April/May/June 2012
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A Publication of the Manitoba Society of Pharmacists Inc.

COMMUNICATION

The Voice of Pharmacists in Manitoba

manitoba society of Pharmacists

MSP

presents

The Manitoba Pharmacy Conference

'The Evolution of Pharmacy Practice'

April 20th to 22nd, 2012
Winnipeg Convention Centre

Continuing Education

Therapeutic Options Focus On Alzheimer's Disease

The Last Word

The Expectation Effect – Why Anticipation of a Cure can be Good Medicine

Feature

Use of Moisturizers in Atopic Dermatitis

Publication Mail
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The Manitoba Society of Pharmacists
202–90 Garry St., Winnipeg, MB R3C 4H1

THIS ISSUE

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Now is the Time

If there has ever been a time to become familiar with the national pharmacy landscape, it is now. Drug reform, expanded scope of practice, a changing labour market and an unknown future have jumpstarted the profession and changed the future of pharmacy in our neighbouring provinces forever. I don't think we need to paint a doomsday scenario but it is very important for pharmacists to stand up, take notice and realize what we will be faced with in this province and across the country very soon. We will not be insulated forever in Manitoba.

ALAN LAWLESS

It is possible that we are on the verge of finally having our new legislation enacted in this province. If the MPhA Legislature Proclamation Component Development Project as outlined is successful and Bill 41 is enacted, a new era of unprecedented change in the way we will need to practice will be ushered in. Change is good, change is necessary, change is not our enemy. We just have to be prepared. We will have to be willing to adapt and seize the opportunities that are presented to us. This is especially true when talking about the upcoming expiry of the Canada Health Accord in 2014. There are many different visions on what the health care system will look like in Canada after this date. One thing is for certain, there will be change.

We need to be front and center advocating for OUR profession. We can't allow ourselves to be used as a loss leader to drive "foot traffic" into stores. This will not benefit us in any way, shape or form in the long run. We need to take advantage of billing opportunities and implement paid for service programs. I know, this has been said to death, but it is going to be necessary for economic and employment survival. If we don't isolate, recognize, and step up to the health care based services that the citizens of this country need then another profession will. We need broader prescribing rights, and disease state management options.

It will be vitally important for pharmacists to be on top of their game. Pharmacists with the proper training will succeed. As stated in the most recent Blueprint in Motion: "The pharmacy labour market is rapidly changing. Due to an influx of international graduates, an increase in the number of Canadian graduates, increased emphasis placed on pharmacy technicians, and the economic pressures placed on business, this market is prone to a surplus relative to job opportunities." The writing is on the wall. We need to expand our current clinical offerings and prove how invaluable we are to patient care. No one is going to do this for us.

There is no doubt that generic reform and changes to "professional allowances" will impact the pharmacy business model. In Ontario it is estimated that each pharmacy in the province will lose $250,000 in revenue due to the initial rollout of drug reform. You will have to do a lot of "meds checks" to make that up. The good thing is that these are the early stages of change. If we prepare a proper "business plan" as they say, then we may be able to demonstrate to government the benefits that we bring to the health care system rather than the costs.

This brings me to the point I am trying to make. It will be vitally important to have OUR vision of what we want pharmacy to look like in Manitoba drafted and a complete economic model developed when we go to government for paid services post enacting expanded scope legislation. We can learn from the mistakes made in Ontario. A recent article in the CPJ entitled "Ontario pharmacists' crisis over Bill 16: A missed opportunity?" is an excellent article. It describes pharmacist resistance to practice change by continuing to hold on to dispensing as the primary activity and refusing to focus on patient focused care as outlined in the Blueprint for Pharmacy. We need to capture and search for innovative ways of delivering patient care to continue expanding on what will be handed to us by the government.

This brings me to the idea of patient centred care. We may all have slightly different versions of what exactly patient centred care is but there is one commonality. We need to improve clinical skills, take advantage of continuing education programs, and prepare for the transition. This will involve eventual injection training, training in smoking cessation, and CDE designation. Programs like QUIT and Catalyst are excellent to help increase knowledge and obtain the tools necessary for proper patient and business management of smoking cessation. These are prime paid services in other provinces. Updating skills for potential prescribing, therapeutic management, and meds checks will hopefully be on the horizon. We still need to see exactly what our expanded scope will be assuming that the latest regulations development process is successful and Bill 41 is finally put to bed.

Now I can once again stand on my soapbox and beg for the support of our profession. Never has there been a more important time to stand together and advocate for the profession. Physicians experienced cuts in the 80s and they unified. Nurses experienced cuts in the 90s, and they unified. Now our time has come. We MUST unify in response to government pressures and seize every opportunity to elevate the profile of pharmacy. We are losing ground at a rapid pace. For example registered nurses (RNs) are now seeking prescribing capabilities. But that being said, there are still about five million Canadians without a primary care physician. That is a huge demand that we can serve in some form. No one is going to hand us the opportunity. We need to advocate for it. This is where support of the profession and involvement come in. Please be active and participate in your profession. Get involved in committees, get active and convince colleagues to become members of MSP, run for MPhA Council, and come to the Annual Pharmacy Conference. There is no better platform to network, learn and connect with your colleagues. Now is the time for support.

PROVINCE OF MANITOBA

PROCLAMATION

Pharmacist Awareness Week

WHEREAS this year's goal is to encourage patients to take a more assertive approach when examining their health care needs and to encourage them to ask for advice from their pharmacist; and

WHEREAS pharmacists are a valuable resource in patient care and an important part of a person's health care team; and

WHEREAS with more than 25,000 drug products available in Canada, a pharmacist's knowledge and expertise in managing drug therapy and providing patient care is essential and valuable to all Manitobans; and

WHEREAS pharmacists can also provide up-to-date advice on staying well, preventing disease, and making healthy lifestyle changes;

Now therefore let it be known that I, Theresa Oswald, Minister of Health for the Province of Manitoba, do hereby proclaim the week of March 4 – 10, 2012, as

Pharmacist Awareness Week

in Manitoba and do commend its thoughtful observance to all citizens of our province.

Minister

The MSP Economics Committee Update

The MSP Economics Committee has been very active throughout 2011 and early into 2012. The work of the committee has resulted in a new Personal Care Home Agreement for pharmacy services provided to residents in personal care homes and a one year Memorandum of Understanding with Health Canada on the Non-Insured Health Benefits Program. An overview of the achievements of the committee and the resulting agreement is provided below.

Personal Care Home Agreement

The Manitoba Society of Pharmacists (MSP), Manitoba Health and Regional Health Authorities are parties to the new agreement which was effective from April 1, 2009 to December 31, 2011.

After prolonged discussions and negotiations the MSP Negotiating Committee determined that concluding this agreement at this time was in the best interests of pharmacy providers. This new agreement expired at the end of 2011, and the parties will continue to negotiate towards reaching a long term comprehensive agreement which addresses such issues as the non-payment for various pharmacy and professional services currently provided.

This new agreement provides for one increase to fees which is effective on April 1, 2009. In previous rounds of negotiations relating to these agreements, MSP established retroactivity to the expiry of the most recent agreement which was an important requirement. This means that pharmacy providers are not unfairly prejudiced when new agreements are not finalized in a timely manner.

Economics Chair, Gregory Harochaw, indicates the new agreement provides for a small increase and was significantly influenced by the Provincial Government's Bargaining Position which has provided no increases for public sector employees, and various health professions. "This agreement implements a retroactive increase to fees and expires at the end 2011 because it does not address the priorities identified by the MSP Negotiating Committee" indicates Harochaw.

Each Regional Health Authority has been instructed to address retroactive payments by Manitoba Health and providers will receive further information directly from the Health Authorities or their representatives. The parties will continue with negotiations and MSP members will continue to be updated on the progress made.

The agreement has been posted to the MSP website and can be viewed at http://www.msp.mb.ca/PDF/3rdParty/PCH%20Agreement%202011.pdf

Memorandum of Understanding with Health Canada on the Non- Insured Health Benefits Program.

The Manitoba Society of Pharmacists' Economics Committee has reached a one year Memorandum of Understanding with Health Canada on the Non- Insured Health Benefits Program. The Agreement came into effect on Feb. 6, 2012 and calls for an increase to the maximum professional fee from $10.05 to $10.55. As with past agreements members are reminded that the Usual and Customary Fee is to be charged if it is less than $10.55.

