



CSTAR

Canadian Surgical Technologies and Advanced Robotics
London Health Sciences Centre

Operating Principles and Procedures Manual

As a Department within London Health Sciences Centre, CSTAR primarily follows the policies and procedures of the institution. This document outlines CSTAR's supplemental Policies and Procedures.

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All forms referenced in this Operating Principles and Procedures Manual, as well as a copy of the manual itself, can be found on the CSTAR website at: <https://www.lhsc.on.ca/cstar/about-us>

For general inquiries about CSTAR please contact: cstarinfo@lhsc.on.ca

This manual was created on November 19, 2018.

It was last updated on February 10, 2021.

1. General Information

Location: CSTAR, London Health Sciences Centre,
University Hospital,
339 Windermere Road,
London, Ontario, N6A 5A5

Telephone: 519.663.3111

Fax: 519.663.8401

Email: cstarinfo@lhsc.on.ca

Website: <https://www.lhsc.on.ca/cstar/about-us>

Business Hours

CSTAR hours of operation are Monday to Friday from 7:00am to 5:00PM,

For functions that occur outside of scheduled hours, it will be prearranged with security to open the doors 30 minutes prior to the event and close 30 minutes post event. The staff assigned to the event, will ensure all building access has been accommodated.

After hours use of CSTAR is limited to individuals and groups actively participating in an approved program by CSTAR. Access may be granted by CSTAR administration through an LHSC ID badge. The approved-users list will be reviewed on a semi-annual basis, and infrequent users will be removed.

Parking

The visitor lot (P3) and visitor parking garage (P4) are located north of University Hospital (west off of Perth Drive).

At University Hospital, visitor lot P3 and the P4 parking garage have automated pay stations. You can pay on the ground floor of the parking garage by the elevators, or at the automated pay station as you are driving out of the lot. Parking costs \$4 for the first hour, \$2 for each consecutive half hour, and up to a maximum of \$12 (with no in-and-out privileges).

For more information go to <https://www.lhsc.on.ca/about-lhsc/parking-0>

2. Vision and Mission

Vision

CSTAR will be a leading, internationally recognized centre for healthcare innovation.

Mission

CSTAR improves the quality and safety of patient care by:

- Providing a safe environment for the development of health care providers with a focus on interprofessional education, simulation and training
- Advancing research into computer assisted surgical technology through the application of robotics and artificial intelligence
- Building value through collaborative development and delivery of accredited simulation programming

3. Governance

CSTAR is governed by the Senior Leadership Team of London Health Sciences Centre. All staff members at CSTAR are employed by London Health Sciences Centre (LHSC) and must abide by the corporate policies of LHSC and by the departmental policies of CSTAR.

