London Health Sciences Foundation

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CRITICAL CARE TRAUMA CENTRE (CCTC)

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I would like my donation to go towards:

☐ General Support of the CCTC ☐ Medical Equipment ☐ Research

☐ Education ☐ In memory of ______________________________

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NS4066 (Rev. 2014/10/20)

TEAR ALONG THIS LINE

London Health Sciences Centre

CRITICAL CARE TRAUMA CENTRE (CCTC) Victoria Hospital

A GUIDE FOR FAMILIES

Critical Care Trauma Centre (CCTC)

A GUIDE FOR FAMILIES

CCTC Family Website

http://www.lhsc.on.ca/Patients_Families_Visitors/CCTC/

CCTC is located in Zone D on Level 2.
The entrance is at ground level, just below the
main ramp from the parking lot.

BAY:________ BED:________

Telephone Extension: __________

London Health Sciences Centre

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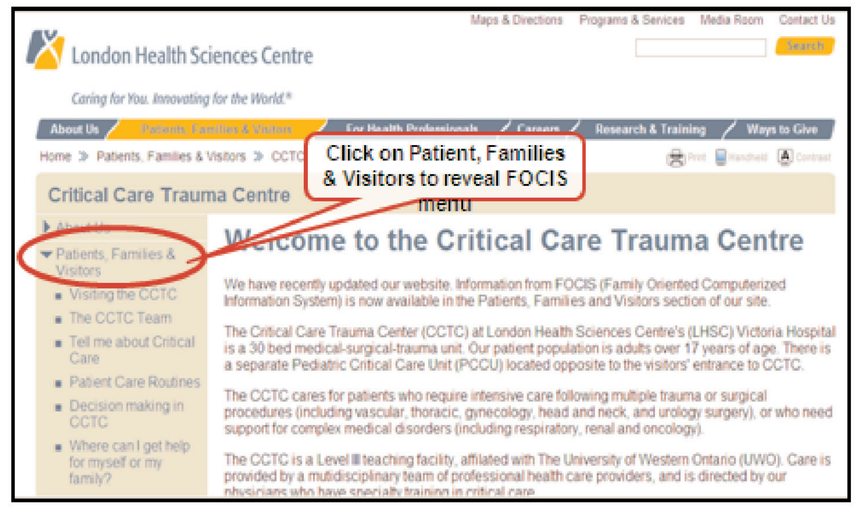
What is the CCTC?

The Critical Care Trauma Centre (CCTC) located at Victoria Hospital is a 30-bed unit that provides specialized care for people who are critically ill. Patients are considered critically ill when one or more of their vital organs (e.g., heart, lung, kidney and brain) are not working properly and require ongoing support. Our team, which includes physicians, nurses, other health professionals and support staff, work together to help patients through this stage of their illness.

The CCTC is part of the London Health Sciences Centre's (LHSC) Critical Care Program, and is affiliated with Western University. Together both units care for all adult patients at LHSC who require critical care support. We also care for patients from our healthcare region who need services that are not available in their local hospital.

For more detailed information about London, LHSC, Victoria Hospital, CCTC or Critical Illness, please visit the CCTC web-based Family Oriented Critical-Care Information System (FOCIS) at: http://www.lhsc.on.ca/About_Us/CCTC

You can view this program in the CCTC waiting room, or from the internet outside of the hospital by exploring the web page in the area shown in the screen shot below:



Click on Patient, Families & Visitors to reveal FOCIS menu

Welcome to the Critical Care Trauma Centre

We have recently updated our website. Information from FOCIS (Family Oriented Computerized Information System) is now available in the Patients, Families and Visitors section of our site.

The Critical Care Trauma Center (CCTC) at London Health Sciences Centre's (LHSC) Victoria Hospital is a 30 bed medical-surgical-trauma unit. Our patient population is adults over 17 years of age. There is a separate Pediatric Critical Care Unit (PCCU) located opposite to the visitors' entrance to CCTC.

The CCTC cares for patients who require intensive care following multiple trauma or surgical procedures (including vascular, thoracic, gynecology, head and neck, and urology surgery), or who need support for complex medical disorders (including respiratory, renal and oncology).

The CCTC is a Level Ⅲ teaching facility, affilated with The University of Western Ontario (UWO). Care is provided by a multidisciplinary team of professional health care providers, and is directed by our physicians who have specialty training in critical care

Education

Physicians from all over the world come to London Health Sciences Centre for training in critical care medicine. Students preparing to become nurses, respiratory therapists, pharmacists, physiotherapists, or dietitians, and those in a variety of medical technology programs, also come to our facility for clinical experience. Care that is provided by students is supervised by experts working in the student's area of study.

Research

CCTC is committed to ongoing healthcare research in critical care, so that our patients receive the most up-to-date techniques and treatments. You may be approached by a staff member requesting your consent on behalf of your family member, for participation in a research study. All research studies involving human subjects have been examined and approved by an ethics review board affiliated with Western University. Participation is always voluntary, and refusal to participate will not affect the quality or type of care provided to your family member.

IMPACT

Impaired Minds Produce Action Causing Trauma

IMPACT is an important educational program designed for Grade 11 students and offered at Victoria Hospital. It aims to increase their awareness of risk factors that may lead to serious injury, and its affect on individuals and families. Throughout the year, small groups of students, along with CCTC staff, visit the bedside of selected patients, with consent of the patient or family. These bedside visits expose students to the reality of critical injury, including its physical and emotional impact. While visiting the CCTC, you may be approached by the injury prevention educator or a staff member, requesting consent for a bedside visit. This consent is voluntary and should be agreed upon by the entire family. The care of the patient will not be disrupted at any time during the CCTC tour. All information is kept confidential by agreements made with the participating students. Please consider helping us achieve our goal of injury prevention. If you have any questions or concerns, please do not hesitate to contact the IMPACT coordinator at extension 75339.

Leadership in CCTC

Our operational leadership team includes a Manager, Medical Director, Coordinators, Clinical Educators, Charge Nurses and Clinical Nurse Specialist. Collectively, they ensure the delivery of high quality care that is based on the latest research and practice recommendations. We welcome feedback regarding the care that you or your family member receives in CCTC; please do not hesitate to contact the Manager (extension 55049) or Coordinator (54990) if you have any comments or concerns. We also have a charge nurse on duty 24 hours per day if you need immediate assistance.

