



SAFER HEALTHCARE NOW!

'Safer Healthcare Now' (SHN) is a Canadian campaign dedicated to improving patient safety and provides the opportunity for healthcare organizations, like Halton Healthcare Services, to participate in and support patient care improvements in a number of targeted interventions. The campaign has struck a 'cord of caring' across the country and the list of participating organizations is growing. The campaign strives to transform concern and best intentions into tangible improvements in patient safety.

Halton Healthcare Services is one of over 270 organizations and 1,000 clinical teams nation-wide to be enrolled in the campaign. Details about the national program can be found at www.saferhealthcarenow.ca.

Current SHN Initiatives at HHS

At Halton Healthcare Services, several clinical teams are registered with the campaign and working together across our three sites. This means that the teams evaluate current practices against what is known to be the best, evidence-based practice, and make improvements where needed. We continue to monitor and track our practices and share our data / progress with the national campaign database.

Improved Care for Acute Myocardial Infarction

Acute myocardial infarction (AMI) or 'heart attack' is caused by a sudden loss of blood supply to an area of the heart that may cause permanent damage or death. Studies have shown that patients with AMI should receive specific interventions or 'bundles of care' in order to prevent complications and death. Some of these interventions include:

- Early administration of Aspirin®
- Timely initiation of reperfusion (e.g. "clot buster" medication)
- Smoking cessation counselling
- Referral to a cardiac rehabilitation program

HHS is providing all components of the bundle to our patients.

Introduction of Rapid Response Teams

This is a team of clinicians who bring critical care expertise from the Intensive Care Unit to the patient's bedside elsewhere in the hospital at the first sign of patient distress or deteriorating clinical condition. At HHS, the team is referred to as the Critical Care Outreach Team or CCOT.

Implemented at the Oakville site in 2005, this team includes specially trained ICU doctors, nurses and respiratory therapists who are available 24/7 to any unit at the Oakville site. The team provides quick medical intervention as follows:

- Staff anywhere in the hospital can page the team when they are concerned about a patient

- A Critical Care Nurse responds immediately - he/she works with the ICU physician on-call for the team as well as the staff on the unit who requested help
- Prompt assessment and treatment may prevent a transfer to the Intensive Care Unit or timely transfer to ICU
- On a daily basis, the team follows up on the condition of patients recently discharged from the ICU to various units throughout the hospital. This confirms that these patients are continuing to improve clinically and prevents the need to be re-admitted to the ICU

The program has been very well received throughout the inpatient units and has proven to be a tremendous support to ward staff and of benefit to patient care and outcomes. In 2007/08, the Critical Care Outreach Team saw more than 1,320 patients. The results has been fewer cardiac arrests and very few patients requiring readmission to ICU within 48 hours of discharge.

Prevention of Adverse Drug Events

Also referred to as medication reconciliation, the aim of this project is to prevent medication errors by obtaining a complete and accurate list at the time of admission of all the medications (name, dosage frequency and route) taken by a patient at home. This list provides an essential basis for physicians when they order medications at any point during hospitalization, including transfers and at discharge.

Comparison checks are made between the list of 'hospital' medications and the 'home' list to ensure that no medications are missed in determining what is needed and appropriate. This is why it is critical that patients tell us exactly what medications they are taking before coming to hospital.

The groundwork for the medication reconciliation project is underway to introduce electronic solutions for the clinical staff and physicians. Once the process is in place, it will facilitate the creation of a 'home' list of medications that becomes integrated into the ordered medications during hospital stay. As both an electronic and printed resource, the 'list' of medications is readily available to the physicians and the care team, including physician's offices for quick and easy access and review and a starting point for subsequent hospitalizations.

Additional features will include:

- Easier access to drug information for both patients and the clinical team
- Improved/printable medication order sheets for physicians to use
- More printable medication lists for patients
- Printable discharge prescription and enhanced patient-specific discharge information for patients to take home and to their community pharmacist.
- This project will be implemented in phases across the organization.

Prevention of Harm from Antibiotic Resistant Organisms (AROs)

This initiative targets implementation of a series of evidence-based guidelines to prevent harm from antibiotic resistant organisms, such as Methicillin-resistant *Staphylococcus aureus* (MRSA). MRSA is spread in hospitals by contact with contaminated surfaces or via healthcare workers hands.