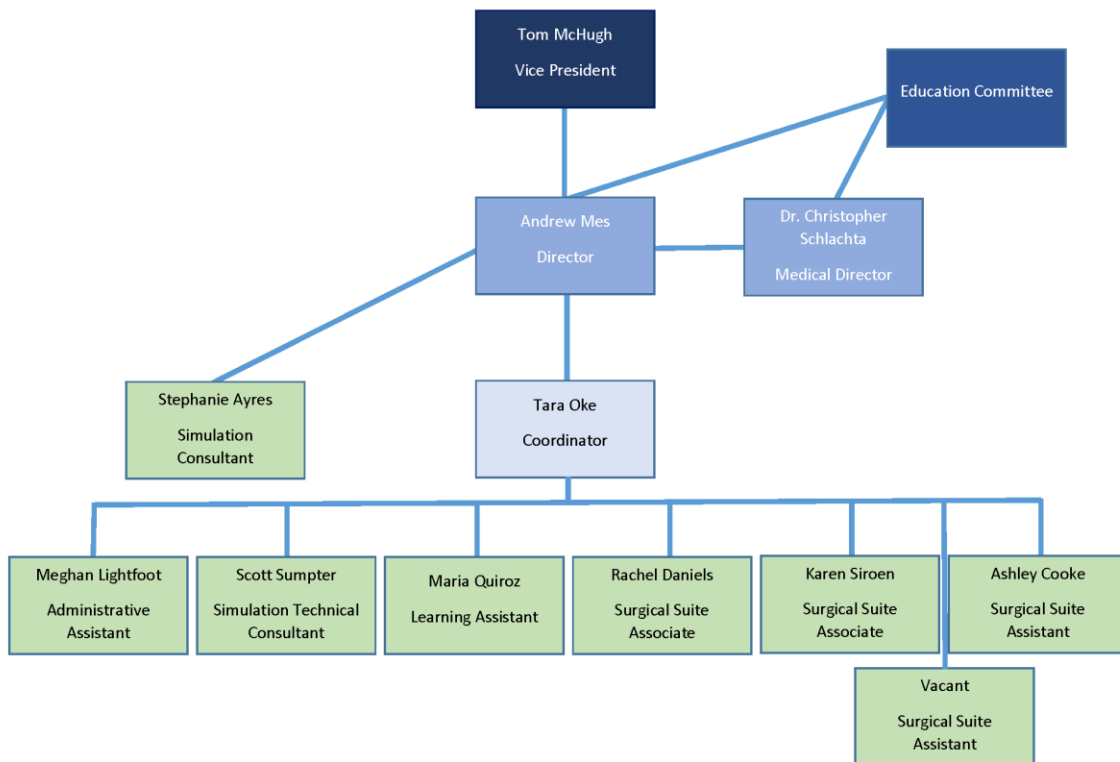
All job descriptions are managed by the London Health Sciences Centre People and Culture Department. They can be acquired by contacting the department.

The CSTAR Education Committee provides guidance and governance in support of CSTAR achieving its mission. The Committee reviews activities and financial performance, identifies simulation/ training opportunities that CSTAR can provide solutions for, and provides an effective view of the current market and what future directions are likely to be.

CSTAR Organization Structure

CSTAR (Canadian Surgical Technologies & Advanced Robotics) – Organization Structure

Updated November 13, 2020



4. Continuous Quality Improvement

CSTAR is continually looking for ways to improve and streamline internal processes and maintain high quality educational programs. We recognize the importance of feedback from individuals who interact with our staff and use our facilities – both as learners and instructors. To promote improvement, we have the following processes in place:

- In addition to specific questions related to the course curriculum, instructor and facilities; our course evaluation tool includes an open-ended question about how the learner’s session at CSTAR could be modified to better suit his/her needs. Please see the section under Course Evaluations for more information.
- After each new course, and on an annual basis for ongoing courses, a debriefing meeting is held with CSTAR staff and course instructors to review feedback and discuss opportunities for improvement.
- Education Committee meetings are held twice yearly and are another means by which the CSTAR leadership team reviews and discusses current practices and receives feedback from key stakeholders.
- CSTAR conducted a customer satisfaction survey in February 2021 and plans to continue to survey stakeholders on an annual basis.

CSTAR has been accredited by the following bodies:

- The **American College of Surgeons** is a scientific and educational association of surgeons that was founded in 1913 to improve the quality of care for the surgical patient by setting high standards for surgical education and practice
- The **Royal College of Physicians and Surgeons of Canada** is the national professional association that oversees the medical education of specialists in Canada. They accredit the university programs that train resident physicians for their specialty practices, and they write and administer the demanding examinations that residents must pass to become certified as specialists.

5. Planning and Logistics

5.1. Client Use of CSTAR

CSTAR is available for use by multiple departments, programs, individuals, collaborators and community organizations.

When booking an event, our Administrative Assistant will review the questions on our [Booking form](#) and where necessary book a consult with the CSTAR team to review the proposed event prior to scheduling.

Priority of Use

CSTAR has reserved the right to determine the priority for meetings and large-scale events based upon the following criteria:

- Educational events
- Revenue-generating events (20% of CSTAR's capacity is reserved for paid events to subsidize the cost of internal education)
- Meets a regulatory requirement
- Meets a system-wide initiative or a local initiative
- The requested space be utilized at 80% capacity or above
- Historical utilization for the event has been validated

If two conflicting events of comparable priority request the same date and time resources will be assigned on a first come, first served basis.