Who provides care to patients in CCTC?

Physicians

Medical care is provided by our eight CCTC physicians ("consultants"). Each consultant is a medical specialist with additional education in the care of the critically ill. CCTC consultants are on-call daily to answer questions and to explain treatment plans. One consultant is in charge of patient care in CCTC for the entire week and works with a team of medical residents. CCTC residents are medical doctors who are receiving additional training in critical care. They provide 24-hour medical coverage.

What is CCOT?

A second CCTC consultant is also on-call each week to provide medical coverage for the Critical Care Outreach Team (CCOT) and to support the first call team. CCOT is a team that includes a CCTC consultant, nurse and respiratory therapist. They respond to medical emergencies on the wards and can be consulted by anyone who is concerned about a patient's condition. The CCOT team also follows patients after discharge from CCTC until the patient's transition to the ward has stabilized.

Our CCTC consultants include:

- Dr. Claudio Martin (Chair/Chief: Critical Care Western and Medical Director, Critical Care Program, LHSC)

- Dr. Scott Anderson (Site Chief: CCTC)
- Dr. Rob Arntfield
- Dr. Ian Ball
- Dr. John Fuller
- Dr. Raymond Kao
- Dr. Neil Parry
- Dr. Mithu Sen

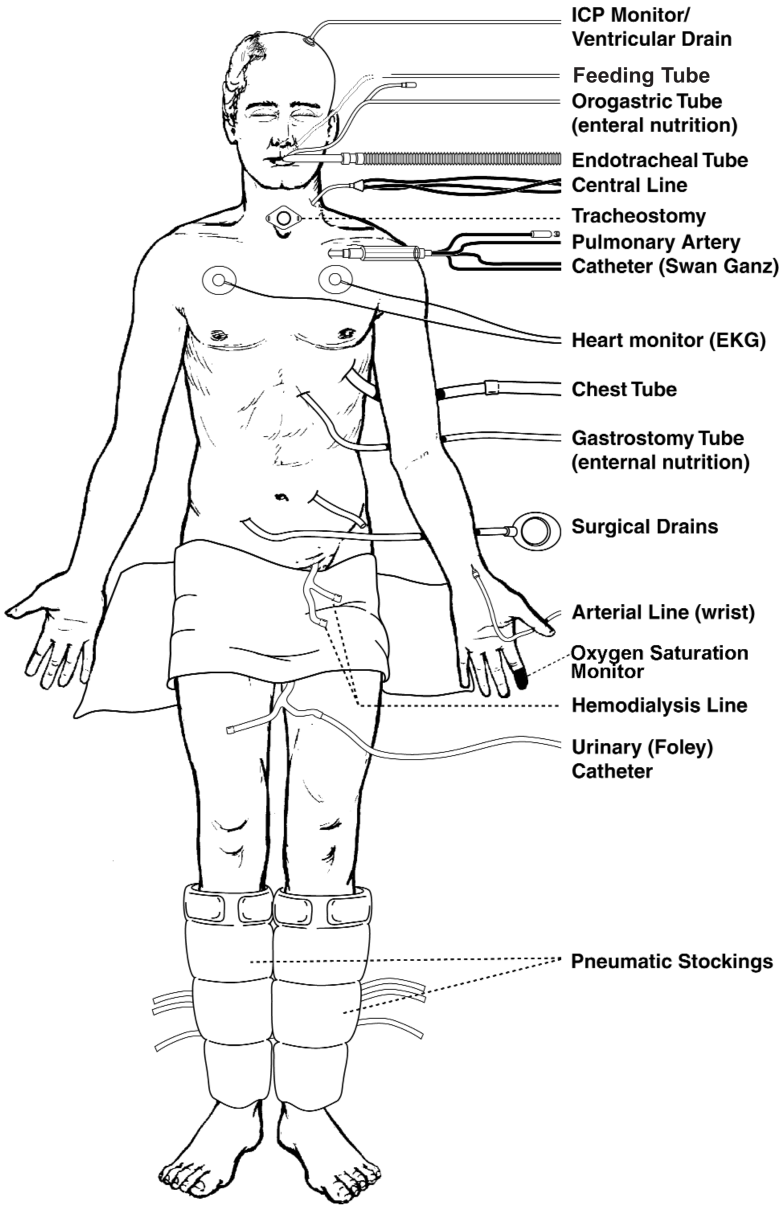
Patients in CCTC may also be seen by other medical experts. For example, a patient may be seen by a physician who specializes in diseases of the kidney (a nephrologist), heart (a cardiologist) or brain (neurologist).

Nurses

All patients receive high quality and personalized care by a registered nurse who has completed additional education in critical care. Each nurse is responsible for the monitoring and care of one or two critically ill patients. Whenever possible, the same nurse will care for a patient during one 12-hour shift, on two or more consecutive days.

Our nurses welcome the opportunity to discuss your family member's care.

Examples of lines and tubes that a patient could have when in CCTC.



Ventilator (or "mechanical ventilator" or "vent")

A ventilator is a machine that forces air into a patient's breathing tube. The ventilator can do all of the breathing for the patient, or make the patient's own breathing more effective or less difficult. A ventilator may be needed if the patient is unable to breathe enough on his or her own, or if we want to give the patient's heart, lungs or brain a rest. Although the ventilator is a form of life support, the ventilator can cause complications. Potential complications of mechanical ventilation include pneumonia (lung infection) or the collection of air or fluid around the lung that may require treatment with a chest tube.

Allied Health Professionals

CCTC has a number of allied health professionals on our team. Allied health professionals are certified and regulated by their professional associations. They include dietitians, pharmacists, physiotherapists, respiratory therapists, social workers and occupational therapists/ speech language specialists.

Dietitians
CCTC dietitians have expertise in the nutritional needs of critically ill patients. They work with the healthcare team to determine the best way to feed patients in CCTC.

