

Medical Connections

Information For Physicians and Clinical Teams Practising at Fraser Health



Physicians play key role to improve hand hygiene

“We get busy, we get distracted. We're thinking about risks with respect to procedures we're going to do, etcetera. Sometimes we forget; we'll walk into a room without hitting the gel dispenser, and by then we're deep in the room,” says Dr. James Zacharias, a hospitalist at Ridge Meadows Hospital.

On paper, the concept is simple and obvious: clean your hands before and after contact with a patient or patient environment, before an aseptic procedure, and after exposure to bodily fluids.

Even so, audits show that in the last quarter of the 2010/11 fiscal year,

Fraser Health doctors, nurses, clinical and other staff complied with hand hygiene guidelines 35 per cent of the time, with physicians typically having the lowest compliance of all groups. While this is an improvement over the 26% compliance in the previous year, there's still much work to be done.

Each year in Canada, hospital acquired infections (HAI) affect one out of nine patients admitted to hospital and result in 8,500 to 12,000 deaths. “We all need to be re-educated about hand hygiene,” said Dr. Zacharias, a physician who champions hand hygiene in Fraser Health.

The most common reasons why

clinicians don't comply with hand hygiene can include lack of knowledge, skin irritation, or understaffing. Infrastructure is another typical barrier. While new buildings have built-in infection-control measures with greater access to sinks and more private patient rooms and bathrooms, the cost to retrofit some existing facilities without these features can be very costly.

Dr. Zacharias believes one of the key reasons for physicians' non-compliance is that they are extremely busy with so many other details.

“We need to learn to incorporate this into our work day. It just takes a little bit of thought and maybe a reminder now

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Perspectives

by Dr. Andrew Webb,
VP of Medicine, Fraser Health

Fraser Health summit on physician supply and demand

As a health authority that is home to 1.6 million people, Fraser Health is the largest Health Authority in British Columbia. Due to the size and diversity of the population of the region, Fraser Health is a microcosm for the issues faced by both urban and rural areas in BC, and across Canada. As population demographics change, access to physician human resources is an issue that is growing in importance and public profile.

In the interests of exploring the potential for solutions to physician human resource issues, Fraser Health is hosting a two-day Summit this September 27 and 28 to share expertise and knowledge and contribute to a realistic solution to a problem that health authorities face around the world.

The Summit - Medical Makeover: Redesigning Physician Services for

Tomorrow's Health System - will bring together clinical, administrative, academic and policy leaders from across the province and country.

The Summit will review the evidence and explore key issues related to physician human resources in seven theme areas:

- (a) preparation/education and training;
- (b) supply and distribution;
- (c) recruitment and retention of physician human resources;
- (d) drivers of demand for physician services;
- (e) modulating demand for physician services;
- (f) interdisciplinary professional practice and
- (g) physician productivity and performance.

This is an important opportunity for Fraser Health to lead policy on balancing the supply and demand for physician services. ▲

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and then," says Dr. Zacharias, who carries hand sanitizer in his pocket.

In an article about hand hygiene adherence published in the *Pediatric Critical Care Medicine* journal, 2009, James Schneider noted that, "Hand hygiene adherence is influenced by the behavior of role models; senior healthcare practitioners should consider the important role they play in reinforcing or weakening a culture of patient safety and proper HH (hand hygiene)."

"It has to start somewhere," Dr. Zacharias noted. "Doctors are regularly leaders in the health field, so being leaders of hand hygiene is a natural outgrowth of that. We need to step to the fore and demonstrate that we're serious about it, and model it for others in health care." ▲



Hand Hygiene Program Project

As a result of Fraser Health's growing focus on hand hygiene in recent years such as in-house as well as public education, and improved access to alcohol-based hand rub, compliance in the last quarter of the 2010/11 fiscal year has increased 9 per cent from last year.

Physician champions such as Dr. Zacharias and the Regional Department Head for Surgery, Dr. Jean Lauzon, are helping to spread the hand hygiene message as part of Fraser Health's strategy to increase HH compliance, and ultimately reduce infection rates. The goal of course is to improve patient and staff safety throughout the health authority.

Specifically the new Hand Hygiene Program Project through Infection Prevention and Control, will work toward establishing a comprehensive region-wide hand hygiene program by 2012 with 100 per cent compliance. Objectives for this year include addressing policy and practice guidelines, professional development, audits, reporting, sustainability and program evaluation. Barriers to compliance in Fraser Health will also be identified and addressed.

