QUINTE HEALTHCARE CORPORATION

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Electroconvulsive Therapy

Title: **Electroconvulsive Therapy (ECT)**		**Policy No:**	**3.13.2**
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Policy:

Quinte Health Care (QHC) is committed to ensuring patients receive optimal care. Electroconvulsive Therapy (ECT) is a well-established and highly effective treatment for depression and for several other serious psychiatric illnesses. The attached procedures define the accountabilities of the health care professional through the continuum of care and support a collaborative approach.

1. Purpose:

This policy provides a guideline for the administration of ECT for QHC staff. It is imperative that all health care professionals involved in caring for the client receiving ECT understand each other's roles and responsibility, work collaboratively, and facilitate good communication amongst the team. For the purpose of understanding the procedural section of this policy, roles and responsibilities have been delineated for each individual member of the interprofessional team.

2. Definitions:

Electroconvulsive Therapy (ECT) is a medical treatment which may be clinically indicated in some types of mental illnesses. During treatment an electrical current passes through the brain via electrodes placed on the scalp, inducing a generalized seizure. During the treatment general anaesthetic and muscle relaxants are given to the patient to prevent body spasms.

"Acute Series" -- refers to the initial ECT treatment course in which the purpose is to relieve the acute symptoms of illness with rapid stabilization. Treatment will typically occur two or three times a week for eight to twelve sessions.

"Maintenance Therapy" refers to Maintenance Electroconvulsive Therapy (M-ECT). The purpose of an M-ECT is to prevent a relapse or reoccurrence of acute illness. A course of M-ECT treatment begins after an acute series is finished. Frequency of M-ECT is less than that of an acute series and typically would be titrated down and/or discontinued depending on the individual needs of the patient.

"ECT Suite" refers to the dedicated treatment room where ECT will be administered.

"MoCA" refers to Montreal Cognitive Assessment. The MoCA is a rapid screening instrument for cognitive dysfunction.

"ECT Medical Clearance Form", refers to an assessment form that is completed by the attending psychiatrist before an acute series or M-ECT is initiated. The ECT Medical Clearance Form is a guided comprehensive review that identifies any physical, medical and/or historical factors that may present an increased risk of adverse effects; that may require modification to ECT technique; or that requires further consultation from Anaesthesia and/or Internal Medicine.

"Nursing ECT Pre-Procedure Checklist", refers to a checklist to ensure all required documents and assessments are completed and present in the patients chart prior to initiating ECT.

3. Procedure:

ECT Program Organization:

The provision of ECT is organized as an ECT Program designed to serve both inpatients and outpatients. Treatments and recovery will occur in the ECT Suite and Endoscopy department on Monday, Wednesday, and Friday mornings. There will be three treatment slots available each day if needed. Acute Series ECT treatments will be initiated on inpatients during their hospital admission. QHC ECT program will not be initiating acute series treatments on outpatients. However, in some circumstances, inpatients may be discharged from hospital prior to the acute series being completed and will continue on an acute series treatment course as an outpatient. QHC will maintain these outpatient treatments, as well as any patients who then transition into an extended course of outpatient M-ECT.

Scheduling and Registration:

Scheduling and registration of ECT patients will be the responsibility of the administrative assistants in the Department of Psychiatry. They will manage the ECT slate for both inpatients and outpatients undergoing ECT treatments. In order to ensure the needs of the patient are met in a timely manner, the census of inpatient and out-patients undergoing ECT will need to balance accordingly.

Patients will be scheduled for ECT and pre-registered for their treatment using community wide scheduling.

Scheduling guidelines and prioritization should consider the following when booking clients for their treatments:

a. Appointments should be scheduled in reverse order, beginning with the last slot of the day, working backwards until all three slots in the treatment block are full; 3, 2, 1 respectively.
b. Patients with identified infection control precautions in place must be scheduled during the last slot of a treatment block.
c. When possible, outpatients will be given appointments during later slots in a treatment block and priority for earlier slots is given to inpatients.

Once treatment block schedule is determined, the department of psychiatry will notify Anaesthesia via email a minimum of 24 hours in advance of the scheduled ECT slate, in order to accommodate their schedule.

Outpatients will register the morning of their procedure at the front entrance and proceed to the Same Day Surgery waiting room where the ECT RN will greet the patient and help them prepare for their treatment.

Health Records:

QHC is responsible to ensure compliance with the Personal Health Information Protection Act. The principals and responsibilities outlined in Policy No 2.23.11 *Personal Health Information Protection* (2007) will be maintained for all patients receiving ECT.