Pharmacists
CCTC pharmacists ensure the safe and appropriate use of medications in CCTC, including antibiotic usage. They review all medication orders, provide information regarding drug administration and monitor for possible drug interactions. They have specialized knowledge about drugs that are used during critical illness.

Physiotherapists
Physiotherapists within CCTC use their specialized skills to assess and treat complex, critically ill patients. Physiotherapists assess patients' cardiorespiratory, musculoskeletal and neurological systems in order to develop an individualized treatment plan. Prevention of complications due to the effects of bedrest and critical illness are key elements of the physiotherapy role.

Registered Respiratory Therapists

Registered Respiratory Therapists (RRTs), often called “RTs”, have expertise in the assessment and management of breathing problems. They monitor and adjust mechanical ventilators and oxygen therapy. A core group of RRTs are assigned 24 hours per day in the CCTC.

Social Workers

Social workers provide support and counseling for family members, help to organize family conferences with the medical team and provide referrals to community agencies as needed. Please ask a CCTC nurse or unit clerk if you would like to speak with a social worker.

Occupational Therapists/Speech-Language Therapists

Occupational therapists may assess and support a patient with rehabilitation needs. Speech-language therapists may evaluate and make recommendations about a patient’s ability to swallow or speak.

Other Team Members

Unit Clerks

One of our unit clerks is usually the first individual to greet you at the CCTC reception desk. Unit clerks are available 24-hours per day and can help you to visit your family member, assist you to find your way around Victoria Hospital or the City of London, and may be able to help you locate affordable accommodations. In addition, unit clerks support the health care team by providing a number of clerical duties.

Volunteers

Our waiting room is usually staffed between 12:00 noon and 8:00 pm by one of our volunteers. One of their roles is to help arrange visiting. The volunteers can also help you to find your way around Victoria Hospital and answer questions about the facility. If the volunteer is not on duty, please check with the unit clerk at the reception desk.

Analgesics (pain killers) and Sedatives (relaxants)

When patients are critically ill, analgesics and sedatives are often needed to reduce the patient’s rate of metabolism, to make sure they are free of pain or anxiety and to keep them comfortable on the breathing machine. When you visit, you may find it troubling that your family member is not awake. This may be due to medications that cause sleepiness, or it could be due to their underlying illness. When a patient begins to show signs that they no longer need life-support measures, the drugs are slowly removed and adjusted according to the patient’s comfort level. When you visit, speak to your family member as though they are able to hear you.

Tracheostomy

Some patients may need their breathing tube inserted through a small incision in their neck. This type of breathing tube is called a tracheostomy. A tracheostomy tube is shorter than an endotracheal tube, which may help some patients to get off of a ventilator easier. Tracheostomy tubes are more comfortable for patients who need a breathing tube for a very long time, and may allow the patient to cough up phlegm easier. For patients who frequently choke on their own saliva, tracheostomy tubes may reduce the chance of developing pneumonia. Tracheostomy tubes may also be used if a patient has a blockage in their upper windpipe.

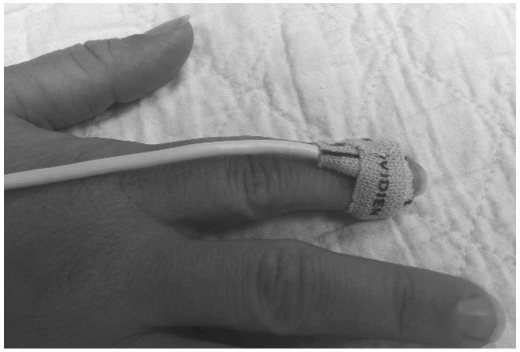
Most tracheostomies are performed at the bedside by a surgeon. The patient is given pain medication and sedation during the procedure. Many tracheostomy tubes can be removed when the patient is well enough to breathe without a ventilator, however, this will depend upon a variety of factors. Patients can speak with a tracheostomy tube in place when they no longer require a ventilator. Some patients may be able to speak while on the ventilator through the use of a special valve called a Passi Muir valve.

Pulmonary Artery Catheters (or “Ganz”, or “Swan Ganz”)

A pulmonary artery catheter or “Swan Ganz” catheter is a long yellow catheter that is inserted into the heart through a central vein. This catheter measures pressures inside the heart and tells us how much blood the heart is actually pumping. Because it is a long central venous catheter, it can be used to give intravenous fluids and medications that require a large central vein. These catheters carry the same risk as other catheters. They can also cause irregular heart rhythms.

Pulse Oximetry (Oxygen Saturation Monitoring)

A pulse oximeter is a device that is clipped or taped onto the finger, toe or forehead of a patient. It measures the amount of oxygen in the blood. This number is continuously measured and displayed on the bedside monitor.



Restraints

Patients sometimes become confused or agitated when they are ill, and may pull at lines or tubes, try to get out of bed unassisted, or sometimes even hit people. We may need to use restraints in these situations to protect the patient or our staff. Staff will discuss the use of restraints with you and ask for your consent if they feel that restraints are necessary. Physical restraints may need to be used for the patient’s safety, such as soft cotton ties around the patient’s wrists. Medications may also be used to decrease anxiety or help correct delirium.

Service Support Workers and Environmental Service Workers

Service Support Workers (SSWs) support patient care by performing a number of duties. They stock supplies, and assist the nursing staff with patient lifting and turning. The Environmental Service Workers (ESWs) are responsible for the cleaning of the CCTC and patient care environment.

Technologists

Technologists from many different departments (e.g., radiology [xray], laboratory [labs], electrocardiography [ECG] and echocardiography [Echo]) may be seen in the CCTC. In addition, patients may need to leave the CCTC to undergo tests that cannot be performed at the bedside (e.g., CT scan or MRI).

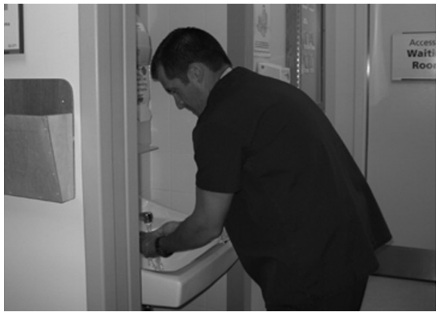
How do I visit?