All Clients will be required to submit completed sign-in sheets and copies of Learner Agreements for all participants in the program. Sign-in sheets should identify the role of the learners and instructors as this data is a key component of the reporting that CSTAR must complete on an annual basis.

5.2.Scheduling Courses

- All meetings, sessions, classes, training, or any use of space at CSTAR should be initiated by contacting the CSTAR Administrative Assistant or completing the Booking form.
- Events should be scheduled at a minimum of a month in advance of the session date, with a preference for six months.
- Requests are honored in the order they are received, space and staff permitting and based on the priority of use criteria outlined above.
- While requests for specific rooms may be made, the final classroom assignment is based on the size and needs of all groups scheduled on a given day and up to the discretion of the Coordinator CSTAR.
- Any special room configurations, equipment, or instructions will need to be discussed with the CSTAR staff in advance.
- Changes must be submitted at least five (5) business days prior to the event. Changes to a simulation event may be approved only based on availability of rooms, equipment, and staff.

5.3.Process for Booking Courses at CSTAR

The table below outlines the process for booking a course at CSTAR. For more information or if you have questions please contact the Administrative Assistant at 519-685-8500 ext. 33111

Requestor Activity	Output / Information
Contact CSTAR Administrative Assistant or complete Booking Request form and send it to cstarinfo@lhsc.on.ca .	Administrative Assistant to provide room availability within timeline. Learning Assistant to provide cost estimate as applicable.
Agree to move forward with booking	Administrative Assistant will contact you to book planning meeting
Work with Simulation Consultant to complete Educational Activity Information Form <i>*can be done as part of planning meeting</i>	<ul style="list-style-type: none"> • Learning objectives, • Simulation requirements, • Evaluation process • CME if required
Attend Planning meeting	<ul style="list-style-type: none"> • Simulation equipment booked • Room bookings • Product orders • Catering • Handouts • Registration process • Finalize costs
Send confirmation	<ul style="list-style-type: none"> • Finalized agenda • Participant list • Simulation Scenario • Evaluation tools
Conduct Event	<ul style="list-style-type: none"> • Participant Evaluation • Instructor Evaluation
Post Event Debrief Meeting	Identify any suggested changes to program based on participant / facilitator / CSTAR feedback

5.4. Equipment and Facility Use

5.4.1. Simulation Equipment:

- CSTAR has several types of simulators; please refer to our [equipment list](#) for more information. The CSTAR team will help instructors determine the resources and level of fidelity to meet learning objectives. The equipment and supply lists will be confirmed with CSTAR staff during the scheduling process.
- Equipment and supplies may be provided by CSTAR for courses according to our fee schedule with the exception of any specialized equipment and supplies. Any necessary equipment and supplies for a course that are not considered standard by CSTAR are the responsibility of the requesting individual or department.
- Equipment, including simulators, will be inspected prior to the start and upon completion of all usage. Any damage beyond normal wear and tear to CSTAR equipment during use is the responsibility of the course director, instructor, or individual in the case of independent usage. The individual, department, or program will be billed for the costs associated with repair or replacement.
- All instructors and participants must be familiar with the basic functions of the equipment for their simulation. If a client wants more in-depth information about how to operate a simulator, he should make an appointment with the CSTAR Technical Specialist.
- Troubleshooting – a technical specialist will be available during the duration of the session, and assist in operating and troubleshooting all equipment. The specialist will provide a detailed overview of the simulation center resources and the proper use of all simulation equipment pertaining to your course. In the event that equipment is malfunctioning, he will attempt to repair the equipment. If the equipment cannot be repaired, a replacement will be provided, if possible.