Due to the organization of the ECT program, the process for management of the patient's chart varies outpatient acute series and M-ECT. The rational for this is to ensure the paper format of the health record is easily accessible during a treatment course, while maintaining security of the patient record.

Management of Patient Chart: Outpatient Acute Series and M-ECT:

- The outpatient acute series chart will be housed within individual file folders in a secured locked filing cabinet on the in-patient unit
- Each file will be labelled with the patients name and account number
- The ECT RN will collect the chart from the inpatient unit the morning of the procedure and return it to the inpatient unit post procedure
- ECT RN will ensure copies of all procedure records are faxed to the health records department after each treatment, to ensure health record is complete for those attempting to access the patient's chart outside of ECT through the health records department.
- When patient transitions to M-ECT, the original documents housed on the inpatient unit will be returned to Health Records and retrieved as necessary by the ECT RN for all outpatient M-ECT treatments.

ECT and Anaesthesia Equipment:

- ECT equipment will be maintained in good working order with routine annual maintenance inspection of all equipment and back up equipment performed by the Bio-Medical Department. The ECT RN will be responsible for ensuring schedule and record of maintenance of inspection is maintained.
- Only brief pulse wave ECT devices currently approved by Health Canada will be used.
- The ECT RN will be responsible for setting up the ECT equipment prior to each treatment block.
- The treating psychiatrist will ensue the ECT machine is inspected, verifying machine output and electrical safety. The ECT RN will be responsible for documenting inspection is completed on the *ECT Nursing procedure record* prior to each treatment.
- Back up ECT equipment is readily available and if back up equipment is a different make or model there is evidence that clinical staff is aware of differences and can operate appropriately.
- Defibrillator emergency resuscitation equipment and pharmaceuticals are immediately available in the ECT suite.
- Pinel Restraints are available in the recovery area in the event of an acute postictal behavioural event.
- ECT supplies will be managed by the ECT RN. This includes managing inventory and re-ordering of disposable supplies, as well as re-sterilization of re-usable bite-blocks and electrodes.

Interprofessional Team Members: Overview of Roles and Responsibilities

Medical Leader:

The ECT program is led by qualified and experienced psychiatrist credentialed to perform ECT (ECT Medical Leader). The medical leader will keep up to date with recognized standards in ECT best practice and provide supervision of medical and other clinical staff in the ECT program. Collaborating with nursing leadership, they ensure staff are trained and educated in the administration of ECT. They will participate in the credentialing of other ECT psychiatrists, ensuring that credentialing criteria and minimum standards are met as they relate to: training and experience, knowledge of theory and technique, practical skills in administration, ongoing maintenance of knowledge and skills, with periodic reassessment of privileges. Collaborating with other clinical staff in the ECT program, the medical leader will regularly (at least yearly) review the practice patterns, utilization and clinical outcomes of the program in order to recommend and/or facilitate education, supervision, resource allocations, adjustments to clinical protocols, or policy changes to insure ongoing adherence to ECT best practice.

Treating Psychiatrist:

The treating psychiatrist performs ECT and assumes overall responsibility for each ECT treatment that is delivered. Treating psychiatrist is responsible for maintaining their skill and

competency by safely administering or observing at least 8 ECT treatments annually. They will collaborate closely with the team throughout the course of ECT treatments

Anaesthetist:

Anaesthesia will collaborate with psychiatry throughout the continuum of care. This includes the consultation process, anaesthetic administration, and post-ECT management. Anaesthesia will ensure that they adhere to Policy # 3.23.3 *Surgical Pre-Anaesthetic Requirements for Elective* Surgery, as well as the Canadian Anaesthesiologists' Society (CAS) *Guidelines for the Practice of Anaesthesia – Revised Edition*. (2016)

ECT Registered Nurse:

The ECT program has a designated Registered Nurse with experience in psychiatric nursing who is qualified and trained to assist with ECT procedures, as well as basic cardiac life support (BCLS). The ECT RN will also provide education and support to the patients and families, and assist with coordinating care.

Recovery Room Nursing Staff:

A registered nurse working in the recovery room will be responsible for the recovery of the patient immediately following the procedure. In addition to this, there will be a RN certified in critical care available for ancillary support during administration of anaesthetic. The critical care RN is named most responsible nurse in the event of an acute medical emergency.