The wording of this agreement is substantially different from past agreements and members are encouraged to read the document carefully. Other key aspects to the agreement include:

1. The flat fee for prescribed over the counter drugs and diagnostic agents and supplies is $5.28 effective Feb. 6, 2012. This is a nominal increase (50% of the new professional fee).
2. For medical supplies and equipment a staggered fee has been introduced. NIHB will pay actual acquisition cost plus a maximum mark-up, up to a maximum amount equivalent to the usual and customary fee (regular retail price),
   - for items with an AAC of $28.00 or less, actual acquisition cost plus a mark-up of 66%; or
   - for items with an AAC between $28.01 and $75.00, actual acquisition cost plus a mark-up of 50%; and
   - for items with an AAC between $75.01 and $500.00, actual acquisition cost plus a mark-up of 40%, with a cap of $200.

This list is not exhaustive and MSP encourages all NIHB providers to become familiar with all the terms of the agreement. A copy has been posted to the MSP website and can be downloaded at http://www.msp.mb.ca/PDF/3rdParty/NIHB%20MOU.pdf

Use of Moisturizers in Atopic Dermatitis

The first article (Dry Skin) provided a review of various types of ointment bases and their properties. The second article in the series covered the use of moisturizers and medications in the treatment of dry skin and eczema. This third and final article provides suggestions for the use of moisturizers to repair the skin barrier in the treatment of atopic dermatitis.

MEERA B. THADANI
M.Sc.(Pharm.)

Atopic (*atopy* Greek – out of place) dermatitis (inflammation of the skin) is a chronic skin condition characterized by:

- Itchy skin (pruritis)
- Flares and remissions, often symmetric
- Dry skin[1]

Often emerging in the first few months of life and affecting up to 15% of children, atopic dermatitis may persist into adulthood (about 1/3 of patients) causing much discomfort and reduced quality of life if not controlled adequately. Of those affected about 85% will have mild to moderate atopic dermatitis.[2]

Contributing factors in atopic dermatitis include:

- genetics
- altered immune response
- environment
- dysfunctional skin barrier

Genetics

Genetic alterations that:

- increase IgE (antibody) production
- alter the regulation of the immune response in the skin
- affect the epidermal barrier

have been associated with atopic dermatitis (Figure 1).

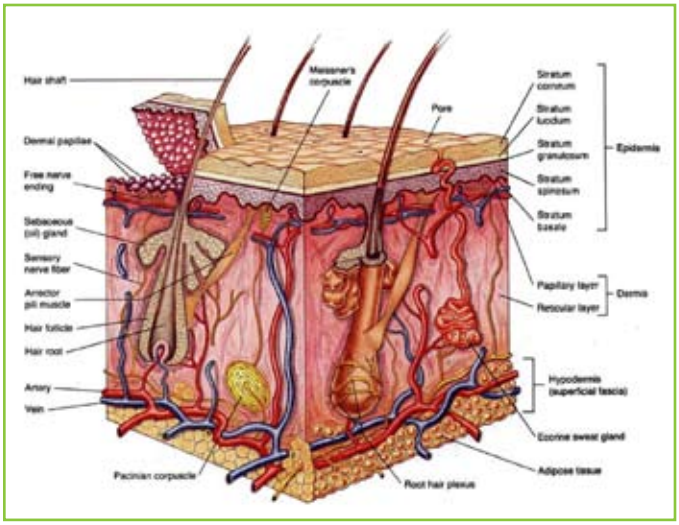

Figure 1 Cross-section of the skin

Altered immune response

Associated with atopic dermatitis are:

- Increased levels of IgE (antibody)
- Increased protease expression
- Decreased structural proteins in the epidermis

Environment

Contributing factors include:

- Sensitivity (allergic) to dust mites and foods
- Exposure to microbial factors in infancy
- *Stapylococcus aureus* colonization
- Low humidity levels (dry climates), hot climates
- Irritants such as detergents and chemicals

Dysfunctional skin barrier

The epidermis is a physical barrier as well as an immunological barrier to microbes, irritants (chemicals) and allergens. In atopic dermatitis the barrier loses water causing the skin to become dry. When the barrier is damaged, allergens, chemicals and microbes can enter to stimulate inflammation. The degree of dysfunction correlates to the degree of inflammation.

The stratum corneum (Figure 1) is composed of keratinocytes that are surrounded by a matrix of lipids composed of ceramides (50%), cholesterol (25%) and fatty acids (10-20%) (Figure 2). In atopic dermatitis there are reduced levels of lipids in the stratum corneum.

Stress can further affect this barrier by increasing the body's production of glucocorticoids which suppress the immune system and synthesis of epidermal lipids. The skin irritation causes itching which can lead to scratching which further disrupts the skin barrier.

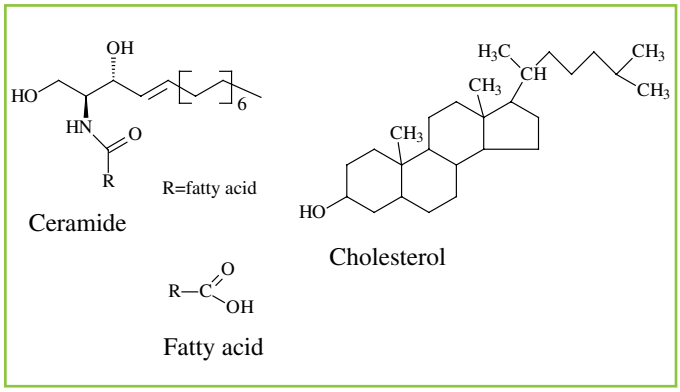

Figure 2 Chemical structures of ceramide, cholesterol and fatty acids. These lipids keep water within the skin. A healthy skin barrier prevents allergens, microbes and other pathogens from entering. In atopic dermatitis there are reduced levels of lipids in the stratum corneum.

Treatment for Atopic Dermatitis

Treatment options include:

- Topical corticosteroids (very potent, potent, moderate, mild)
- Topical calcineurin inhibitors (tacrolimus and pimecrolimus)
- Antimicrobial agents (secondary superinfection with *Staphylococcus aureus*)
- Emollients
- Barrier repair creams (containing ceramides)
- Non-pharmacologic strategies

Topical corticosteroids

These agents are immunosuppressive, anti-inflammatory, anti-proliferative and vasoconstrictive to stop itching, redness and swelling. They are described as very potent, potent, moderate and mild. Table 1 provides a list of the agents.

Table 1 Topical Corticosteroids

Category	*Strength*
Very Potent	
• Betamethasone dipropionate ointment	0.05%
• Clobetasol propionate	0.05%
• Halobetasol propionate	0.05%
• Halcinonide	0.1%
Potent	
• Amcinonide	0.1%
• Betamethasone dipropionate cream	0.05%
• Desoximetasone	0.25%
• Diflucortolone valerate	0.1%
• Fluocinolone acetonide	0.01%, 0.025%
• Fluocinonide	0.05%, 0.1%
• Fluticasone propionate	0.05%
• Mometasone furoate	0.1%
Moderate	
• Betamethasone valerate	0.05%, 0.1%
• Clobetasone	0.05%
• Hydrocortisone acetate	1%
• Hydrocortisone valerate	0.2%
• Triamcinolone acetonide	0.1%
Mild	
• Desonide	0.05%
• Hydrocortisone	0.5%
• Hydrocortisone acetate	0.5%

Topical calcineurin inhibitors (pimecrolimus, tacrolimus)

These agents can be used on all body parts (face, neck, groin) because they do not have an effect on collagen synthesis or skin thickness as with topical corticosteroids. They are an anti-inflammatory option for patients who have not responded to topical corticosteroids or in patients who have experienced steroid related side effects or where corticosteroids are not advisable.

Calcineurin inhibitors bind to intracellular receptors known as FK binding proteins. The resulting complex inhibits calcineurin which then reduces the activity of T-lymphocytes in the immune system. The result is that T-cells fail to release their cytokines which are responsible for the inflammation, redness and itching seen in atopic dermatitis (Figure 3).

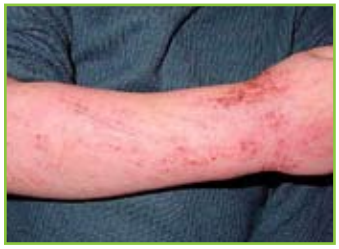

Figure 3 Atopic dermatitis lesions on the arm. It should be noted that oral sedating or non-sedating antihistamines are not used for treatment because of a lack of supporting evidence.