5.4.2. Laboratory Equipment and Supplies:

- CSTAR has the capability for both wet and dry labs, along with a lead lined room for diagnostic imaging.
- CSTAR Surgical Suite Associate will meet with you to determine your equipment and supply needs and to determine what will be arranged through CSTAR and what will be arranged externally
- A Surgical Suite Associate will be available during the duration of the session to assist with providing supplies or setting up equipment.
- All instructors and learners must be familiar with Hand Hygiene, Safe Handling and other applicable policies related to wet/dry labs
- CSTAR will provide information on laboratory specific policies as part of the booking process.

5.4.3. Audio-Visual Equipment

- Please refer to the [Photography of Simulation policy](#) for information regarding use and retention of video recordings.
- CSTAR has installed cameras in nearly every room. The security and maintenance of privacy of those recordings is paramount and CSTAR protects the privacy of users by:
 - Reminding users that cameras are present when recording will be taking place
 - Recording only when requested by session faculty or meeting organizers
 - Permitting only authorized individuals to view live room videos or view sessions through one-way glass - authorized individuals are those identified by session instructors; those who have direct oversight for the sessions they observe; or CSTAR staff.
- Course instructors who wish to use CSTAR's video equipment will need to request audio-visual equipment on the booking form or with the Administrative Assistant.
- Learners must be made aware of the intended use of the video and provide consent using the **Release for Photographs, Digital Images and Video Recordings**.
- Video recordings taken for the previously mentioned purposes may be accessed in the following ways:
 - Live stream a simulation within an on-site space for viewing learners via the Stryker client system operated by the Simulation Technical Consultant, with all learners having received a prior briefing covering this policy.
 - Export video clips for approved and consented simulation programs (hereafter covered in detail).
- Use of Own Video Equipment for sessions conducted at CSTAR
 - Course instructors who bring in their own video recording equipment must ensure that learners are informed of the rationale and planned use of the video recording; they have collected participant consent using the Release for Photographs, Digital Images and Video Recordings; and submitted a signed copy to CSTAR for our records.
 - Course instructors must follow the guidelines of the *Freedom of Information and Protection of Privacy Act* with regards to retention of recordings.

5.4.4. Shipping of Equipment

- Prior to making arrangements for shipping please review the HMMS Purchase Order Terms and Conditions https://www.hmms.on.ca/suppliers/hmms_po_terms_and_conditions.pdf
- You will need to complete the Supplier Form and fax or email it to CSTAR <https://www.lhsc.on.ca/media/1841/download>
- If equipment or supplies are being shipped to CSTAR, the Surgical Suite Associate will need to be made aware of the arrival date and time to arrange transportation from the loading dock to CSTAR.
- All costs related to shipping will be the responsibility of the course organizer.

5.4.5. Preventative Maintenance

- CSTAR will maintain a schedule for preventative maintenance of simulation and laboratory equipment
- At times this may require equipment to be sent away for maintenance for an extended period of time and it will not be available for use. CSTAR will strive to plan in advance to minimize the impact to clients.

5.4.6. Room set up

- All rooms will be set up prior to the start of the course by CSTAR staff.
- Any special requests for room set up should be indicated to the Administrative Assistant, on the Booking form or in consultation with CSTAR staff in the planning meeting and must be communicated to the CSTAR staff a minimum of 5 business days prior to start of the class.
- In cases where specialized equipment is brought in, it will be the responsibility of the vendor to set up and take down the equipment. CSTAR staff will be available as reasonable to assist with access and set up of the rooms.
- CSTAR staff will be responsible for take down and cleaning of the laboratory and simulation areas.

5.4.7. Fees

- Fees for events will follow a fiscal year fee schedule which can be provided to clients upon request.
- At the client's request, an estimated budget may be provided prior to the start of development.

5.4.8. Catering

- Event catering charges are at the expense of the hosting department or organization.
- If arranging catering groups have the option of using the LHSC internal catering services (<https://freshforklondon.catertrax.com>) or arranging catering from an external source.
- CSTAR staff can arrange catering if required; using the LHSC internal catering services. This will need to be determined during the planning meeting and final details provided to CSTAR staff within designated timelines.