Psychiatric In-patient Unit Staff:

Nurses on the in-patient unit will collaborate with the Interprofessional team to assist with coordinating care, provide education and support to the patient and families, and provide pre and post ECT care for inpatients undergoing treatment.

Continuum of Care: Pre-ECT, ECT Administration, and Post-ECT Recovery Procedure

Pre-ECT treatment:

Attending Psychiatrist:

1. **Consent:**

a.) Informed consent must be obtained from the patient and/or substitute decision maker (SDM) and documented in the patient's record before treatment is initiated using the *Consent for Treatment* form # 194.
b.) Opinion regarding capacity must be documented and if patient lacks capacity, the reasons for this determination must be noted. If appropriate a second opinion is obtained and documented.

c.) Physician will discuss the need for and describe the proposed treatment. They will review the expected course of treatment, associated benefits and potential risks/side effects, as well as alternative treatments available with the patient and/or SDM. The patient will be informed that they can withdraw consent at any time. This account will be documented in the patient record.
d.) The attending psychiatrist is to provide client with written educational information about ECT to assist patient with their decision.
e.) Informed consent for ECT is given for a specified treatment course (i.e. Acute Series ECT up to a maximum of 15 sessions) or for a defined period of maintenance ECT.
f.) Consent must be renewed if the interval between initiation of treatment is more than 21 days.
g.) Consent must be renewed if an unusually large number of treatments, i.e. greater than 15 are required for acute series ECT.
h.) For maintenance ECT, consent is to be renewed every 6 months or every 15 ECT treatments- whichever comes first.
i.) If consent is withdrawn, the withdrawal of consent and the reasons for the withdrawal will be documented in the medical record.
j.) If a patient has a ‘do not resuscitate’ advanced directive, there is a process in place that includes a discussion of the planned extent of the peri-procedural resuscitative interventions with the patient and/or substitute decision maker. This plan will be documented and appropriately communicated to all relevant staff from treatment to treatment.
k.) The patient or the substitute decision maker will be informed if substantial changes in the treatment procedures arise that may have a major effect on risk/benefit considerations. These discussion will be documented in the clinical record.

2. Cognitive Assessment:

a.) Clinical assessment of cognitive function will be made and documented prior to initiating ECT and at the completion of each course of ECT.
b.) For patients at risk of greater cognitive impairment (i.e. because of age, co-morbid neurological disorders, recent course of ECT) cognitive function will be assessed using the Montreal Cognitive Assessment Battery (MoCA)
c.) For patients at risk of greater cognitive impairment, or for any patient manifesting significant signs of cognitive dysfunction, a MoCA is to be repeated regularly throughout the course of ECT treatments (i.e. weekly during an acute series ECT) in order to measure possible cognitive side effects and to inform treatment decisions.
d.) Patients receiving maintenance ECT should have MoCA renewed every six months. MoCA findings are to be documented in the patient’s health record.

3. ECT Medical Clearance Form:

a.) *The Medical Clearance Form* QHC# 631 will be completed by the psychiatrist within 14 days of initiating ECT. It will be renewed at minimum of every 6 months for patients undergoing extended M-ECT, unless earlier review is indicated otherwise, such as a change in medical status. At the time of renewal all clinically indicated

investigations should be completed as well. This may include but is not limited to: blood work, ECG, chest x-ray, MoCA, allergy and medication review.

4. **Electro Convulsive Therapy Order Set:**

a.) The psychiatrist will complete the Electro Convulsive Therapy Order set prior to the initiation of an Acute Series ECT treatment and/or Maintenance ECT treatments.
b.) The psychiatrist will indicate the type of ECT Series: Acute or Maintenance Treatment
c.) The psychiatrist will indicate the electrode placement
c. The psychiatrist will order pertinent laboratory and diagnostic investigations which must be completed within 14 days prior to initiating a series of acute or maintenance treatments.
d. The psychiatrist will ensure all consults are ordered and completed within 14 days of initiating a series of acute or maintenance treatments. Note: please see parameters for consult related to context and frequency of consults required.

Parameters for Consult:

- If indicated by psychiatrist in the medical clearance form; medically complex patients require Anaesthesia, Internal Medicine and/or family physician consultation prior to initiation of an acute series or M-ECT treatment. Please see policy #3.23.3 Pre-Anaesthesia Requirements for Elective Surgery (2012) Guidelines for Anaesthesia Consultation (2006)
- Psychiatry will be consulted for a second opinion:
  a. After 15 consecutive acute series ECT treatments and/or prior to the commencement of M-ECT series, whichever comes first, in regards to the efficacy of treatment.
  b. Whenever a patient's capacity is in question.
  c. When considering ECT as a treatment for secondary indications or special populations such as Parkinson disease or during pregnancy.