Antimicrobial treatment

Short courses of antibiotics are used to treat infections with *S. aureus*. Frequent use or prolonged use can lead to antibiotic resistance.

Use of emollients (moisturizers)

The first article reviewed the emollients available to treat dry skin.[3] An ideal emollient should maintain appearance and integrity of the skin by:

- Reducing water loss by trapping moisture into the skin to soften and soothe the skin
- Restoring the lipid barrier
- Repairing the skin barrier

Emollients that have a higher content of oils are preferred because they trap moisture into the skin and form a protective barrier. Check the label to see whether there is a higher concentration of oils (petrolatum, mineral oil, shea butter for example). Emollients will improve the appearance and symptoms of dry skin. Recommend fragrance free products.

Barrier Repair Creams

These creams have a balance of ceramides, free fatty acids and cholesterol in a (3:1:1) ratio. Lipids traverse the stratum corneum and are incorporated into the lamellar bodies of the stratum granulosum. This results in an increase in the lipid bilayers of the stratum corneum. Transepidermal water loss (TEWL) is normalized (not blocked) during this process, allowing barrier repair to proceed (Figure 4).[4]

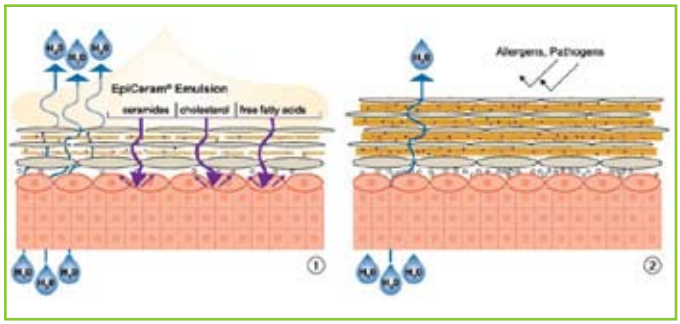

Figure 4 Mechanism of action of a barrier repair cream

Non-Pharmacologic Strategies

Patients can be educated to:

- Identify and avoid allergens whether they are environmental (pollen, animal dander, smoke, dust, dust mites, molds) or food (peanuts, fish, shellfish, milk).
- Identify and avoid irritants (perfumes, harsh soaps, long hot baths and showers, fabrics that can cause the skin to itch (wool)).
- Use emollients often to rehydrate the skin.
- Keep any item of sports equipment clean and dry.

Management of Atopic Dermatitis

Conventional treatment for atopic dermatitis has been reactive using topical corticosteroids to control the flares.[5]

A preventative/maintenance treatment with corticosteroids to clear lesions followed by low dose intermittent use (twice a week) is used to keep the skin areas clear and prevent flares.[6]

Similarly, preventative/maintenance treatment using tacrolimus twice a day after initial flare treatment to clear lesions followed by tacrolimus twice weekly has been shown to be effective to prevent flares. Tacrolimus has been approved (September 2010) as a maintenance therapy in moderate to severe atopic dermatitis.[7]

Regardless of the approach, emollients and barrier repair products are combined with pharmacologic treatments to hydrate the skin, maintain its integrity, keep it looking soft and smooth and help reduce the number of flares to improve quality of life for the patient.

Summary

Atopic dermatitis is a chronic condition for which there is no cure. Understanding the process which leads to flares has focused treatment on the skin barrier. Preventative/maintenance treatment using topical corticosteroids and calcineurin inhibitors has provided a long-term strategy for the control and prevention of flares. Using moisturizers and barrier repair creams to hydrate the skin is an important adjunct to this and pharmacists are in an ideal position to help their patients with product selection and ongoing skin care treatment.

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Manitoba Society of Pharmacists

ANNUAL GENERAL MEETING AGENDA

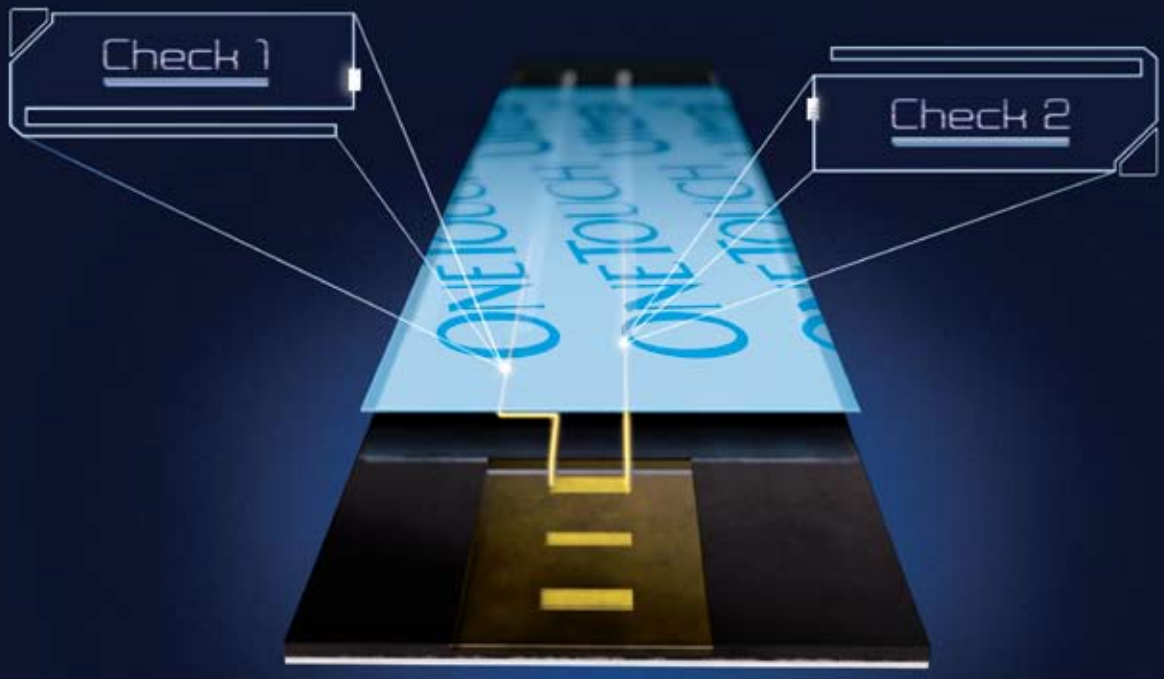
Saturday, April 21, 2012, 9:00 am

The Winnipeg Convention Centre, 375 York Ave., Winnipeg, Manitoba

Chair – Jay Rich

1. Minutes of the Annual General Meeting, April 16, 2011
2. Business Arising
3. President's Address . . . . . M. Baxter
4. Auditor's Report
5. Finance Report . . . . . A. Desjardins
6. Acting Executive Director's Report . . . . . J. Ell
7. MSP Committees
   - 7.1 Communications Journal Committee . . . . . A. Lawless
   - 7.2 Membership Committee . . . . . J. Ell
   - 7.3 Economics Committee . . . . . G. Harochaw
   - 7.4 Professional Relations Committee . . . . . B. Kural
   - 7.5 Government Relations Committee . . . . . M. Baxter
   - 7.6 Pharmacare Committee . . . . . A. Desjardins
   - 7.7 Insurance Committee . . . . . M. Baxter
   - 7.8 Good Governance Committee . . . . . A. Desjardins
   - 7.9 Public Relations Committee . . . . . G. Romanetz
8. Liaison Reports
   - 8.1 Canadian Pharmacists Association Liaison . . . . . K. Petrasko
   - 8.2 Student Liaison . . . . . L. Vuong
9. New Business
10. Closing Resolution

The test strip with a second opinion built right in.



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DoubleSure® Technology

Managing Medications That Prolong The QT Interval

JASON HOEPPNER
B.Sc.(Pharm.)

As pharmacists, we are always on the lookout for adverse drug effects and potentially serious drug-drug interactions. One of the most common issues we deal with relates to the QT-interval, specifically drugs that can prolong the QT-interval and predispose patients to potentially life-threatening arrhythmias. The recent warnings regarding citalopram in doses greater than 40 mg and QT prolongation highlight this potential problem with which many different drugs have been associated.