5.5.Event Cancellation

- Cancellations should be made a minimum of seven (7) business days prior to the event.
- Please notify the Administrative Assistant through their personal email or at cstarinfo@lhsc.on.ca
- Upon receiving cancellation notification, the Administrative Assistant will disseminate cancellation information within CSTAR and notify catering if they had made the original booking.
- It will be the responsibility of the organization or department to cover any costs for supplies ordered for the course that cannot be cancelled.
- It is the primary simulation facilitator's responsibility to disseminate the cancellation information to the event participants, facilitators and all other parties involved.
- Cancellation fees may apply.

Failure to follow the proper cancellation process may impact your ability to schedule future events at CSTAR.

5.6. Invoicing

Invoicing for CSTAR is processed by the London Health Sciences Centre (LHSC) Finance Department.

Upon completion of the course or program, CSTAR will gather together expenses for any costs incurred by CSTAR, including those for supplies, models, resources and incidental costs (parking passes, etc.) and send the information to LHSC Finance Dept. who will then issue an invoice to the course organizer.

All invoices are due and payable upon receipt unless stated otherwise.

6. Instructor and Learner Expectations

6.1. Professionalism

CSTAR will uphold the following standards of professionalism for learners, instructors and staff participating in events located at or affiliated with CSTAR.

- Following all LHSC Corporate policies and CSTAR policies;
- Maintaining confidentiality regarding learner performance and debriefing discussions unless outside discussion is expressly permitted and consent obtained.
- Out of respect for participants, no photography and/or audiovisual recording can be permitted without written consent. Please refer to the [Photography of Simulation policy](#) for more information regarding use and retention of photography or video recordings.
- Cell phone usage:
 - The use of cell phones is prohibited during classes, unless otherwise determined by the instructor or CSTAR staff member.
 - All public use of cell phones should be conducted outside of the simulation center.
 - The use of cell phones for the purpose of video recording or taking of pictures is prohibited.
- Ensuring professional demeanor and communications during educational events at all times. CSTAR reserves the right to stop any simulation event in which unprofessional behavior is occurring.
- Preserving the safe learning environment by limiting attendance to identified learners and faculty, and CSTAR staff as required.
- Demonstrating stewardship by leaving all CSTAR materials, including medications, medical supplies and/or instruments in the facility.
- Abiding by the Basic Assumption as outlined by the Centre for Medical Simulation “We believe that everyone participating in activities at CSTAR is intelligent, capable, cares about doing their best and wants to improve.”

6.2. Confidentiality

CSTAR has specific policies related to confidentiality in the learning environment. Please refer to the [Confidentiality policy](#) directly for more information.

CSTAR considers the following types of information to be confidential:

- The performance of peers and other health professionals the participant may observe while training at CSTAR.
- The content of simulation sessions and training scenarios as directed by the instructor
- Confidential business information of the organization.

This policy applies whether the information is verbal, written, electronic, or in any other format.

Confidentiality Agreement

- All staff/affiliates must sign/acknowledge the terms of the [Learner Contract](#) prior to participating in a course or assessment at CSTAR.
- Individuals playing the role of Standardized Patients, who are not affiliated with an Educational Institution, must sign a [Confidentiality Agreement](#) prior to participating in a course or assessment at CSTAR.

Investigating Alleged Breaches of Confidentiality

- It is the responsibility of course organizers, in collaboration with CSTAR, to investigate alleged breaches of privacy and confidentiality. (Refer to LHSC Breach of Privacy Policy.)
- Staff/affiliates should consult their leader, or the Coordinator CSTAR regarding privacy and confidentiality issues or concerns.

6.3.Instructor Orientation

To ensure a high quality learning environment and to meet our requirements of accreditation, CSTAR requires all instructors to have received formal training in simulation. CSTAR will contact new simulation/course instructors to schedule attendance at an instructor training session in advance of the instructor's initial use of CSTAR. Instructor training sessions are offered once per quarter or on an as needed basis. Please plan accordingly to have time allotted prior to your course or event for instructors to attend this training. Evidence of formal training in simulation must be provided in order to exempt the instructor from attending the CSTAR instructor training.