Fraser Health is not alone in its focus on hand hygiene. Health care providers throughout North America are promoting hand hygiene as a cost-effective response to increasing rates of HAIs (hospital-acquired infections) and antibiotic-resistant bacteria. Fraser Health is a member of a Provincial Hand Hygiene Work Group in BC that is developing provincial guidelines and a standardized audit tool to publicly report hand hygiene rates.

"We need to learn to incorporate this into our work day."

"There is now scientific information about what works and what doesn't work," says Dr. Zacharias. "Of all the things we struggle with, hand hygiene is something that can make a relatively large difference, without new technology or a new budget item. It's just doing what we know to do, and doing it more consistently."

Hand Hygiene Facts

- *Clostridium Difficile* Infection (CDI or c.diff) is a sticky spore that can live for six to eight months. Thoroughly washing hands with soap and water is a required preventive response.
- It is estimated that compliance with hand hygiene guidelines can prevent 30 per cent of HAIs.
- More than 220,000 cases of HAIs occur each year in Canada, resulting in 8,500 to 12,000 deaths.
- Gloves have a six per cent failure rate. Hands should be washed both before and after gloves are worn.
- Audits show that Fraser Health doctors, nurses and clinical staff had a 35 per cent compliance with hand hygiene guidelines in the last quarter of the 2010/11 fiscal year, up nine per cent from 2009/10. ▲



What physicians need to know about Patient Safety Reviews

You may feel some discomfort at first, but when it's over you'll feel much better.' That's a familiar aphorism you've likely expressed to countless patients over your career. Ironically you may want to say that to yourself if you're ever called to attend a patient safety review.

Dr. Roy Morton, Executive Medical Officer at Fraser Health who has sat in on several patient safety reviews, says that there was a time when mention of a patient review could send a physician running to the Canadian Medical Protective Association (CMPA) for advice.

"The medical community has been a little reluctant to get involved in these reviews because historically the CMPA told them not to say anything to anybody," Dr. Morton explains. "Also, I think it's simply human nature not to want to stand up in front of a group of people when there's been a negative outcome."

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But attitudes have changed, and today the CMPA encourages physicians to participate fully and openly in patient safety reviews, as long as they are properly structured and conducted.

Dr. Brian McGowan, who recently stepped down as medical lead on patient safety reviews at FH, has served on more than 40 PSRs, and says the entire process has developed and evolved to become more sophisticated over the last six years.

He says the reviews are handled "with an integrated humanist approach" that gives greater acceptance and openness for the people involved as well as "transparency at the internal level."

"If it's a case review with a number of people in a conference, the rules of engagement are established which articulate the need for respect, and acknowledgment that everyone's voice

needs to be heard," says Dr. McGowan. Those voices can include anyone on the clinical team, as well as FH employees who at some point were involved in the care path of the patient. It can also include reports from patients and families who in some cases have started the process to begin a patient safety review. The steps that lead to a patient safety review are many, Dr. McGowan explains, and involves careful consideration of facts to determine if an adverse event can be dealt with through medical managers and directors, and other means of resolution. If the situation is more complex, the patient safety review is then commissioned for a more thorough investigation of the case in question.

Dr. Morton says that patient safety reviews are not focused on reviewing the performance of a single individual on the clinical team, but other factors that involve system errors, and practical problems that can be fixed without causing significant changes or costs. "You want to determine 'What was the root cause? What were contributing factors?'" explains Dr. Morton. "Could it be a clear-

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cut isolated issue, such as post op infection? Or a more complicated one that crossed over several disciplines and professionals? Were the

resources in place? Was there an issue of access to the system? We have to put all these pieces together. It's all part of an education. In fact the patient safety review is specifically designed not to be intense and difficult for people. But human nature is human nature and so they can be difficult for some people," he concurs. "However, it's my observation that although it can be very stressful going in to a patient safety review, going out there is far greater appreciation and understanding that the process was in fact educational, and not there to crucify anyone."

When an error occurs that directly or indirectly causes an adverse event, often it's in whole or in part due to a breakdown in communication along the continuum of care. And for that reason alone, patient safety reviews can be enormously helpful because improvements can be made with simple changes such as enhancing communication processes.

FH Regional Department Head of Obstetrics and Gynaecology Dr. Peter Beresford, says, "I think the physician has to realize that a patient safety review is not a reflection on them, but how as a team we can provide better care. If we don't participate in these reviews, a significant portion of physicians' input will be lost."