The amount and type of information available in hospital and community pharmacy practice can be very different, with more complete medical histories and ECGs often being available in the hospital setting. While assessing risk related to QT prolongation in the hospital practice can be challenging, the lack of important information in the community can make clinical decisions especially difficult. It is important to have an understanding of what the QT interval represents, which drugs are more likely to cause QT prolongation and which factors put patients at higher risk of arrhythmia in the setting of prolonged QT interval.

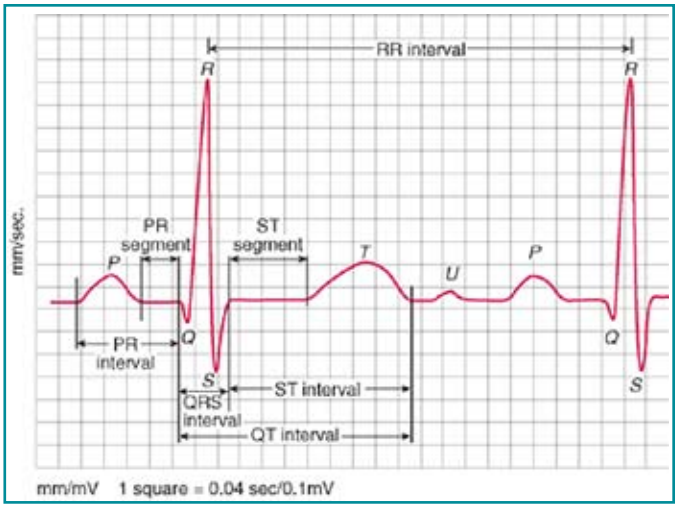

Fig 1. The Electrocardiogram
merckmanuals.com

What Is The QT Interval?

As its name suggests, the QT interval is the length of time between the beginning of the QRS complex and end of the T wave. As the QRS represents ventricular depolarization on the electrocardiogram, and the T wave represents repolarization of the ventricle, the QT interval is essentially the duration of the electrical cycle of the ventricles.

As the heart rate increases, the cardiac cycle (represented on the ECG as the R-R interval) shortens. The QT interval also shortens in proportion to the shorter cardiac cycle. Conversely, as the heart rate decreases, both the cardiac cycle and QT-interval are prolonged. In order to account for these rate-dependent changes in the QT-interval, we use the corrected QT, or QTc interval.

QTc = QT/√RR (where RR is the length of time in seconds between consecutive R waves)

Though defined limits for QTc are varied throughout the literature, generally a normal QTc is less than 420 milliseconds in males and less than 440 milliseconds in females.

What Is The Risk Of Prolonged QT Interval?

A prolonged QTc interval represents a prolongation of the repolarization phase of the ventricles. As repolarization is prolonged, the potential for early afterdepolarizations (EADs) increases. EADs are oscillations of the membrane that occur during repolarization of the cardiac myocyte. When an EAD causes the cell membrane to reach a specific voltage (known as the threshold potential), the entire cell membrane depolarizes and an additional action potential results. This premature depolarization of the ventricle may then initiate a potentially lethal arrhythmia known as Torsades de Pointes (TdP). The ventricular rate seen in TdP is too rapid to allow for adequate filling of the ventricles, and as a result, cardiac output drops dramatically and circulatory collapse ensues.

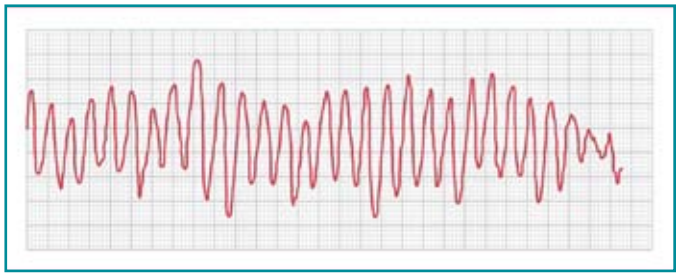

Fig 2. Torsades de Pointes on Electrocardiogram
medcert.com

What Causes Prolonged QT Interval?

1. Congenital Long-QT Syndrome

There are at least seven different gene mutations that have been associated with prolonged QT interval. The incidence of Congenital Long QT Syndrome is about 1 in 5000 people in the general population. Patients with a strong fam-

ily history of sudden cardiac death should undergo ECG testing to diagnose or rule out Congenital Long-QT Syndrome. Patients with this condition are at high risk of Torsades de Pointes from the medications listed below.

2. Acquired Long QT Syndrome

Simply put, this is a prolongation of the QT interval by medications, metabolic conditions, disease states and other patient factors:

Drugs

Virtually all medications that prolong QTc do so by blocking the current mediated by the rapid potassium channel (IKr) encoded by a gene known as HERG. A 2005 report by the World Health Organization assessed 52 different drugs in terms of potassium channel blockade and demonstrated a linear relationship between the potency of this blockade and a composite of cardiac death, sudden death, Torsades de Pointes, ventricular tachycardia and ventricular fibrillation.

The following are some of the drugs and drug classes known to prolong QT interval. One helpful website for assessing a drug's QT-prolonging potential is http://www.azcert.org/index.cfm. It is maintained by an independent research and educational centre and categorizes drugs by their likelihood of causing QT-prolongation. It also provides guidance on drugs to avoid in patients with congenital long-QT syndrome. The Rx Files also has an extensive list of QT-prolonging medications.

Metabolic Conditions

Hypokalemia, hypomagnesemia, hypocalcemia, hypothyroidism, starvation, anorexia nervosa.

Other Factors

Female sex, myocardial ischemia/infarction, hypothermia, advanced age, HIV infection, intracranial neoplasms, recent cardioversion from atrial fibrillation with a QT-prolonging antiarrhythmic and ion channel polymorphisms.

Management Of QT-Prolonging Medications

So what do you do when a patient is prescribed one of the above medications? There are a number of questions that pharmacists should address to assess each patient's risk of QT prolongation and Torsades de Pointes from medications.

Is the patient on any other medications that can prolong QT?

Try to avoid combinations of QT-prolonging drugs, as this has been shown to greatly elevate the risk of Torsades de Pointes.

Does the patient have a history of Long-QT or TdP? Is there a family history of sudden cardiac death or long-QT syndrome?

These are patients at higher risk of arrhythmic events from QT-prolonging medications who should avoid these medications unless no suitable alternative is available.

Table 1. Medications commonly associated with prolonged QT interval and Torsades de Pointes

Drug Class	Medications	Comments
Antiarrhythmics	Quinidine, procainamide, disopyramide, sotalol, ibutilide	Amiodarone prolongs QT interval but rarely causes TdP except in the setting of hypokalemia or concomitant QT-prolonging drugs. Amiodarone also interacts with many QT-prolonging drugs.
Antihistamines	Terfenadine, astemizole	Both of these agents are withdrawn from the market
Antimicrobials	Macrolides – erythromycin, clarithromycin and telithromycin Fluoroquinolones – sparfloxacin, levofloxacin, gatifloxacin, moxifloxacin Azole Antifungals – fluconazole, voriconazole, posaconazole	Azithromycin is less likely to prolong QTc and has not been shown definitively to cause TdP Ciprofloxacin has little to no effect on QTc
Antipsychotics/ Antidepressants	Thioridazine, phenothiazines (eg. chlorpromazine) tricyclic/ tetracyclic antidepressants, SSRIs (especially citalopram >40 mg/day), haloperidol, risperidone, ziprasidone, pimozide	
ADHD Agents	Amphetamine, atomoxetine, dextroamphetamine, methylphenidate	
GI Motility Agents	Domperidone, metoclopramide, cisapride	Cisapride only available through Health Canada Special Access Program (SAP)
Antineoplastics	Dasatanib, sorafenib, crizotinib	
Others	Methadone,5-HT3 antagonists (ondansetron, granisetron, dolasetron), HIV protease inhibitors, cocaine	

For a complete list, please visit www.azcert.org

Does the patient have any of the risk factors/conditions which predispose to long-QT or TdP? Are they elderly, female, bradycardic? If they are on diuretics, have they had recent bloodwork done to check potassium, magnesium and calcium?

Correcting electrolyte abnormalities can prevent arrhythmias caused by medications.

For patients with risk factors for QT-prolongation, a baseline ECG should be obtained to determine QTc interval.

Use to following to guide clinical decision making:

If baseline QTc ≤ 410 msec. – Very Low Risk.

– May not require ECG monitoring after drug initiation. Consider if additional risk factors develop or drug-drug interaction is likely.