We encourage you to visit your family member. The following guidelines will help us to provide the best possible care.

- Review the proper technique for hand hygiene and “how to prevent the spread of infection”. This information can be found in this booklet or from any member of the healthcare team. The unit clerk, volunteer and nurse will remind you to perform hand hygiene before and after each visit.

- Visiting is flexible and determined based on the individual needs of each patient and their family. Please speak to the nurse at the bedside to discuss your visiting plans and needs.
- There will be times when visiting restrictions become necessary due to patient care activities.
- Please check in with the unit clerk or volunteer (if on duty) before each visit. This ensures that privacy is respected for all patients in CCTC.
- **Nursing shift change occurs between 0630 and 0730 every morning and evening. This is an important period where nurses are focused on the exchange of critical information and perform their initial patient assessments, please speak to your family member's nurse in advance regarding visiting during this time period.**
- CCTC has three "quiet rooms" available for short-term use by family members. These rooms must be shared by all families within the 30 bed CCTC, therefore, it is necessary for us to reassess and reassign this space as needed. These rooms must be vacated each day for cleaning. We thank you for your understanding and cooperation in helping us to keep the waiting rooms clean and comfortable for all of our families.

What is Hand Hygiene?



Hand hygiene is a term used to describe hand cleaning for the purpose of removing germs. All visitors and health care providers must practice good hand hygiene immediately before AND after leaving a patient's room, and before touching any objects (such as door handles or objects in the waiting room). Unless your hands are visibly soiled, the best way to clean your hands is by using a waterless alcohol-based hand cleanser. Dispensers are located at every bedside, and at various locations throughout CCTC.

Medications to Support the Heart and Blood Pressure

Medication may be required to support the patient's heart or blood pressure. Drugs that support the heart or blood pressure are a form of life-support and include drugs that are classified as "inotropes" or "vasopressors". These medications are usually given by continuous infusion. Without these medications, the organs of the body may not receive enough blood and oxygen. These medications are usually given with the hope that the patient will improve from their illness, since there are no versions of these drugs for long-term use. These drugs do not cure the disease. Some patients do not tolerate these medications (for example, their heart rate may become too high) and other patients do not respond as expected.

Intravenous Catheters (or "IVs")

Patients in CCTC usually require more than one intravenous line. An intravenous catheter is a small tube that is inserted into a vein. It is used to give the patient fluid and medications. Catheters inserted into small veins in the arms and legs are called "peripheral catheters". Many of the drugs that we use in critical care are irritating to the blood vessels and must be given through large veins (called central veins).

Central venous catheters are inserted into veins in the neck, upper chest or groin. In addition to fluid and medication administration, they can be used to obtain blood for lab tests or measure pressure inside the heart. This information helps us to know whether the patient needs more fluid or whether the heart is pumping enough blood. Central venous catheters carry a risk of complications. These include bleeding, collapsed lungs, blood clots and infection.

Patients who require central venous catheters for a long period of time may receive a PICC (Peripherally Inserted Central Catheter). A PICC is a central line that is inserted through a peripheral vein and advanced until the tip is in a central vein. They are usually inserted in the inside of the arm at the elbow. A PICC is more comfortable for the patient and usually lasts longer than a regular central venous catheter. A PICC may be inserted in the radiology department or by a PICC nurse at the bedside. A consent is needed before a PICC line is inserted.

Infusion Pumps

Patients in the CCTC often need medications that are mixed into a bag of intravenous fluid and given as a steady infusion. Special pumps are used to deliver precise medication doses and to keep careful track of the total fluid intake of a patient. These pumps alarm to let the nurse know when an infusion is finished. Alarms do not usually indicate a problem with the patient. Some medications are mixed in large syringes and administered by a more compact “syringe pump”.

Technique for Hand Hygiene Using Soap and Water	Alcohol-based Hand Rub
• Wet hands with warm water • Apply 1 or 2 pumps of soap • Rub hands together vigorously for at least 15 seconds to lather the soap and cover all surfaces of hands • Pay attention to finger tips, between fingers, backs of hands and base of thumbs • Thoroughly rinse soap from hands • Blot hands gently with paper towel; Dry thoroughly, Use paper towel to turn off faucet	• Ensure hands are visibly clean (if soiled, use soap and water first) • Apply 1 or 2 full pumps of product to palm of hand • Spread over all surfaces of hands and fingers • Pay attention to finger tips, between fingers, backs of hands and base of thumbs • Rub hands together until product is dry*. This will take 15-20 seconds if sufficient product is used • Hands must be fully dry before touching the patient or patient’s equipment

How can I get information?

The people caring for your family member will keep you informed of the patient’s progress and can explain procedures and treatment plans. At times, you may feel overwhelmed by the amount of information you receive. Do not worry if you have to ask the same questions many times. It is normal to need to hear the same information repeated.

Family meetings may be requested by the health care team or by the patient’s family. For example, the team may want to meet to provide an update at the time of admission or if the patient’s condition or treatment plan has changed. A family may initiate the meeting to review the patient’s progress or to discuss options regarding life-support. An information booklet is available to help you to prepare for a family meeting.

Where can I find parking?

The visitor parking lot is located across the road from the main CCTC entrance, adjacent to Commissioners Road. It can be accessed 24 hours a day. Daily parking can be paid for at the self-serve kiosks located in the parking lot. A weekly or monthly pass can be bought from the attendant in the booth at the west end of the parking lot (closest to Wellington Rd). Coins ($1 or $2) or major credit cards can also be used at the kiosks. The Emergency Department parking lot only accepts coins. A machine that can give change for paper money is located in the entrance to the Emergency Department and at most parking kiosks.

Where can I find a place to stay?

There are a variety of bed and breakfast, hotel and motel accommodations in the city. The unit clerk on duty can help you to locate affordable accommodations. You can also visit our Family and Visitor Website from the computer in the waiting room, or contact Tourism London at 519-661-5000.

Where can I find something to eat?

Faye's Café is located on the 3rd floor beside the D zone elevators.