Instructor training will include, and is not limited to:

- overview of the simulation environment and resources,
- writing learning objectives,
- principles of effective simulation,
- creating an effective learning environment,
- facilitating debriefing, and
- additional curriculum as deemed necessary by CSTAR staff.

CSTAR can refuse the use of the facility or equipment to instructors who have not completed the above preparation.

6.4. Conflict of Interest

CSTAR has a policy related to conflict of interest that must be followed by all who are involved with planning and facilitating courses at CSTAR. Please refer to the [Conflict of Interest policy](#) for more detail. The intent of this policy is not to prevent a speaker with a potential conflict of interest from making presentation. It is merely intended that any potential conflict should be identified openly so that the listeners may form their own judgment about the presentation with the full disclosure of the facts.

All faculty/instructors and /or planning members involved in the design or delivery of a program must disclose any potential conflict of interest including:

- Financial or “in-kind” relationships i.e.) Membership on the Organization’s Advisory Board or similar committee, Current or recent participation in a clinical trial sponsored by the Organization, Holding a patent for a product referred to in the CME/CPD activity or that is marketed by a commercial organization
- Complete the CSTAR [Conflict of interest form](#), located on the CSTAR website, and bring the signed document on the day of the course.
- Disclosure to participants must be verbal and displayed in writing on a slide at the beginning of a presentation. There is a [slide template](#) available for this disclosure on the CSTAR website.

6.5.Learner Safety: Psychological and Physical

Maintaining learner safety is foundation to the simulation programming. As part of the mandatory facilitation training course, the expectation is set that facilitators will do the following for every simulation encounter:

- Conduct a Pre-brief for learners that includes information on the following
 - Equipment safety and general safety procedures
 - Confidentiality
 - Orientation to the format and learning objectives
 - Commitment to the learner’s professional development
 - Assessment (Methods and purpose)
 - Consequences of performance - Formative vs summative
 - Intended use of video or photography if applicable
- Maintain Positive Learning environment during debriefing
 - External observers are not permitted without learner’s verbal consent
 - Practice effective facilitation skills to identify and deal with difficult or disruptive behaviours or learner distress
 - Distribute learner evaluations, to collect feedback on learning climate

6.5.1. General Safety Procedures in the Laboratory

- Never eat or drink while working in the laboratory
- Wash hands before and after leaving the lab
- Make sure that any long hair or loose clothing is tied back
- Wear safety glasses while working with hazardous materials or power tools and while soldering
- Wear lab appropriate attire at all times (i.e. long pants and close toed shoes, etc.)
- Wear personal protective equipment while handling dangerous substances
- Wear gloves while handling animal or human tissue
- Do not use any equipment unless you are trained to do so by your supervisor
- Clean up before leaving the lab at the end of the day
- Keep only the materials you need at your workspace at all times
- Read all labels carefully
- Wash your hands before the lab and before eating

6.6.Course Evaluations

Below are guidelines for the use of evaluations for courses conducted at the Center:

- All sessions should include learner evaluation of curriculum materials, integration of simulation-based education and debriefing, technology/simulators utilized, facilities, staff and the instructor(s).
- CSTAR has standard evaluation templates that can be used; the Simulation Consultant will work with the course designer / instructor to customize the evaluation as necessary.
- Some instructors or Departments may choose to use an evaluation form they have designed or is required for CME or CEU purposes. In addition, many Departments will evaluate a simulation-based session as one component in a larger rotation or course that includes non-simulation-based elements. In both cases, the instructors or Departments must send CSTAR summaries of these evaluations for our records; we do not require copies of each of the original evaluations.
- All evaluation tools should be submitted for review by the Simulation Consultant prior to use. Suggested changes to the tool may be made and incorporated based upon this review.
- Any complaints are immediately shared with the instructor and staff following the session so that improvements can be incorporated in future sessions. Evaluation responses are also compiled and shared with instructors as part of the post-course or annual debriefing session. It is expected that course curriculums will be modified based on feedback.