If baseline QTc 420-440 msec. – Low to Moderate Risk

– Repeat ECG after drug initiation, at steady state, weekly for 1 month then q6months provided drug clearance, patient risk factors do not change.

– If QTc > 450 msec. reduce dose or discontinue drug.

If baseline QTc ≥ 450 msec. – Moderate to High Risk.

– Repeat ECG after drug initiation, at steady state, weekly for 1 month then q6months provided drug clearance, patient risk factors do not change

– Monitor serum potassium and magnesium levels regularly

– If QTc >500 msec. discontinue drug

Certain high risk medications, such as sotalol, dofetilide and ibutilide should be initiated in a hospital setting where continuous ECG monitoring is available. The QTc should be done at baseline and until steady state to ensure QTc does not increase excessively.

Identifying patients at risk of drug-induced QT prolongation is an important role for the pharmacist. By understanding which drugs and patient factors place patients at risk, we are better prepared to help reduce these risks.

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12. Thank you to Rob Ariano, Pharm D and Travis Warner BSP, ACPR, BCPS for reviewing and helping to revise this article!

Q&A: GETTING TO KNOW YOUR MANITOBA PHARMACISTS

Name: **Amarjeet Singh Makkar**

Place/Year of Graduation: India / 1995

Years of practice: 13

Currently Working: pharmacist / owner at Shoppers Drug Mart, Member of MSP Professional Relations Committee

Accomplishments in Pharmacy: Lifelong learning in pharmacy certification by MPhA for the years 2009, 2010, and 2011

Family: Wonderful wife Ravinder and two amazing boys Manmeet (12) and Navmeet (8), who both have the same birthday – Sept. 25th.

Hobbies: Reading and writing

Community activities: Conducted 5 diabetes seminars with help of CDA in south Asian community churches in 2011

Favorite thing about Manitoba: Friendly people and wonderful summers

What can you do without forever: I can survive without my cell phone.

What couldn't you do without for even a day: It would be hard to live away from my family.

What do you love about pharmacy: I like my pharmacy team, which makes my job easy by keeping things organized and tidy.

Do you know someone who is making a difference in the pharmacy community? We would like to highlight them in this article! Please contact the MSP office at (204) 956-6681 or info@msp.mb.ca.

A Few Risky Leaps of Faith

JENNIFER DYCK
BSP, ACPR

Having practiced as a pharmacist for a little less than ten years, I have been fortunate to have been offered training and opportunities that have led to my current specialized practice. My story begins in Saskatchewan, where I completed my undergraduate degree, and then moves to Winnipeg, where I completed a hospital practice residency in 2004. The residency experience seeded a love for ambulatory practice and renal disease, formed a foundation for self-directed learning and introduced me to contacts across Canada with whom I would come into contact later.

A few risky leaps of faith – saying yes to certain opportunities such as moving back to Saskatchewan and transitioning into new roles – formed the path to my current practice. That first step of setting up a practice in renal transplant (in Saskatchewan) was rewarded with CSHP's *New Hospital Pharmacy Practitioner Award* in 2007.

Aside from completing a hospital residency, I had no formal training in transplantation. I learned from mentors, self-directed study and asking questions of colleagues. I still spend time keeping up with current developments in the literature, attending educational rounds or conferences with nephrologists and other health care professionals, and discussing issues with the transplant team and Canadian colleagues. Sharing this knowledge through newsletters, presentations and lectures is also an important part of my practice.

I am now a pharmacist with Manitoba Transplant, exclusively with adults who receive kidney transplants. I work in a team-based environment with physicians, nurses, a dietitian and social worker. I don't dispense medications but I think and talk about drug therapy a lot. I follow patients as they move between community and hospital settings. I communicate with patients, family and health-care professionals in-person, by phone, e-mail, fax and letter. I deal with EDS, insurance plans and Pharmacare coverage. I navigate drug-coverage for patients as they move between provinces. I monitor drug therapy with lab tests and investigations and the consults of specialists. I facilitate plans for backordered medications. I help to manage chronic disease states like diabetes, hypertension, dyslipidemia and osteoporosis in the setting of complex immunosuppression and multiple drug interactions. I keep an eye out for new literature publications that impact in my practice area and my inter-professional team, and for public media reports that raise questions for my patients. I teach at the Faculty of Pharmacy, and give presentations for local colleagues and at national conferences. I formed a network for colleagues in my practice area to share ideas and problems. I participate in research projects.

Patients have become my patients – and I have become their pharmacist. Time seems to be the key ingredient: having a listening ear and having the opportunity to spend time with a person or on an issue has built trust and relationships. I work hard to determine their health goals and priorities, and to explain why they might need to consider other health issues to be more important. Some patients have my direct phone number or my email address and forward questions between their clinic visits. They value my explanations of the disease states behind their lengthy list of medications and the time I spend investigating new natural products. They appreciate my efforts in tracking down a source for forgotten medications in Vancouver, Calgary, Toronto and even Germany. They bring baking and chocolates for the holidays and we share updates in each other's lives.

The renal transplant clinic is the best of so many worlds: access to tests, results and information for monitoring, a close working partnership with other health care professionals, and ongoing relationships with patients to achieve their long-term health goals.

Other leaps of faith took me to the tiny country of The Gambia in West Africa to work with a non-profit group, Christian Volunteer Movement. Using holidays and leaves of absence, I have volunteered my time to work in the pharmacy department at the country's main referral hospital and to facilitate experiences for other volunteers since 2006. I have provided in-services and taught new pharmacy staff – including the inaugural class of Gambian pharmacy technicians in 2011. The hospital's access to medications is sometimes limited and inconsistent. To optimize the use of medications, I have worked with local staff to reorganize their main storeroom (including building shelves), encouraged the implementation of new stock distribution processes and evaluated their overall inventory management on a regular basis.

Undergraduate pharmacy students have joined me in The Gambia. Building on past collaborations, they have taught, observed and offered suggestions for improving the dispensing process and worked with staff at The Gambia's national pharmaceutical stores. I am always looking for people who would consider joining me in future trips. (People outside of the health field are welcome too!)

I truly enjoy returning and reconnecting with my 'adopted' Gambian family, friends and colleagues. I work beside them, respecting their expertise in their culture and work environment. It has resulted in a partnership that I can continue to build into, and the opportunity to be a part of some incredible African families. My time in The Gambia was recognized in November 2011 when I received Pharmacy Practice's *Commitment to Care and Service Award for Charitable Work* in 2011 (read more at http://bit.ly/z1UIli).

As a pharmacy student, I was shown the varied roles and positions a pharmacist could have. On one hand, they were all pharmacists; on the other, the possibilities seemed endless. As a hospital pharmacist in a specialized role and with an international practice, those possibilities have come true. But I am now a pharmacist who, like all of us, is called to serve my patients and community to the best of my knowledge and ability.

MANITOBA PHARMACY CONFERENCE
Winnipeg Convention Centre
April 20th to 22nd, 2012

FRIDAY APRIL 20, 2012

12:30-7:00 pm	Registration Desk Open	2nd Floor Lobby
1:00-2:00 pm	Session A - The Evolution of Pharmacy Practice in Canada: The Future is Here	Pan Am
2:00-3:00 pm	Session B - QT Prolongation	Pan Am
3:00-3:30 pm	Refreshment Break	2nd Floor Lobby
3:30-5:00 pm	Session C - Controversy Vaccination	Pan Am
5:00-7:00 pm	Wine & Cheese Reception/ Young Leaders Award Presentation	Room 2E

SATURDAY APRIL 21, 2012

8:00 am-7:00 pm	Registration Desk Open	2nd Floor Lobby
8:30-9:00 am	Continental Breakfast	Pan Am
8:30 am-3:30 pm	Pharmacy Technician Program	Millennium
9:00-10:00 am	Manitoba Pharmacy Conference - Annual General Meeting	Pan Am
10:00-10:30 am	Refreshment Break with Exhibitors	Room 2EF
10:30-11:30 am	Manitoba Pharmaceutical Association - Annual General Meeting	Pan Am
11:30-1:00 pm	Buffet Lunch with Exhibitors	Room 2EF
1:00-4:30 pm	Issues Forum	Theatre Room
	Open Discussion	
	Topic 1 - Cardiopulmonary resuscitation (CPR)	
	Topic 2 - Pharmacy Practice: Where are we going?	
	Topic 3 - Military Pharmacists	
2:45-3:15 pm	Refreshment Break with Exhibitors	Room 2EF
6:00-7:00 pm	Reception & Silent Auction	Pan Am
7:00-11:00 pm	Annual Awards Banquet	Room 2GH