Tim Hortons locations include: 1) Faye's Café; 2) on the 2nd floor, in the hallway that connects the D and E zones; 3) on the 2nd floor B zone (near the Baseline Rd. entrance)

Pure (offering StarBucks coffee) is located beside the B zone elevators.

How can I get help to cope?

Social Worker

If you would like to speak to a social worker, ask the unit clerk or nurse for assistance.

When a patient is very ill, we may dialyze them using a slow and continuous method called Continuous Renal Replacement Therapy (CRRT). The machine used is called the Prismaflex. If the patient is more stable, a dialysis nurse will come to the bedside to dialyze the patient for a few hours every day or two. This is called intermittent hemodialysis or "Hemo".

Electroencephalography (or "EEG")

An electroencephalogram (or EEG) is similar to an ECG, except that the electrodes are placed on the patient's head to allow us to monitor electrical impulses from the brain. When a patient is unconscious, the EEG can provide helpful information about the patient's brain function, and can help us to identify and treat seizures if they develop.

Heart Monitor (or "ECG")

Most patients in the CCTC have continuous electrocardiograms or "ECGs". Small disc-shaped buttons (called electrodes) are taped to the patient's chest. Wires (called ECG leads) are connected to these electrodes. Electrical impulses from the heart are carried from the leads to the bedside monitor. This allows us to constantly monitor the patient's heart pattern (or rhythm) and heart rate.

Bronchoscopy

A bronchoscope is a flexible tube with a special camera on the end that can be inserted into the air passages of the lung. This allows the physician to see inside the airway. It is used to detect abnormalities in the lung or airways, remove secretions and obtain samples that can help to diagnose infection or other lung diseases. Patients receive medication for pain and anxiety during a bronchoscopy to keep them comfortable. If the patient already has a breathing tube in place, the bronchoscopy is done through the existing tube. If the patient does not have a breathing tube in place, one may need to be inserted to perform the test. Bronchoscopy is a relatively easy procedure to perform in CCTC. The greatest risk is a brief drop in oxygen level or blood pressure. Both of these problems can usually be corrected quickly.

Chest Tubes

The lungs are surrounded by a layer of tissue called the pleural membrane. Air, fluid or blood can collect in the space between the lungs and pleural membrane, and cause areas of the lung to collapse. A chest tube can be inserted into this space (called the pleural space) to drain any air or fluid and allow the lung to inflate properly. Chest tubes may be required after a traumatic injury or as a result of disease of the lungs. A special chest drainage container is used to collect fluid and prevent air from getting back into the chest. Insertion of a chest tube can sometimes cause bleeding.

Dialysis (or "artificial kidney")

When a patient is critically ill, their kidneys may stop working properly. The kidney helps the body to get rid of waste products and water. It may become necessary to take over the work of the kidney by providing "dialysis". A special intravenous catheter (called a dialysis catheter) is inserted into a large vein. The catheter has two separate channels (called lumens) that are connected to the dialysis machine. A pump pulls blood from one lumen into a special filter that removes waste products and water from the blood. The filtered or "cleaned" blood is then returned to the patient through the other lumen of the catheter. Although some patients may continue to need kidney dialysis after they recover from their critical illness, others may only need dialysis for a short period of time.

Spiritual Support

You are invited to use the hospital sanctuary that is located on the third floor of the hospital, near Faye's Café (the hospital cafeteria). An inter-faith chaplain and a Roman Catholic priest are on-call for the hospital 24 hours per day. To contact a chaplain or priest, ask the unit clerk, social worker or nurse for assistance.

Tell me about critical illness and how quality and safety is provided in CCTC

All individuals who are critically ill are at risk of developing additional medical problems or complications. Infection, heart attack, stroke, kidney failure, blood clots and bleeding are examples of some of the more common complications. Although we work very hard to reduce each patient's chance of developing additional health problems, complications are a frequent part of a patient's critical care journey. The patient's state of health prior to admission, and the severity of the patient's admission diagnosis are among the most important factors. If a patient has a serious heart, blood pressure or breathing problem, he or she may be unable to get enough oxygen and nutrients to the cells of the body. This can lead to failure of other body systems, and puts the patient at additional risk for many types of complications, including infection.

All of the treatments, procedures and medications that a patient receives carry some risk. These risks can range from extremely low to very high, and will vary for each treatment or procedure. As well, the same procedure will carry a different risk for different patients. These risks are influenced by a patient's age, gender, underlying health status and severity of disease. A decision to not intervene for a specific problem is another treatment option, and it will carry a different risk for each patient.

Health care research has helped us to understand some of the common complications of critical illness, as well as the treatments that are most likely to prevent these complications from occurring. We initiate a number of routine practices and treatments to reduce the chance of complications (provided that the treatment is considered safe for that particular patient). Although we try very hard to prevent complications from occurring, patients can have complications despite our best efforts and prevention strategies.

The physicians and health care providers in CCTC carefully consider the potential benefits and risks associated with each treatment option, for each individual patient. They will openly discuss these plans with patients and substitute decision maker(s). If you have any questions, or would like to speak to the physician about any of the treatment plans, please do not hesitate to ask. The team in CCTC is committed to maintaining an environment that is safe for patients, families and staff, minimizes complications and promotes the best quality of patient care.

How is quality maintained?

Our goal in CCTC is to provide the best possible care for our patients and their families. As a university affiliated medical centre, we participate in the training of students from a variety of health professions. Consequently, our multidisciplinary teams continually review our practice guidelines to ensure that they reflect the most recent research findings. CCTC and the members of our team actively participate in a number of provincial and national activities aimed at promoting quality critical care services.

You may observe a number of procedures or practices when visiting the CCTC, which are being done to reduce the chance of complications. CCTC monitors a number of patient outcome variables, including central line infections, antibiotic resistant organisms and pneumonia rates. These data are used to evaluate important trends and to guide quality improvement activities. To find out more about London Health Sciences Centre Accountability, select the accountability link from the main hospital website at http://www.lhsc.on.ca.

While most blood tests can be drawn from a vein, the best way to measure the amount of oxygen in the blood or to evaluate a patient’s breathing is to draw blood from an artery (called a “blood gas” test). An arterial line also allows us to measure a patient’s blood pressure continuously. This will produce a number and waveform on the bedside monitor.