6.7. Instructor Evaluation

- All simulation instructors will be evaluated on an annual basis using the Debriefing Assessment for Simulation in Healthcare (DASH)[®] tool or a comparable methodology.
- The DASH[®] tracks and rates six key Elements of a debriefing. These include whether and how the instructor:
 1. Establishes an engaging learning environment;
 2. Maintains an engaging learning environment;
 3. Structures debriefing in an organized way;
 4. Provokes engaging discussions;
 5. Identifies and explores performance gaps; and
 6. Helps trainees achieve or sustain good future performance.
- The evaluation may be completed by a peer and submitted to CSTAR Simulation Consultant or be completed by the Simulation Consultant.
- Learner evaluations will also be required. Components of the DASH[®] - Student Version tool for learners can be incorporated into the learner evaluations or the DASH – SV Short Form may be used.
- Instructors will be notified in advance when the evaluation is due to be completed.
- Feedback will be provided to the instructor either electronically or in person.

8. In Situ Simulation

In Situ is defined as simulations that occur in the actual clinical environment. In Situ hospital team training provides an opportunity to improve interdisciplinary team dynamics and communication as well as to identify unit-based key systemic errors, in many cases, more effectively than similar training conducted offsite, at the Simulation Center.

Booking and Equipment Use

- Unit requests for In Situ training, including a topic and general objectives, should be booked either by contacting the Simulation Consultant or completing the [CSTAR In situ Booking Request form](#) and submitting through cstarinfo@lhsc.on.ca
- Use of equipment, staff, and other resources of CSTAR are subject to availability and must be requested at least two weeks in advance of the simulation and may be subject to a fee.
- Equipment will be inspected prior to departure and upon return to CSTAR. Any damage to CSTAR's equipment during the rental period is the responsibility of the borrower. The individual or his department will be billed for the costs associated with any damages.
- A CSTAR staff member must accompany any equipment that leaves the facility.
- Disposables/Consumables – A fee is associated with any disposable items used during the equipment usage period. Example: Manikin neck skins, IV arm tubing, simulated blood, endo-tracheal tubes, and other airway equipment.

Learner Preparation and Confidentiality

- A full participant briefing, emphasizing communication and teamwork, the importance of participants doing what they would typically do in a real clinical scenario and the need to suspend one's disbelief should precede each initial in situ simulation.
- Confidentiality related to in-situ training must be discussed as part of the scenario briefing and /or debriefing process.
- Where appropriate, learner contracts should be signed by scenario participants.

Safety

- All simulated medications should be labeled as such to prevent confusion with actual clinical supplies
- There must be adequate staffing during the exercise to ensure patient care is not interrupted.
- Following the simulation, a debriefing, led by a qualified instructor, should take place with all participants. Breakdowns in communication and teamwork and contributing conditions in the work environment will be highlighted during the debriefing.
- Follow-up activities or countermeasures to be implemented as a result of patient safety or systems issues identified through the simulation should be clearly documented and communicated to the team and leadership of the local department.

9. Simulated Patients

CSTAR does not provide Simulated Patients but can arrange for the use of trained Simulated Participants through the University of Western Ontario Clinical Skills Learning Program (CSLP) at the Schulich School of Medicine and Dentistry https://www.schulich.uwo.ca/clinicalskills/sim_learning.html

- Costs incurred related to the use of Simulated Patients are at the expense of the course organizer.
- Regardless of where they come from, all Simulated Patients must follow the confidentiality policies outlined by CSTAR and sign a CSTAR confidentiality agreement.
- CSTAR also has a policy for [Unintended Discovery for Simulated Patients](#) that should be reviewed by instructors prior to conducting a simulation using Simulated Patients
- If photographs or video recordings will be part of the simulation refer to the [Photography of Simulation policy](#) for information on informed consent.



10. Reporting Issues

- Equipment – Malfunctioning equipment must be reported to the technical consultant who will attempt to resolve the issue. If the issue cannot be resolved, a room change or replacement of equipment will occur, whenever possible.
- CSTAR Program and Human Resources – For concerns about staff or instructors, please contact the CSTAR Coordinator at 519-685-8500 extension 35897.