SUNDAY APRIL 22, 2012

8:30 am-4:00 pm	Registration Desk Open	1st Floor Lobby
9:00-9:30 am	Continental Breakfast	1st Floor Lobby
9:30-5:00 pm	Principles for Provision of Methadone by Manitoba Pharmacists	Room 11-12
9:30-11:45 am	Concurrent CE Sessions	Room 3
	Session D1 - The Baby Boomers	
	Topic 1 - Drug Safety & Effectiveness Network	
	Topic 2 - Prostate Cancer: New and Upcoming Treatment Options	
	Topic 3 - Topic 3: Emerging Evidence to Manage your Menopausal Patients	
	Session D2 - Helping You Help Your Diabetes Patients	Room 2
10:30-10:45 am	Refreshment Break	1st Floor Lobby
11:45 am-1:30 pm	Manitoba Pharmaceutical Association Awards Luncheon	Room 4-5
1:30-3:00 pm	Concurrent CE Sessions	
	Session E1 - Pharmacists without Borders-Canada and the Mission in Uganda	Room 3
	Session E2 - Preceptor Workshop	Room 2
3:00-3:15 pm	Refreshment Break	1st Floor Lobby
1:30-4:30pm	Welcome to the Profession: Student Preparation	Room 8-10
3:15-4:30 pm	Session F - Headline News for Pharmacists	Room 3
	Topic 1 - Marketed Health Products Directorate	
	Topic 2 - New Canadian Injection Recommendations for Patients with Diabetes	
	Topic 3 - Calcium Does a Body Good?	

Understanding Your Insurance Needs

Temporary coverage versus Permanent coverage

Depending on an individual's needs, desires, and health condition, there are many types of insurance available. It is important that you understand how insurance can play a vital role in your overall financial plan.

Term Insurance is used to provide coverage for temporary situations. With term insurance, your premiums only pay for the cost of the insurance. There is no savings component or cash value. As a result premiums are lower than comparable permanent insurance policies. If you stop paying premiums, coverage ceases. Term life products often have increasing premiums every 10, 20, or 30 years. The older you are the more astronomical the cost.

Permanent Insurance has a built in savings component that lasts until the policy owner's death. This cash value can pay premiums if the need arises. Permanent insurance is used to pay for estate taxes, funeral costs, and other expenses at time of death. Some individuals may desire to leave money to a charity, and permanent insurance can fund that. The most attractive feature of permanent life insurance is the cash value that can accumulate over the policy's life.

Advanced Planning Strategies Using Life Insurance

Life insurance is often used for complex estate planning strategies, such as business buy-sell arrangements and "key person insurance." In a buy-sell arrangement, the insurance is designated to enable a surviving business partner to buy out a deceased partner's interest. As a result, the surviving partner is free to continue to operate the business and the deceased's beneficiaries receive their interest in the estate without being tied to a business in which they have no continuing interest.

Disability and Critical Illness Insurance

As professionals earning a high income, it is vital that you protect your income earning potential in the event you become disabled or critically ill. Disability insurance provides a tax-free monthly benefit between 60 and 70 percent of your salary. Critical illness insurance will pay a lump sum benefit if the insured is diagnosed with a listed critical illness and survives a waiting period that is usually 31 days. This benefit is paid tax-free.

Insurance is an important part of any financial plan. If you have any questions and wish to learn more about life insurance, disability insurance, and critical illness insurance, please contact me for a free no obligation appointment to discuss your options. Alternatively, go to **www.ozturkinsurance.com** to get a free quote.

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OZTURK
FINANCIAL SERVICES
ADVANCED WEALTH STRATEGIES

Community-Acquired *Clostridium difficile* Infection – Increasing Prevalence, Increasing Concern

GRACE FRANKEL
B.Sc.(Pharm.)
(PharmD Candidate)

Introduction

Clostridium difficile infection (CDI) usually presents as a nosocomial infection characterized by profuse watery diarrhea secondary to colonization of the GI tract post broad-spectrum antibiotic therapy. This can progress to fulminant colitis, perforation or toxic megacolon if not treated appropriately and in a timely fashion. (1)Surprisingly, in recent years, outbreaks of *C. difficile* infection have been more prevalent, more severe, and more resistant to standard treatment with a greater likelihood of relapse. This has contributed to a significant rise in morbidity and mortality associated with this infection. (2)In addition, it has been recognized that *C. difficile* infection is not limited to nosocomial settings such as hospitals and personal care homes, but has now reached outpatients in a community setting. The following article will touch on epidemiology, risk factors, treatment response from selected studies and possible explanations for emergence and strategies to prevent *C. difficile* infections.

Epidemiology

A retrospective, population-based study conducted in Minnesota between 1991 and 2005 set out to investigate the epidemiology of community acquired *C. difficile* using medical records and the International Classification of Diseases codes (ICD-9) recognizing patients with *C. difficile* associated diarrhea. (3) (4) Definite *Clostridium difficile* infection (CDI) was defined as ≥3 loose stools in a 24 hour period with a positive stool toxin assay or the presence of pseudomembranous colitis on endoscopy/histology. The authors found 385 cases that qualified as "definite" CDI and were included for statistical analysis. The median age was 67.6 years and approximately 65% of patients were female. Out of the 385 confirmed cases, 41% were considered to be community-acquired. Eighty-seven percent of all cases had a positive history of antibiotic exposure in the 90 days preceding diagnosis.

Risk factors

Patients presenting with community-acquired *Clostridium difficile* infection may not have traditional risk factors. Traditional risk factors associated with nosocomial *C. difficile* infection include age >65 years, previous antibiotic exposure, antineoplastic medications, length of hospital stay, GI procedures, immunosuppression, underlying illness and use of proton pump inhibitors (PPIs). (1)

From the same study mentioned previously, the authors divided the confirmed cases of CDI into community-acquired and hospital-acquired to compare patient characteristics and found the following: (3) (4)

As illustrated, patients with community-acquired CDI tend to be younger with less co-morbid conditions. Antibiotic exposure and acid suppression seem to be less of contributing factors. Patient populations considered being low risk such as young adults and children were shown to be at higher risk of community-acquired CDI.

Characteristic	Community acquired (n=157)	Hospital acquired (n=192)	P value
Age, median	50	72	<0.001
Antibiotic exposure	123	181	<0.001
Acid suppression	35	90	<0.001
Mean Charlston Comorbidity Index	1.3	3.3	<0.0001
Malignancy	26	61	<0.0001

Treatment Response

The mainstay for treatment of CDI is metronidazole 500mg Q8h for 10-14 days as initial therapy for mild disease whereas more severe disease (significant fever >38.3°C, WBC >15000cells/μL or sCr≥1.5 times the premorbid level) can be treated with *oral* vancomycin 150mg QID for 10-14 days. (1)Oral vancomycin should be reserved due to cost and risk of development of vancomycin-resistant bacteria. For ileus or megacolon due to CDI, intracolonic vancomycin plus intravenous metronidazole is required.

In terms of efficacy in patients with community-acquired CDI, metronidazole and vancomycin were used in 84.7% and 9.6% of cases respectively. There were no significant differences in treatment failure between the two agents (21.8% versus 6.8% respectively, p=0.12). (3) Therefore using metronidazole as first-line therapy in community-acquired CDI is acceptable.

Explanations for Emergence

Increasing virulence – a hypervirulent strain (NAP1/B1/027) of *C. difficile* has been identified as the culprit causing several CDI outbreaks since 2000. This strain produces binary toxins (unique to this strain), larger amounts of toxins A and B and a resistance to fluoroquinolones. (5) *C. difficile* itself is easily spread by the fecal-oral route by

ingesting spores that are extremely resistant to normal hospital decontamination procedures. To effectively kill spores, a 1:10 solution of bleach and water must submerge the spores for a minimum of 10 minutes before the spore is neutralized.

Host factors: carriers –it has been postulated that the increase in community-acquired CDI is associated with patients who are *carriers* of *C. difficile*. Patients who have been discharged from hospital may carry the infection and spread it within the community, even if they do not have sign and symptoms themselves. (6)

Strategies to Prevent Infection

Surveillance – Since community-acquired CDI is somewhat of a new topic, surveillance for these infections has begun in recent years. (6)Once the true epidemiology is known and possible sources identified, risk factors can also be appropriately identified and strategies for prevention can be employed.