The initiative recommends five evidence-based interventions or 'bundles of care':

- A hand-hygiene program
- A systematic cleaning and disinfection program for both the environment and patient care equipment
- Use of contact precautions for any patient infected or colonized with MRSA (wearing of protective equipment for both visitors and staff)

- Use of screening for MRSA on admission for early detection
- Active surveillance or monitoring program

HHS is addressing this issue with a comprehensive set of strategies. These strategies include:

- Enhanced resources in our Infection Prevention and Control department
- We have significantly increased the number of hand wash stations to facilitate compliance with hand hygiene at point-of-care, and has installed hand lotion stations to improve and maintain hand and skin integrity
- Increased resources in Environmental Services
- Enhanced cleaning processes
- Implementation of an “Isolation Clean” team
- A process is in place outlining cleaning instructions for shared medical equipment to reduce the risk of transmission
- Instructional ‘Additional Precaution – Contact’ signage posted on entry to the isolation room, clearly visible for all persons entering the room
- An information pamphlet for visitors on “Isolation”

Prevention of Central Line Blood Stream Infections

Central venous lines or catheters are a type of intravenous tube that is placed into a larger vein in the neck, chest or groin and used for a number of purposes, for example, administration of medication or fluids. Because the catheter is inserted through the skin, development of an infection is a possibility.

This initiative recommends implementing several components of care called “central line bundles”. A bundle is a collection of processes which together, and when combined, significantly improve patient care outcomes.

Some of these processes include:

- Careful and diligent hand hygiene
- Using chlorhexidine for cleaning the skin in preparation for inserting the catheter
- Prompt removal of the catheter as soon as possible
- Checking entry site for signs of infection with every dressing change

Our interdisciplinary team works to sustain a low infection rate by ensuring compliance with the bundle, for example

- HHS is participating in the Ministry initiative “just Clean Your Hands’ campaign to monitor and improve hand hygiene compliance
- Maximal barrier protection during line insertions and for those assisting, full body drape for patients
- Use of the recommended chlorhexidine skin preparation at all sites

A new pre-packaged ‘kit or tray’ is being prepared for physicians who insert central lines – this will provide all the necessary supplies needed in one easy-to-access location.

Improved documentation process

Prevention of Surgical Site Infections

Surgical site infections can occur following surgery and hospitalization. An unexpected infection can increase length of stay in hospital and even increase re-admission rates.

There are specific components of care that are known to reduce surgical site infection rates these include: no hair removal at the incision site (razors should never be used, clippers are acceptable); for specific

procedures - optimal timing and type of antibiotic use - before, during and after the operation; and maintaining a normal body temperature during the surgery, particularly for lengthy procedures

HHS has teams at all three of its hospital sites that are working together to ensure that these care components are in place. Razors have been removed from all the operating rooms (2007) and the compliance with 'no hair removal' or use of clippers is 100%.

A trial of a new physician pre-printed order sheet for antibiotic delivery is well underway and is expected to be implemented across the organization this fall. The pilot study of prophylactic antibiotic use for select surgeries within the time period recommended shows a compliance of 90%.

A number of measures have been put in place to keep patients from becoming too cool during surgery (e.g. warmed intravenous fluids, warming blankets)

Prevention of Ventilator-Associated Pneumonia

Ventilator-associated pneumonia (VAP) is defined as a "pneumonia occurring in patients who require a device to assist breathing through a breathing tube". There are specific criteria for determining this type of pneumonia. This initiative recommends implementation of a group of interventions called the 'VAP bundle' which together help prevent this type of pneumonia.

Examples include: elevating the head of the bed so that the patient is partially upright; discontinuing use of the ventilator or breathing tube as soon as the patient is ready and testing for readiness by doing a daily spontaneous breathing trial; use of a particular type of tube (larger than typical tubes) for the draining of secretions; and the use of oral versus nasal tubes.

The VAP teams have evaluated practice at all sites to ensure that these recommendations are in place. Our VAP infection rate is very low with efforts to support clinical staff and monitor practice currently in place. For example - reminders at the bedside, for patients, families and staff to keep the head of the bed elevated.

For example –

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†The new breathing tube that is recommended is being introduced in the fall, 2008

a revised daily respiratory flow sheet includes bundle components and allows documented evidence of compliance and facilitates auditing

Prevention of Venous Thromboembolism (VTE)

Venous Thromboembolism or VTE refers to blood clots that develop in the deep veins of the legs (called deep vein thrombosis) or in the lungs (called pulmonary embolism). Many hospitalized patients such as those undergoing major surgery, have a substantially increased risk of developing a VTE.

This is a new initiative with 'Safer Healthcare Now' and HHS has practices in place to prevent DVT. At the present time we are considering enrollment in this initiative with Safer Healthcare Now. .

This initiative targets care components that are known to substantially reduce the development of blood clots. For example – administration of anticoagulant medication to prevent a DVT or clot formation