



However, the other drawer is labeled and highlighted “for Pharmacy use”. It is exclusively reserved for **Pharmacy labeled meds only**. This drawer will contain bulk items such as eye drops, creams, etc... and patient-specific parenteral (IV) meds only. Other non-pharmacy items found here will be removed and discarded: no questions asked.

Also, over the summer, pharmacy staff have washed all med cart cassettes. Please make every effort to keep our med carts squeaky clean as we head back after holidays by mopping up any spillages, etc...as they happen.

The anticipated co-operation in this matter is greatly appreciated. Thanxs ☺

### C. Stockpiling unused meds ..... Tsk! Tsk!

It has come to the attention of the Pharmacy Department that there are “squirrels” in the building! These sneaky characters are hoarding unused meds from discharged/transferred patients in various sections of the med carts for future use. The potential for medication errors with this practice is a big concern for Pharmacy.

➔ Adalat XL® 60mg was recently left behind in the unmarked cassette of a transferred patient. The new admission to the same bed was on Adalat XL® 20mg and this was also in the cassette: the similarity of these 2 tablets could easily lead to an incorrect dose being given.

➔ Stashes of prefilled dalteparin and enoxaparin syringes are routinely “stored” amongst the IV supplies in the med carts.

➔ Unlabeled bottles of Tums® can be found “saved” for a just-in-case situation. This can lead to potential drug-drug interactions since a variety of medications have precautions when given concurrently with antacids. We cannot stress enough, to avoid confusion, medication errors, drug interactions, and medications outdating --- all medications dispensed from Pharmacy must be kept in designated areas only. Any medication belonging to transferred or discharged patients **must** be removed from the individual cassettes and sent with the patient or returned to pharmacy.

Stock piling of unused meds is a definite **No-No !**

### III. DRUG INTERACTIONS

The issue of potential interactions involving alternative medicine products with prescription medications is a growing concern. In fact, in the January 2004 edition of the Canadian Adverse Drug Reaction Newsletter, there were 21 reports of suspected adverse reactions associated with ginkgo biloba. Most involved platelet, bleeding, and clotting disorders which is in line with the herbs ability to inhibit platelet activating factor.

However, the side effects of ginkgo are not isolated and many herbs and supplements have antiplatelet actions and potentially cause bleeding problems. Thus patients undergoing anticoagulant therapy with **warfarin** are particularly vulnerable to interactions when they also use herbal products because of warfarin’s narrow therapeutic index. For example, **dong quoi** is an herb promoted as a natural remedy for menopausal symptoms but it can also **double** the prothrombin time in warfarin patients. This herb contains natural coumarins and other substances that can inhibit blood clotting. Many other natural medicines might also interfere with warfarin.

An **increased** risk of bleeding could happen with garlic, ginger, ginkgo, feverfew, fish oils and Vitamin E. As well, some herbs have the opposite effect: warfarin can become **less** effective if it’s taken with herbs that contain vitamin K, such as alfalfa, green tea, parsley, stinging nettle and great plantain.

<u>Natural</u>	<u>Effects</u>	<u>Comments</u>
<u>Products</u>		
Dong Quai	Anticoagulant Antiplatelet	Can potentiate the therapeutic and adverse effects of warfarin and antiplatelet drugs
Fish Oils	Antiplatelet	Antithrombin activity of fish oils is due to prostacyclin synthesis, vasodilation, reduced platelet counts and adhesiveness and prolonged bleeding time
Garlic	Antiplatelet	Can inhibit platelet aggregation in vitro and enhance the effects of warfarin. It could increase the risk of bleeding at excessive doses.
Ginger	Antiplatelet	Excessive amounts of ginger can increase the risk of bleeding

Ginkgo	Antiplatelet	Can inhibit platelet aggregation and decrease blood viscosity, leading to an increase risk of bleeding when used concomitantly with anti-platelets or anticoagulants
Ginseng	Anticoagulant Antiplatelet	Could decrease the effectiveness of warfarin and affect clotting time
Vitamin E	Antiplatelet	Inhibits platelet aggregation and adhesion; interferes with Vitamin K; dependent clotting factor in large doses and increases the risk of bleeding with warfarin when Vitamin E > 400 IU/day.