Infection control – hand hygiene and contact isolation are mainstays of dealing with patients who have CDI. As alcohol hand-sanitizers are not sporicidal, frequent hand washing with soap and water is recommended.(1)

Probiotics – currently, the use of probiotics is not officially recommended for the prevention of CDI. However, several mechanisms have been proposed as to the possible benefits of probiotics. Post broad-spectrum antimicrobial therapy, probiotics may be administered to re-colonize the gut with "good" bacteria to prevent colonization with *C. difficile*. Probiotics may also have a role in intestinal barrier protection and immunomodulation, again discouraging the colonization of *C. difficile*. (7)

Vaccinations – several clinical studies have demonstrated that having high levels of antibodies against *C. difficile* toxins is associated with protection against infection. The CDC has been partnering with vaccine manufacturers to develop a vaccine to prevent CDI. Both oral and injectable vaccines are being studied for this purpose. Potentially, this vaccine could be given to patients with scheduled procedures or those that are currently residing in personal care homes in the event of an outbreak. (6)

References:

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Dividends: income and stability for your portfolio

Equities have a history of providing positive returns over the long term, but in the short term, it's nice to have investments in your portfolio that can generate steady income — even if the market is not rising. Bonds are often relied upon for tried-and-true income generation, but dividend-paying stocks offer compelling advantages of their own.

For one thing, they allow you to participate in the growth of the market with less risk than other equities. Whereas non-dividend-paying stocks need earnings growth and investor optimism to support their price, the prices of dividend-paying stocks are usually supported by their own quarterly dividends.

When the price of a dividend-paying equity falls, its dividend yield rises, which tends to attract buying interest from income-seeking investors. Indeed, this phenomenon helped some dividend-paying shares outperform their non-dividend-paying counterparts over the past year.

Another powerful benefit of dividends is the potential for generous after-tax returns. Interest income is like employment income—every dollar is taxed at your full marginal rate. Dividend income, on the other hand, is eligible for a Dividend Tax Credit when it is received from a Canadian corporation.

As a result, an interest payment and a dividend payment of the same amount before tax will produce two very different outcomes after tax. Based on the 2009 top marginal tax rate* in Ontario, an investor who earns $10,000 in interest will keep only $5,359, while an investor who earns $10,000 in dividends will keep $8,583. This can make a very big difference, especially if you rely on your investments for retirement income.

How to choose a dividend-paying stock? In general, you need to select companies with attractive dividend records and strong underlying fundamentals, including a proven history of dividend growth, solid earnings, and favourable industry conditions. For example, companies in highly regulated industries, such as utilities, tend to have predictable cash flow and reliable dividends.

Consider preferred shares

Preferred shares are a special class of dividend-paying stock. Although they are considered equities, they have a par value and their dividend rate may be fixed, which gives them bond-like attributes. Preferred shares are considered "preferred" due to the fact that their dividend must be paid to shareholders before a common stock dividend can be paid.

What are the risks?

Here are some of the risks we can help you manage:

- Interest rate risk – Similar to bonds, preferred shares tend to fall in price when interest rates rise.
- **Credit risk** – The credit rating of a preferred share issuer can change over time.
- **Call risk** – Some preferred shares can be "called in" by the issuer and converted into cash or common shares.
- **Liquidity risk** – Preferred shares generally attract fewer buyers and sellers than common shares.

Preferred shares offer a number of advantages:

- **Stable income** – Preferred shares provide consistent dividend income along with certain guarantees that aren't available from regular dividend-paying stocks.
- **Financial strength** – Preferred shares are generally issued by companies with strong cash flow, and their creditworthiness is monitored by independent rating agencies.
- **Potential for capital gains** – In the current risk-averse market environment, some high-quality preferred shares have been discounted, creating the potential for capital gains once the market regains its equilibrium.
- **Tax-advantaged returns** – Dividends from Canadian corporations are taxed at a considerably lower rate than interest income.

When it comes to preferred shares, one size certainly does not fit all. They are issued by a diverse array of companies in a variety of industries, and can include complex features. For example, they might offer a fixed or floating dividend rate, come with or without a maturity date, and may or may not be converted by the issuer into cash or common shares at a future date.

It's important to discuss your specific needs and goals with an advisor who can analyze your situation and present you with well-reasoned recommendations. It's certainly worth a conversation, as preferred shares have shown tremendous resilience in volatile markets and can offer predictable, tax-advantaged income quarter after quarter.

Please get in touch with your Scotia McLeod advisor to discuss your portfolio, or to request additional research and information on dividend-paying stocks.

*Rate as at May 2009 is 46.41%.

Pharmacist, Say What??

Let's set the scene. At a medical conference in January in Boca Raton, the palm trees outside the window were swaying gently in the breeze, easily seen from the conference room. Filled with about 150 practitioners from around the world, 95% were MDs; cardiologists, gastroenterologists, other specialists. 5% were pharmacists.

TARA MALTMAN-JUST

Despite the tempting view, the group was focused on the presenter sharing the latest in the innovative field of metabolic medicine. All of us were familiar with the topic and actively practicing in this area. The speaker divided the room into small groups of twenty to review patient histories and labs, then report back to the whole group on a treatment plan.

Fast forward ahead. The room gradually quiets as several of the small group representatives take the stage to share their plan. What a treat - one of the speakers is a pharmacist. I'm enjoying the vistas and the engaging topics, when the pharmacist begins his presentation in a matter-of-fact, non-jovial tone "You'll have to excuse me. I'm slow, because I'm only a pharmacist".

The sun seems to fade away and the ocean waves become still as I aim to grasp what was just said. Was he joking? No one laughed. I certainly didn't. And then I realized, he was serious. Just as distressing, few in the room seemed startled or fazed at all by the comment. Not knowing what to do, I manage to muster a faint "heyyyy!".

This series of events got me thinking about a pharmacist's self-image.

The Wikipedia definition says that self-image may consist of three types:

1. Self-image resulting from how the individual sees himself or herself.

2. Self-image resulting from how others see the individual.

3. Self-image resulting from how the individual perceives others see him or her.

But is the self-image represented by the pharmacist above due to how (1) he sees himself, (2) reinforcement from other practitioners or (3) paranoia about the long-standing stigma of the medical hierarchy? Or, does it even matter?

Although I hate to admit it, an episode of Millionaire Matchmaker recently featured a pharmacist as a key prospect for the 'millionaire'. When asked her job, she replied "I count pills". Even though this character was questionable from the start (have you seen the show?), I'm sadly confident that this is not the first time you've heard this response from a colleague.

Within our own profession, we may see disparity among hospital-community-industry or rural-urban settings, segregating ourselves without meaning to do so.

It's also not uncommon for a pharmacist to refer to a doctor as 'the one in charge', but even that is evolving. Many provinces now support prescribing rights for pharmacists and a collaborative care setting. More pharmacists are taking on purely clinical roles. And other practices like ours even get referrals from multiple doctors throughout the province.

As pharmacists, we're all individuals with unique skills. We're at various stages in our career. We have different clinical experiences and different practice environments. But it is these differences that allow us to share and learn from each other within our profession. Since every profession houses these components, these differences can actually unite us with colleagues in other disciplines as well.

Although it seems that at times we can be our own greatest enemy, we are collectively our greatest asset. When we band together, we strive for respect and recognition of the value any pharmacist provides. When we come together as pharmacists, we can celebrate our diverse skills while communicating a common message: the realization of our potential to impact patients' lives as a critical component of the health care team.

Let's use the Manitoba Pharmacy Conference to restore that sunrise and continue to bring the breeze back into the sails of the pharmacist profession.

Acting Executive Director's Update

In an effort to keep the membership informed and engaged with the work of MSP, the *Communication* Committee requested that an update from the MSP office be provided in the form of an article submitted by the Executive Director. The last two issues have included this feature and as Acting Executive Director, I am pleased to be able to continue this important function and offer the membership an informational update.

As members are likely aware, the biggest change that occurred recently is a change in senior management. Scott Ransome, who served as Executive Director for over ten years, is no longer with the organization. The staff and Board of Directors thank Scott for his years of service to the organization and wish him success in his future endeavors. In light of this development, I was appointed Acting Executive Director and I would like to thank the Board of Directors for their trust and confidence in my abilities to take on this role.