Bladder Catheter (or “Foley”)

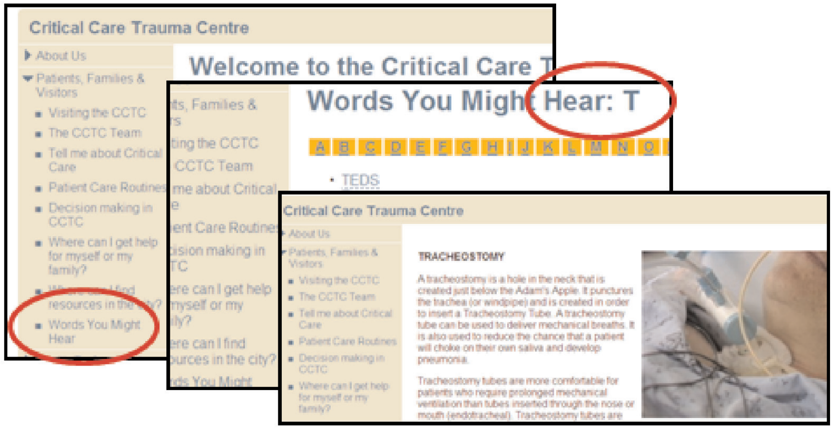
Most patients will have a small catheter (or tube) inserted into their bladder. This tube is connected to a drainage bag to allow hourly measurement of the amount of urine produced. This tells us how well the kidneys and heart are working. A small balloon located at the tip of the catheter (in the bladder) is inflated with air to keep the catheter from falling out. This type of catheter is often called a “Foley catheter”.

Breathing Tube (“Endotracheal Tube”, “ET Tube” or “ETT”)

A breathing tube is required if a patient is placed on a breathing machine (ventilator). It may also be needed in certain situations where the breathing passage is narrowed, or if the patient needs help to get rid of phlegm in their lungs (called secretions). The tube is usually inserted through the mouth, ending in the windpipe (called the trachea). Occasionally, it is inserted through the nose. Because an endotracheal tube passes through the vocal cords, patients with a breathing tube are temporarily unable to speak. Hearing is not affected by a breathing tube. Awake patients may be able to write notes or communicate in other ways. After the tube is removed and the patient awakens, the patient’s voice will return. They may sound hoarse or have a sore throat for the first few days.

What devices or treatments may be used?

The following section provides a brief overview of some of the common devices and treatments in CCTC. You can obtain more detailed information from the CCTC family information website by clicking on the “Words I May Hear” link at:
http://www.lhsc.on.ca/Patients_Families_Visitors/CCTC

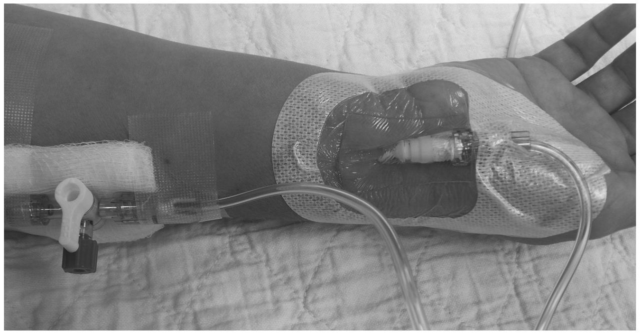


A tracheostomy is a hole in the neck that is created just below the Adam's Apple. It punctures the trachea (or windpipe) and is created in order to insert a Tracheostomy Tube. A tracheostomy tube can be used to deliver mechanical breaths. It is also used to reduce the chance that a patient will choke on their own saliva and develop pneumonia.

Tracheostomy tubes are more comfortable for patients who require prolonged mechanical ventilation than tubes inserted through the nose or mouth (endotracheal). Tracheostomy tubes are

Arterial Line (or “art line”)

An arterial line is a small catheter (or tube) that is inserted into an artery. An artery is a blood vessel that carries oxygen-rich blood to your organs and produces your blood pressure. Laboratory tests can be collected from an arterial line without having to “stick” the patient with a needle.



How can I help to prevent the spread of infection?

Because hospitals care for patients with a variety of serious problems including infections, bacteria and viruses are present in all hospitals. Critically ill patients have a number of reasons why they are more susceptible to infection, therefore, all visitors and health care providers must help to prevent the spread of infections.

Most germs are spread on the hands of people who have touched a patient or a patient's bed or bedside area. Although it is very rare for a healthy family member to contract an illness from a patient, visitors can spread germs to the waiting room, which can be carried to patients or other areas. We invite you to ask any member of the healthcare team, “have you washed your hands?”

Please note: For the protection of staff, patients and visitors, food and drinks are not permitted in patient care areas.

Tell me about isolation precautions

Occasionally, patients may be placed on isolation precautions. Some germs are spread by touching a contaminated item, while others are spread by coughing and spraying infected droplets into the air (such as the common cold). Different types of isolation may be required, depending upon the way that a germ is spread. If a patient is on isolation precautions, the nurse at the bedside will tell you the steps that need to be taken before you visit. The most important precaution is always to practice good hand hygiene.

Sometimes people carry bacteria on their skin or in their mouths that are resistant to certain antibiotics (Antibiotic Resistant Organisms or AROs). Even if these bacteria are not making the individual sick, patients who test positive for resistant bacteria will be placed on contact precautions. This is a type of isolation where gloves and gowns are worn if the patient is touched. All patients are tested on admission and during their hospitalization for the presence of resistant bacteria.

What if you or other visitors are sick?

If you or other family members are sick, you should avoid coming to the hospital. Even if you stay in the waiting room, you can spread germs to other visitors, who may infect other critically ill patients. If you are unsure of whether it is safe for you to visit, please check with the bedside nurse before you come to the hospital.

Environmental Cleaning

All beds, bedside areas and medical equipment are thoroughly cleaned after each patient use.