To read Part 2 of Patient Safety Reviews go to <http://physicians.fraserhealth.ca/> or look for it in the next issue of Medical Connections. To review FHA policies and guidelines on patient safety reviews, go to [FH Patient Safety Reviews](#). ▲

Fraser Health employees reduce medical waste



(L-R) Tamira Burton and Sandra Betker of Burnaby Health Unit

For many employees Earth Day was not just a one-day event. Although the annual Earth Day has grown so much that an estimated 6 million Canadians join 500 million people in over 180 countries to stage events and projects to address local environmental issues, there are sustainable activities going on every day of the year at Fraser Health.

For example, Tamira Burton, a public health nurse at the Burnaby Health Unit (BHU), says there are dedicated and passionate nurses who have inspired her to get involved in medical waste recycling, and she is more than happy to contribute any way she can.

"We can see the extent of the waste and the potential for recycling and we know it's going to blossom and grow and get bigger throughout the health authority," says Burton.

Following a recent vaccination blitz at local schools, for example, the BHU was able to recycle 11,000 plastic vials for safe disposal at the municipal recycling depot.

"At first taking on recycling can seem like a daunting process," says Burton. "But we have incorporated it as a team effort and we can really see it blossoming." ▲



Trauma Centre at RCH Open for business 24/7

It could be a three-car pileup in Aldergrove leaving two passengers with life-threatening injuries being airlifted from the scene, or a 70-year-old New Westminster man falling off a ladder and rushed by ambulance after suffering a concussion, broken wrist and non-operative fracture to his pelvis. Whatever the serious injury, the Trauma Centre at Royal Columbian Hospital (RCH) will be waiting for it.

The Trauma Centre team is currently seeing more than 1,300 cases a year—but while RCH is treating more and more of Fraser Health's most severely injured patients, (patients with the most severe injuries have increased from 33 to about 36 per cent) mortality and length of stay numbers have declined since the program was officially established in 2008—from 13 days to 10. Mortality rates have dropped by about four per cent.

Physicians and specialists throughout Fraser Health refer patients to RCH's 24/7 Trauma Service through BC Bedline, and from there the well orchestrated trauma care service is activated.

“Dealing with multi-system traumas requires a specialized body of knowledge and diligent surveillance throughout the patient's recovery,” says nurse practitioner Kathleen Fyvie. “Our discharge planning starts the minute patients arrive. We plan on getting them home with the best outcome possible.”

Many of the Trauma Centre's patients are transported by air ambulance to RCH. Over the last five years, RCH has consistently received the highest volume of B.C.'s helicopter trauma patients, most of whom are flown directly from the scene. The Trauma Service then coordinates their care from admission (often the Emergency Room) through to the wards or specialty units, to discharge, or alternate care.

The Trauma Service has trauma surgeons and emergency physicians on rotation, as well as a nurse practitioner, a clinical nurse specialist, a regional medical director and a site medical director. In addition to emergency treatment, the service also provides detailed tertiary surveys to ensure no injuries are overlooked and coordinates

communication and treatment with the various specialists and interdisciplinary teams throughout the patient's hospital stay.

“We bring a coordinated and standardized approach to people with multiple injuries,” says Dr. Iain MacPhail, Medical Director for the Trauma Program. “That's very important for these patients, in that we have a system to make sure we don't miss other secondary injuries that can arise.” Complex patients under the care of the Trauma Service are assessed daily to ensure potential complications are recognized and prevented and analysts systematically enter data into the provincial Trauma Registry.

RCH and Vancouver General Hospital are B.C.'s only tertiary (level one) trauma centres among the province's network of 11 trauma centres. But Fraser Health continues to build its trauma capacity with the development of a Level Three trauma centre at Abbotsford Regional Hospital, and is preparing toward achieving full regional system-wide Trauma Accreditation in 2012. ▲

New cardiac clinics at Royal Columbian

The new Cardiac Clinics at Royal Columbian Hospital house both the Atrial Fibrillation Clinic and the Heart Function Clinic with room for more specialty cardiac clinics in the future. The clinic opened its doors to its first atrial fibrillation patients on October 18, 2010 and heart function patients in February 2011. The clinics are jointly sponsored by Fraser Health and Cardiac Services BC.