JILL ELL

While the decrease in the number of staff has resulted in an increased workload, I am pleased to report that all staff have responded as a team and are working cooperatively to identify priorities and ensure timelines and deadlines are met. The MSP office is very fortunate to have Sara Gusta, our full time administrative assistant who is a very quick study and is willing and ready to take on whatever new challenges are sent her way. Bonita Collison, who has assumed the role of Communications Officer in 2011 in addition to her other responsibilities has been very flexible and accommodating, assuming whatever tasks are assigned to her to the benefit of the Society. It is the goal of the MSP office staff to ensure that the office functions effectively and efficiently during this time. The MSP Board of Directors has been very supportive during the transition period and will address the search for a permanent Executive Director in the coming weeks.

MSP is pleased to present the 2012 Annual Manitoba Pharmacy Conference at the Winnipeg Convention Centre from April 20 to 22. MSP Director of Conferences and Events, Marnie Hilland has been working with the Conference Planning Committee to put together an excellent weekend experience including a first class educational program, fun and engaging social events and an opportunity to celebrate the achievements of colleagues during the awards presentations.

The MSP office plays a key support role with regards to the conference, ensuring that print deadlines are met, circulating Conference registration materials, processing registrations of sponsors, exhibitors and participants, organizing silent auction items and many other tasks to ensure the success of the event. We are looking forward to an exciting and educational conference.

With the MPhA Legislature Proclamation Component Development Project currently underway, the MSP Government Relations Committee will once again be focused on Bill 41 and passage of the regulations. MPhA has provided a detailed project management plan that includes a revised Code of Ethics that must be passed at the MPhA Annual General Meeting, the development of Practice Directions that need to be finalized prior to enactment of Bill 41, the introduction of a revised Discussion Document that will require member approval through a vote, and changes to the Bylaws. The MPhA has outlined a very ambitious timeline for this process and the MSP Government Relations Committee will be actively engaged throughout the process. The Bill 41 area of the MSP website is updated regularly and is a useful tool to keep members informed.

Communication Plus has increasingly become the method used to get important information in the hands of the membership in a timely fashion. Whether the information that needs to be communicated is in regards to the Public Relations transit advertising campaign, or a new agreement for providing professional pharmacy services negotiated by the Economics Committee, or the MPhA Legislature Proclamation Component Development Project or the Annual Pharmacy Conference, *Communication Plus* is the best method to stay informed about the work of MSP.

When I started with the MSP in 2004 there were five active committees comprised of Communication, Membership, Economics, Insurance and Professional Relations. Since that time we have seen the addition of the Government Relations, Pharmacare, Good Governance and Public Relations committees. The work of MSP continues to evolve to the benefit of MSP members. Each of these committees has been very active during 2011 and an individual summary report for each committee will be included in the MSP Annual Report. The 2012 Annual Report will be posted to the MSP website prior to the Annual General Meeting which will take place on April 21, 2012 at 9:00 am the Winnipeg Convention Centre. A link to the Annual Report will be included in *Communication Plus*. To find out more about the work of each of the committees, members are encouraged to review the Annual Report.

I am pleased to take on the Acting Executive Director position and look forward to working with the MSP Board of Directors, members and MSP staff and stakeholders in this capacity. The next few months should prove to be interesting, challenging and, I am sure, never boring….

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The Expectation Effect – Why Anticipation of a Cure can be Good Medicine

The pharmaceutical business depends on the widespread belief that drug therapy is about molecular biology. Increasingly, however, it appears that part of the therapeutic results of taking prescribed drugs lies in what can be called the "expectation effect," formerly called the placebo effect, but now in need of redefinition.

Numerous studies have shown that placebos work well when patients believe that they will. In the past, this phenomenon was dismissed as form of gullibility on the part of some patients, self-deceit in others. The faithful went to religious shrines such as Lourdes and, in due course, some got relief of symptoms. Others just took their medicine and hoped for the best.

ANDREW ALLENTUCK

Touching religious relics has produced documented "cures," though perhaps less often than taking aspirin for a headache. On a physical basis, the association of a saint's preserved finger with a remission of illness has to be dismissed. There is no way to connect the relic in a glass case and the cure. Nor is there a threshold for what constitutes a cure. Successful outcomes, usual rare, were anecdotal; by definition they are isolated from trend lines. Unsuccessful outcomes were in the past treated as examples of lack of faith but not tracked. Paradoxically, lack of belief may have been a valid explanation for the inefficacy of the proposed cure. Today, however, we can see the anecdotes as a process in which the anticipation of relief fulfills the expectation.

The oddity that a placebo or a substance such as a religious relic can heal can be explained as a process of time in which the "cure" itself is irrelevant. Thus people get over colds whether they pray for a cure or not. Similarly, bizarre wart therapies often work because, left alone, a lot of warts just go away. One old wart cure for what is usually a transitory lesion involved wearing a toad in a bag around the afflicted person's neck. Alternatively, the toad would be rubbed on the wart, then mashed onto a thorn to die. As the dead toad dried up, so supposedly would the wart. The toad's fate and the lesion are unrelated. But belief in the toad cure nevertheless has a correlation with wart recovery because many warts go away of their own accord. The idea that a placebo or an herbal tea or acupuncture works is merely the observation that the treatment came before recovery. In fact, the phrase the "time heals all" is often more accurate. Time thus makes an inert drug efficacious.

Research into the placebo effect has redefined what medical writer Michael Specter has called "the power of nothing." A former *New York Times* reporter, he is now a staffer for the *New Yorker*. In a report in December, 2011, he reviewed the cases of soldiers gravely wounded in World War II who rejected morphine for levels of pain in cases in which civilians with less severe pain would have demanded relief. The reason – pain was an affirmation that the soldier was alive. The wounded accepted it as a good thing, not bad.

Today, the phenomenon that profound pain can trigger pain relief is linked to endorphins, the idea that the brain produces its own pharmacy. Indeed, as Specter reports, in one experiment, patients with severe pain given placebos were separated into two groups – those who responded to the placebos and reported less pain and those who got no relief from the placebos. When a drug, Naloxone, created to latch onto and thereby block opioid receptors in the central nervous system, was given to those responding positively to placebos, they began to feel pain again. Conclusion – endorphins produced by people who expect relief account for the benevolent effects of some placebos.

The idea that expectation produces its own relief has been found in the use of Valium. "Diazepam has no discernable effect on anxiety unless a person knows he is taking it," Specter reported. That finding, together with numerous tests on what patients want from drugs, has produced the result that name brand drugs are more effective than generics, blue pills help people sleep better than red pills, large pills have a stronger placebo effect than small pills, capsules have a stronger expectation effect than tablets, injections work better than capsules or tablets and the expectation of relief from a drug does not work when a patient, such as someone suffering from Alzheimer's, is incapable of anticipating the future.

The expectation of relief does not invalidate any chemical or physical therapy. After all, without the therapy and the associations of doctors' officers, dental chairs, the psychiatrist's couch, drug dispensaries and the other

apparatus of the health professions, the expectation effect would not take place. As well, some drugs, such as antipsychotics, have been labeled chemical straightjackets. Their power to sedate, as well as their links to powerful adverse side effects such as strokes, has nothing to do with expectations. These drugs clobber feeling, sensation and thought.

The expectation effect can nevertheless be linked to therapies that do not lend themselves to precise measurement of inputs and outcomes or even of physical observation of phenomena, e.g., cures by alternative healers, witch doctors and practitioners of Freudian and other talk therapies. Thus waving a chicken at a person may have a physical effect for someone who believes in voodoo, just as a 45 minute chat with a psychoanalyst may provide relief to a patient who thinks it will. That no one has even seen an "id" or a "superego" or can quantify either is beside the point. If belief in a cure works, then it is a valid therapy. That the therapy lacks a physical or chemical explanation does not invalidate it. As well, chemical treatment of dissociative states in psychiatry such as children's inattention in class (maybe the lesson was dull?) produce confirmable results that can be understood as expectation of the future and even observer's bias. After all, if you pay for a cure, you want to see it. And, often, what you want, you get.

manitoba society of *Pharmacists*

ANNUAL GENERAL MEETING

April 21, 2012
9:00 am
The Winnipeg Convention Centre
375 York Ave., Winnipeg, MB

Members who wish to receive an advance copy of the Annual Report, please contact the MSP office at 956-6681 or 1-800-677-7170 prior to April 6, 2012 and a copy will be mailed to you.

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