Remind others to practice hand hygiene

If you notice that someone has come in contact with a patient without practicing hand hygiene, you are encouraged to remind them to clean their hands. If you have any concerns about the cleanliness of the environment, or about any other infection control practice, please speak to the Charge Nurse who is on duty, or to the Coordinator at extension 54990.

Medication Reconciliation

Medication Reconciliation is a formal process in which healthcare providers work with patients and their families to maintain accurate and complete medication information exchange at the time of admission and discharge from hospital, and at the time of transfer to other units or facilities. You may be asked to provide a record of any medications that your family member takes. The physician, nurse or pharmacist may also contact other physicians or community pharmacists, in order to ensure we have an accurate record.

Delirium

Delirium is a very common problem among critically ill patients, particularly among older adults or those with risk factors such as brain injury or chronic alcohol use. Critical illness, infection, discomfort and

Tell me about patient care in CCTC

The physicians meet with other members of the health care team every morning and afternoon. This meeting is called “rounds”. During rounds, the team develops a plan of care and reviews the patient’s progress. The plan is implemented and coordinated in consultation with other medical teams and health professionals who are involved in a patient’s care.

Caring for patients in the CCTC requires the use of special monitoring equipment and the insertion of catheters or devices. These are used to help diagnose, monitor and treat the patient’s illness. Many of the devices used are invasive, meaning they must be inserted into the patient’s body. All invasive treatments carry some risk, such as infection or bleeding. The potential benefit of inserting any device is always carefully weighed against any possible risk to the patient. Health care professionals in CCTC have received additional training in the use of specialized equipment.

Many of the treatments in CCTC are types of “life support”. We will do our best to discuss the use of invasive devices with the patient or the patient’s substitute decision maker before using them, however, we may need to introduce a device urgently if a patient’s condition suddenly changes. If you have any questions or concerns about any of the devices or treatment plans, please speak to your family member’s nurse or physician.

Most of the medical devices that are used in CCTC have alarms (e.g., monitors, ventilators, IV pumps). To ensure that the nurse is made aware of any possible patient or equipment changes, these alarms are very sensitive. Consequently, most alarms are activated when there is nothing wrong with either the patient or equipment. Alarms are frequently activated if a patient is restless, coughing or trying to speak.

Should a child visit?

A child who is close to a critically ill patient may benefit from visiting. A well planned visit may help a child to cope and to feel more secure. Parents are generally the best judge of whether or not a child is ready to visit. A child may ask to visit.

Prior to visiting, a child must be prepared for the things that he or she might experience. The environment will be prepared to limit unnecessary sights or activity. The child should visit with a calm and trusted adult. Before visiting, please speak to the nurse at the bedside or to the social worker, to ensure that the child is adequately prepared. Prior to visiting, the child should be told that they can change their mind about visiting at any time.

A visit to the bedside is often less scary than a child's imagination. A child’s response is often determined by the response of adult family members. If a parent has been away from the home for prolonged periods of time while visiting an ill family member, the child may simply want to spend time in the waiting room with his/her parent.

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medications are a few of the many possible factors that contribute to the development of delirium. Delirium can lengthen the duration of both the ICU and the hospital length of stay, make it more difficult for the patient to breathe without a ventilator, and places the patient at risk for self-removal of life-saving tubes and equipment.

While some delirious patients may be agitated or paranoid, others can appear “flat” and non-responsive. Delirium may cause agitation, paranoia, or a blank and distant mood. Patients may hallucinate and interpret real situations in bizarre ways (e.g. a patient may believe that staff members are trying to harm them). Family members may be the first to notice subtle changes in the patient’s behavior.

Family members may be able to help prevent or minimize delirium through the following strategies:

- Provide accurate accounts of a patient’s home medications or alcohol use
- Supply corrective eyewear and/or hearing aids as soon as a patient is awake, and dentures when the patient no longer needs a breathing tube.
- Bring familiar items such as a favourite pillow, blanket, soap or shampoo (be aware that blankets may become stained with blood or other fluid).
- Personalize the patient’s room with family photos and story boards
- Provide headsets with the patient’s favourite music or relaxation tapes
- Bring in family movies to help keep a patient connected to those unable to visit
- Orient patients to the date with each visit, and post calendars or clocks within the patients line of vision
- Speak to the patient in a calm and reassuring manner during visits, and remind him/her of the location and reason for hospitalization
- Avoid overwhelming a patient with large numbers of visitors, or loud/excitable visits

- Promote day and night routine; lights on during daytime (except afternoon nap) and quiet, dark nighttime environment with minimal interruptions
- Some delirious patients will become more relaxed with a calm and quiet family member at the bedside; speak to the nurse regarding the most effective approach for your family member

Please help us to provide high quality care

The staff in CCTC are committed to excellence, and want to hear about your experience with us. Following discharge from CCTC, you will be contacted (by phone, mail or email) and asked to provide feedback about the care that you received. Please let us know what we did well, and how we can do a better job in the future. Questionnaires may have a code that will help us to identify the approximate time period when the patient was in our unit (e.g., January – March, April to June), but does not identify either the patient or Substitute Decision Maker. Please be assured that your feedback is completely anonymous. If your family member has more than one admission to CCTC, you may receive more than one questionnaire. This will tell us about each admission, in the event that your experiences were different. If you would like to speak to the Manager about the care that you or your family member received, you can either provide a name and phone number when you complete a questionnaire, or call extension 55049.

We are always interested in knowing how patients and their families recover after a critical care admission. We welcome any letters and/or photographs to let us know how our patients and family members are doing after discharge. These can be forwarded by mail, or to brenda.morgan@lhsc.on.ca; remember to let us know if we have permission to share your story with our CCTC staff.

A child may revert backward in development, and begin wetting the bed, thumb sucking or waking up at night. A child may become unusually "clingy" or tearful, withdrawn or distant, or may become less cooperative. A school-aged child may experience difficulty getting along with friends, have trouble with schoolwork or have other changes in behaviour.

It is natural for adults to try to protect a child from painful situations. As much as we might want to shield children from sad experiences, a child will know when something is wrong. If the truth is kept from a child, he or she may imagine scenarios that are worse than the one being faced. Do not make promises about the patient’s recovery that you may be unable to keep. While doing so may be well intentioned, children who are given inaccurate information may find it difficult to trust adults in the future.

