafe.

TESTING AND REPORTING OF ANTIBIOTICS FOR TREATMENT OF MRSA

Diane Roscoe MD, FRCP(C)

Up until October 2005, the VGH Microbiology Laboratory restricted the reporting of antibiotics against MRSA to vancomycin to avoid the use of inappropriate antibiotics in the treatment of invasive MRSA infections. Recently we have observed an increasing incidence of infections due to "community-acquired MRSA" that are often susceptible to other antibiotics effective in treatment. There is also a continued concern about the over-use of vancomycin, in part due to the potential to drive the development of resistance to enterococci.

Effective October 2005, the results of susceptibility tests for MRSA against additional antibiotics will now be reported routinely on all clinical specimens. The antibiotics selected for reporting are felt to be appropriate for treatment of MRSA infections by the Medical Microbiologists and Infectious Disease specialists at VGH.

Vancomycin may still be considered the drug of choice for invasive MRSA infections, however, other antibiotics may be effective in less serious infections. If alternative agents are considered, combination therapy with rifampin is advised for most infections; rifampin should never be used as single-agent therapy. An Infectious Diseases consult is recommended for the treatment of invasive or complicated infections.

The following comment will be appended to all results with susceptibility tests: *These antibiotics are possible alternate therapies if this patient's MRSA is reported to be susceptible. Rifampin should never be used alone as single agent therapy. Combination therapy is currently advised for infections other than UTIs. For treatment of invasive infections, an ID consultation is advised.*

Specimens that are submitted for surveillance testing only, not in the presence of signs and symptoms of infection, will not have susceptibility tests reported.

Please phone Dr. Diane Roscoe (604-875-4547) or the Medical Microbiologist on-call (604-875-5000) if there are any questions.

NO CHANGES TO ORDERS AFTER BEING FAXED TO PHARMACY

Once an order has been processed and/or faxed to Pharmacy, no orders written on the physician's order form may be changed with add-ins, write-overs or by crossing an order out. A discontinued order must be written, along with the new order.

PATIENT SAFETY INITIATIVE - TALL MAN LETTERING

The Institute for Safe Medication Practices (ISMP) recommends that hospitals implement methods to help differentiate look-alike drug names. One method is called "Tall Man Lettering" which is the use of upper case fonts to differentiate one drug from another.

For example:

- dimenhyDRINATE and diphenhydrAMINE
- DOBUTamine and DOPamine

Starting on Monday, October 17, 2005 Tall Man Lettering will be applied to select drugs and will appear on medication labels, Omnicell computer screens, and Medication Administration Records.

If there are any questions, please contact Tessa Valg (UBCH -22726), Tonya Ng (VGH -66292) or Nargis Karsan (GFS -2314).

FENTANYL TRANSDERMAL PATCH SAFETY CONCERN

Fentanyl transdermal patches (Duragesic[®]) are not to be used in patients who are opioid naïve, or in patients who require opioid analgesia for short-term, intermittent or post-operative pain. Fentanyl patches should be prescribed for management of persistent, moderate to severe chronic pain in which a long-acting opioid is the appropriate choice. The lowest strength patch (25mcg) is indicated in patients who are already receiving opioid therapy at a total daily dose of at least 60mg/day morphine equivalents.¹ A half-patch method using the lowest 25mcg strength has been used at VGH in patients maintained on lower doses of morphine equivalents whereby half the patch is covered using an occlusive dressing such as Tegaderm[®].

Reference

1. Duragesic[®] Product Monograph, Sept 13, 2005.

PDTM UPDATES

These updates can be found on the intranet version of the PDTM (click on the PDTM link under regional Web sites on the VCH intranet homepage)

- Due to a backorder of streptokinase, **alteplase** may be prescribed for treatment of **pleural effusion** at a dose of 4-6 mg (up to 0.1 mg/kg) diluted in 30-100 mL NS instilled over 1-2 hours daily until resolution.
- The **air bubble in dalteparin** pre-filled syringes **should not be expelled** prior to administration to ensure the patient receives the complete dose.
- **Dihydroergotamine** may be administered **IV intermittent** in 50mL NS or D5W given over 15-30 minutes.
- **Lidocaine** may be administered by **local infiltration by infusion program nurses** in addition to hemodialysis and CCU nurses.
- **Scopolamine hydrobromide (hyoscine)** may be administered to reduce upper airway secretions in palliative patients with **terminal dyspnea** at an initial dose of 0.8 mg SC followed by 0.4-0.6 mg SC q1-4h prn.
- **Pantoprazole has extended stability** of 12 hours if further diluted in D5W and 21 hours if further diluted in NS. Pantoprazole may also be given **IV direct** over 2-5 minutes.

VGH PATIENT INFLUENZA VACCINATION INITIATIVE

Principle Investigator: Patrick Doyle, MD, FRCP(C), Medical Microbiology and Infection Control
Co-Investigators: Dr. Mark Hull, Andrea Derban, Tiffany Chong, Dr. Tim Lau, Dr. William Bowie

Background

Influenza remains a significant contributor to adult morbidity and mortality in North America and prevention of disease is considered to be an important strategy in reducing mortality and lowering the socio-economic burden of influenza.

Although the influenza vaccine has been demonstrated to reduce both the risk of death and the risk of hospitalization during influenza seasons, vaccination levels remain inadequate in

our highest risk patients - those admitted and re-admitted to acute care hospitals.

The development of an efficient vaccination system is not only important for influenza control on a yearly basis, but also for preparation for possible outbreaks such as Avian Influenza.

The Initiative

The Infection Control Vaccine Subcommittee has developed a protocol to assess patients admitted to VGH during the influenza season to determine whether they would qualify for pre-discharge vaccination.

- A pre-printed Assessment of Influenza Immunization Order (Form #451) is now available for use on all inpatient units at VGH. This form, which is available from printing, tracks eligibility criteria and contraindications to the vaccine.
- An additional form has been developed to be faxed to the patients' family doctor to determine vaccination status if the patient is unable to provide this information.
- These forms should be used by nurses and physicians for all patients admitted to VGH to assess eligibility for influenza vaccination prior to discharge.
- Patient information sheets (BC Health Files) regarding influenza vaccine are available at the BC Health website: www.bchealthguide.org/healthfiles/hfile12c.stm
- Monitoring of the protocol will occur on select units to find ways to improve the process for next year.

Please contact Tiffany Chong, Research Coordinator (tiffany.chong@vch.ca), if there are any questions regarding this initiative.

Congratulations

Congratulations to the following pharmacy staff members for being selected as "Preceptors of the Year" for the 2004/5 Pharm.D. Program at UBC:

- Dr. Peter Loewen
- Dr. Richard Slavik
- Dr. Kerry Wilbur
- Dr. Peter Zed