These clinics are staffed with a multidisciplinary team of nurse clinicians, pharmacists, dieticians, nurse practitioners, and cardiologists. The most current medical therapy, access to interventions such as cardioversions and ablations, and devices such as implantable cardiac defibrillators and cardiac resynchronization therapy are available for optimal patient care.

Group and individual patient education is provided on lifestyle modification, cardiac conditions, and treatment adherence. A personalized treatment plan is developed by the clinic staff in partnership with the patient.

The Cardiac Clinics welcome referrals. Call [604-528-5073](tel:604-528-5073) for information on the referral process. ▲



Another door opens for those withdrawing from substance abuse

People and their physicians in Fraser Health's eastern communities now have another option if they are seeking support programs designed for those wishing to withdraw from substance abuse. Fraser Health's newest substance abuse programs, Riverstone Home/Mobile Detox and Daytox Programs are available to both youth and adults.

In just eight months since these programs opened their doors, there is much evidence of resounding success from both the client and clinician perspective. Feedback from clients has been extremely positive, according to the program clinicians, who say clients report feeling understood, supported, respected, encouraged and empowered by what they are getting from these new programs.

The client-centered low barrier programs are community-based and operate seven days a week out of Chilliwack General Hospital. They are available to residents of

the Mission-Abbotsford and Chilliwack-Agassiz-Hope-Boston Bar regions who are physically and mentally stable, and do not require residential in-patient withdrawal management services.

A key to their success is the flexibility and diversity they offer. Clients can choose their preferred time and day, or which course best suits their needs according to their personal situations while attending the daytox program. In group sessions they're able to join and share experiences with others struggling with similar issues. For those utilizing the detox program, they have an option to receive support in the privacy of their own homes or in another safe setting.

The Detox Program offers safe, medically-managed support and education for clients who choose to withdraw from problematic substance use occurring in their own homes. For those individuals who do not have a safe home environment, the team

will look for an appropriate safe bed for them to stay in while detoxing. A nurse and health care assistant provide home visits as needed to support clients in their withdrawal efforts. Brief counselling opportunities for the client and/or families are also available through the services of the program's clinical therapist.

The Daytox Program is a six week structured outpatient intensive educational program that encourages healthy lifestyle choices. It's targeted for individuals in early recovery and their families who would benefit from education and support in a group setting.

Individuals can refer themselves to the program or a referral can be made by their doctor, counsellor, social worker, mental health support worker or Creekside Withdrawal Management Centre. For more information about these programs call: [604-703-6986](tel:604-703-6986) or toll free: [1-866-795-0600](tel:1-866-795-0600). ▲



Medication supply automation expands at FH

MedStation 4000, which automates the dispensing of medications at the point of care.

Pyxis technology is designed so that medications are managed securely, and directly accessed at nurses' stations on patient floors. It includes automated safeguards to ensure that the right medications and the proper doses are delivered to the correct patients at the prescribed times.

Fraser Health began a plan to automate the medication distribution process in 2008 starting at the Abbotsford Regional Hospital and Cancer Center. In 2010, further expansion of this system was brought on stream at Mission

Memorial Hospital, Jim Pattison Outpatient Care and Surgery Center, and parts of Surrey Memorial Hospital. Fraser Health is now standardizing and harmonizing the drug distribution system at Surrey Memorial by expanding this technology further.

"Studies show that older models of medication distribution processes are extremely complex, fraught with inefficiencies and prone to contributing to medication errors," says Dr. Shallen Letwin, Executive Director, Lower Mainland Pharmacy Services at Fraser Health. "With our ongoing deployment of Pyxis technology, we are improving patient safety and care quality, while improving our overall productivity and cost structure." ▲

A medical technology firm—CareFusion—has entered into an agreement with Fraser Health to provide additional units of its Pyxis® medication and supply automation technology.

Under the agreement Fraser Health will expand its implementation of the Pyxis

Operating rooms are open for business at new FH facility in Surrey

Surgical procedures begin at the Jim Pattison Outpatient Care and Surgery Centre on Tuesday June 14, 2011 and booking has started already. With six new operating rooms (ORs) four will be dedicated to day surgery patients from Surrey Memorial Hospital (SMH), as part of the strategy for decanting patients from SMH. The other two ORs will be used for regional purposes, determined in consultation with key stakeholders, surgical services and senior executives.

Physicians who have a request for OR time or need further information please contact: Linda.Lemke@fraserhealth.ca or Lorraine.Gillespie@fraserhealth.ca in Surgical Programs. ▲