Parents and others who are close to a child know the child best, and individual concerns need to be considered in when determining the best way to give information and support to a child.

Let the child know that the family member is very sick and that the hospital staff are trying hard to make things better. Explain that the child's parents may be away from home for long periods of time.

Try to maintain consistency in the child's normal routine. A child needs a lot of reassurance. Let the child know that he/she will continue to be cared for by people who are close to the child, no matter what happens. If the patient is the child's mother or father, the healthy parent may be too overwhelmed to support the child's needs. Other close relatives can play an important role by maintaining routines and structure and giving the child extra attention.

A child may find it hard to talk about the situation or may be too young to express feelings with words. A child may be able to act out his/her feelings through play. Dolls, puppets or action figures may help a child to communicate feelings. Drawing pictures or writing stories may be helpful for an older child.

At times, you may want to be alone with your thoughts. Let others know when you need some time by yourself.

Journals can be used to keep track of information, events and the names of people you want to remember. They can also provide a place to express personal feelings and thoughts. Journals encourage you to identify the patient's progress, and provide a record for reflection that you may be able to share with the patient after recovery.

Some families create a website that allows them to keep friends up-to-date and to provide a way to receive words of encouragement.

How can I help my child?

A child may respond to a critical illness by showing a wide range of behaviours. Responses are often based on how the child's own needs are affected and will be influenced by the child's age. A child may become more distressed by the absence of the parent who is visiting at the hospital, than by the actual illness. Changes to normal routines and interactions can make a child feel fearful and anxious.

A child may imagine that he/she did something wrong that caused the family member to become ill. You will need to listen closely to what the child is telling you to understand how the illness affects him/her. The child may be afraid of being abandoned or fear that they will also become ill, or may think that the illness is his or her fault.

What is a "Substitute Decision Maker" or SDM?

Because critically ill patients are often unable to speak for themselves, we need to identify a Substitute Decision Maker (SDM). The selection of a substitute decision maker is guided by a law called the Health Care Consent Act. A substitute decision maker is appointed according to the highest ranking in the following hierarchy:

1. Guardian
2. Power of Attorney
3. Representative appointed by the Consent and Capacity Board
4. Spouse (living together in a married or common-law relationship)
5. Parent or child or Children's Aid Society
6. A parent who has only right of access
7. Siblings
8. Other relatives (blood, marriage or adoption)

A substitute decision maker must be willing, available and capable of taking on this responsibility. If the highest ranked individual does not meet these criteria, we move down the list to identify the most appropriate substitute decision maker. If a patient does not have a Power of Attorney for Personal Care or an appropriate family member, a guardian can be appointed by the court. A social worker can help you to identify the substitute decision maker for patients in CCTC.

Making decisions about life-support

All patients admitted to the London Health Sciences Centre are asked about their life-support wishes. When a patient is unable to tell us their wishes, we must rely on the substitute decision maker to communicate the patient's goals, wishes and beliefs.

Most patients receive some form of life-support at the time of admission to CCTC. Life-support is any treatment that supports or replaces the function of one or more of the body organs. Examples include: medications to correct low blood pressure, mechanical ventilation, dialysis and feeding tubes.

A respiratory arrest (when a patient stops breathing) or a cardiac arrest (when the heart stops beating) are the two most serious medical emergencies. They both require urgent treatment.

A respiratory arrest is treated by inserting a breathing tube into the windpipe and connecting the patient to a breathing machine. The treatment for a cardiac arrest includes cardio-pulmonary resuscitation (or CPR). During CPR, members of the health care team push firmly and quickly on the chest in an attempt to force blood to circulate through the body of an individual who has suddenly or unexpectedly died. Other treatments that may be required during a cardiac arrest include: the administration of powerful heart medications, the use of electrical shock (called defibrillation or cardioversion) or the use of a pacemaker.

A number of factors will influence the success of any treatment provided in CCTC. For example, attempts to resuscitate a patient after a cardiac arrest may be unsuccessful. A patient whose blood pressure is too low or whose breathing is inadequate may suffer damage to the brain or other organs from a lack of oxygen. The underlying reason for the medical emergency and the patient's previous state of health are important factors.

Every patient has the right to have their wishes regarding life-support discussed. It is our obligation to provide you with the information you need to make the best decision. Decisions can also be changed as the patient's situation changes. Please talk to us about the patient's wishes. If you would like more information about life-support decisions, please speak to a member of the health care team.

How can I look after myself?

Caring for yourself can be one of the most difficult things to do during the critical illness of a family member. By looking after yourself, you may be more prepared to deal with the ups and downs of critical illness, and better able to maintain your strength in the event of a prolonged hospital stay or recovery time.

During an acute admission, you may find it difficult to leave the hospital. Ask the nurse who is caring for your family member to help you identify a suitable time to return to your home or hotel room to get some rest and look after your own personal needs.

Healthy food choices, adequate sleep and emotional support strengthen your ability to cope. It may be difficult to keep food down, but hunger will often worsen any stomach upset. Avoid foods that upset your stomach. If you cannot eat, be sure to drink beverages that provide some calories. Chocolate milk or milkshakes might be easier to tolerate and will provide some nutrition. Toast or soup may also be good choices.

Although the admission of a family member to critical care is not the best time to quit smoking or drinking coffee, try to be careful to avoid excessive use. Too much coffee can make you feel more agitated and can lead to an upset stomach.

Added stressors and responsibilities make coping more difficult. Family and friends often want to be helpful, but may be unsure how best to help. Take advantage of offers for assistance that you think might be beneficial. You may want to give friends suggestions. For example, ask a friend to prepare a meal, assist with child or animal care, or run a few simple errands. If you have more help than you need at the moment, let the individual know, and ask if you can seek their assistance later on when you have less help.

It may be helpful to talk about the patient's condition with members of the health care team, or with family and friends. Talking about the situation may help you and your family to process information and come to the same point in understanding the illness. Sharing feelings and fears, as well as stories about your family member, can be a source of comfort and help you to identify how your family member would want you to represent their wishes.