This list is just a sample of the potential effects of some natural remedies with warfarin. For information relating to herbs not listed here and their effect on warfarin please consult appropriate literature resources or call the Pharmacy Department

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#### IV. DRUG INFORMATION

##### Vitamin K (phytonadione)

We often get calls questioning orders for Vitamin K, **orally**, so here's the 411 ..... There is plenty of good evidence that oral Vitamin K is effective for reversing the effects of warfarin.

It also has the advantage of being less painful and more convenient than the injectable formulations while reducing the risk of over correcting.

Literature suggests an oral dose of 1 - 2.5mg for patients with an INR between 5 and 9 (no clinically significant bleeding). A dose of 3 - 5mg Vitamin K orally for INR greater than 9 is suggested.

Since the only formulation is available in Canada is the injectable form, this is given **orally** by mixing with a small amount of water or other liquid. The Pharmacy Department carries Vitamin K injectable in a 1mg/0.5ml strength to make measuring these doses a little more convenient.

The 10mg/ml strength is also acceptable to use and is stock on most units.

##### Calcium ..... bare bones orders!

Oral calcium supplements are commonly written as inpatient orders. What seems like a straight forward therapy can require clarification however, if the order is simply: calcium 500mg po bid for example ? is this order for **elemental** calcium or a calcium salt???

Orders written for calcium carbonate 500mg orally would indicate the patient is to receive 200mg elemental calcium per dose.

For reference:

- calcium carbonate 500mg = 200mg elemental Ca<sup>2+</sup>
- calcium carbonate 1250mg = 500mg elemental Ca<sup>2+</sup>
- calcium gluconate 500mg = 45mg elemental Ca<sup>2+</sup>
- calcium lactate 500mg = 65mg elemental Ca<sup>2+</sup>

The potential for confusion is obvious. Please ensure that oral calcium orders, especially those that are a "med-from-at-home", clearly indicate the strength of calcium required and whether the calcium is dosed elementally or in its salt form.

The following products are currently stocked in the Pharmacy Department:

- Calcium carbonate 500mg/tablet (Tums®) = 200mg elemental calcium /tab
- Calcium carbonate 1500mg/ tablet + Vitamin D 200 IU/tab (Caltrate D®) = 600mg elemental calcium/tab
- Calcium carbonate 625mg/tablet (Os-cal®) = 250mg elemental calcium/tab
- Calcium carbonate 1250mg/tab (Os-cal®) = 500mg elemental calcium/tab
- Calcium Liquid (Calcium Rougier®) = 97.5mg elemental calcium/teaspoonful
- Calcium effervescent 500mg tabs (Calcium Sandoz Forte®) = 500mg elemental calcium/tab

#### V. BITS AND BITES

##### Medication Disposal.....

Regarding the disposal of outdated office supplies of medications; the Pharmacy Department is responsible for this disposal service for **salaried** physicians only.

All other physicians are to make arrangements for disposal of outdated medications with an alternate

source once medications are rendered in an unusable state.

Thank you in advance for your cooperation.

**Reduce, Reuse, Recycle .....**

Staff are reminded that when using lidocaine hydrochloride endotracheal spray (topical anesthetic), please do not discard the stainless steel nozzles after use.

These stainless steel nozzles may be steam-sterilized at 121° C for 15 minutes and reused. Please return them to SPD for cleaning and re-packaging.

**Central Line Care..... are you aware?**

The Pharmacy Department is still getting requests (with and without written orders) for betadine ointment for the routine dressing changes of both PICC and central venous lines.

Just a reminder that there are 2 nursing policies dealing with the care of both of these central catheters and the product recommended is:

chlorhexidine 0.5% with 70% alcohol. This is commercially available as a *premixed*, colorless solution carried by **Stores Department**.

Pharmacy does not carry this product. Betadine ointment will only be supplied for patient specific orders and not as part of routine catheter care.

**GOODBYE AND GOOD LUCK** ☺

“Goodbye” and “Good Luck” to **Barry Manuel**, a pharmacist who has left the department to move out of town and to **Gina (Mitchell) Locke**, a pharmacy technician who is leaving the department to move out of province.

All the best, Gina and Barry, in your new endeavors.

**CONGRATULATIONS**

**IN CLOSING**



“Congratulations” to pharmacist Brad Payne and his wife, Tracey, on the birth of their **baby boy!**

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**Doctor: (to patient)**

“is there any insanity in your family?”

**Patient: (woman)**

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***And a Pharmacy favorite:***

Accept that some days you are the **Pigeon**, and some days the **Statue!**

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