Anaesthesia:

1. Consultation for medically complex patients requiring ECT will occur on Mondays and Tuesdays during the consultation clinic unless otherwise previously arranged between the psychiatrist and anaesthetist.
2. It is the responsibility of the anesthetist to perform a pre- ECT assessment that will allow the psychiatrist and anesthetist to optimize the patient's condition before ECT and tailor the approach to the individual patient's situation.
3. Ensure patient has understanding of the proposed anesthetic.
4. Confirm emergency drugs and equipment are present, available and functional
5. Ensure monitors are attached and obtain a baseline recording of parameters

Inpatient Nursing Responsibilities:

1. Provide support and education to inpatients and families, providing them with patient hand-out. Offer reassurance and answer any questions or concerns.
2. Collaborating with the ECT RN using *ECT Pre-Procedure Checklist* QHC form # 633 to ensure all required documents and assessments completed and filed correctly in the patients chart. Notify ECT RN or psychiatrist of any outstanding requirements that are missing.
3. *Complete Pre-Anaesthetic Questionnaire QHC form # 23* with the patient and/or Substitute Decision Maker.
4. Ensure Current medication sheets are on the chart day ECT procedure.
5. Follow *Acute Series ECT Clinical Protocol* for all in patients receiving ECT.
6. Assist patient in preparation for ECT treatment:
   - Advise and encourage patient to refrain from smoking after midnight prior to the day of treatment
   - Ensure patient remains NPO
   - Hold all benzodiazepines after 1700hrs the day before procedure
   - Remove all metal objects from the patient's hair, as well as any jewellery, nail polish, makeup, dentures, contact lens and eyewear
   - Ask patient to void
   - Ensure correct identification and allergy band is in place if applicable
7. Transfer of Care to the ECT treatment area RN:
   - Prior to transfer, ensure all documentation is complete
   - Accompany patients to the ECT suite or call porter if appropriate
   - On arrival give the patient's chart to ECT RN and report any unusual findings, e.g. low BP, patient had a mouthful of water, etc.
   - Document and report to ECT RN any medications that have been given to patient the morning of procedure
   - Advise the ECT RN if the patient's condition requires special consideration, for example high anxiety level, so that priority of treatment may be determined
   - Advise the ECT RN all relevant infection control concerns as per policy

ECT Registered Nurse:

1. ECT RN will provide support and education to patients and their families, offering reassurance and answering questions or concerns.
2. Ensure all ECT and Anaesthesia equipment, pharmaceuticals are prepared.
3. ECT RN will ensure all required documents and assessments are completed and in the patients chart prior to the initiation of ECT
4. ECT RN is responsible for procuring the patients chart for all scheduled outpatient ECT appointments.
5. Obtain nursing report from inpatient staff and communicating any concerns to the physician(s).
6. Assess patient: complete and/or review the following prior to ECT treatment:
   - Order for ECT and valid consent

- Collect baseline clinical data including height, weight, vital signs
- Ensure patient has remained NPO
- Review pre-ECT medications
- Confirm that outpatients are accompanied by person(s) responsible for driving home post procedure.
- Assist patient in to hospital attire if applicable, offer incontinent brief as necessary
- Ensure patient has voided
- Remove contacts, dentures, metal objects etc.
- Glucometer reading if applicable
- Patient Identification verified as well as allergies
- Initiate intravenous access as ordered and ensure patency

7. Complete pre-ECT electronic documentation
8. Introduce patient to the team, explain the procedure and provide emotional support as needed.

Procedure: ECT Administration:

Treating Psychiatrist:

1. Prior to each treatment the treating psychiatrist reviews the electrode and stimulus parameters, ECT frequency, past EEG morphologies, seizure duration, evidence of clinical recovery and evidence of cognitive changes.
2. Determine that there is adequate contact between the electrodes and the scalp of the patient.
3. Ensure the stimulus dose and administration technique is optimal.
4. Ensures that an appropriate seizure is induced. A modified generalised tonic-clonic convulsion.
5. Seizure duration is monitored by the direct observation of the resulting motor effects and two channels EEG monitoring. Unduly prolonged seizures i.e. over 180 seconds are to be pharmacologically terminated and should be communicated to the anaesthetist.
6. Documentation will include completion of *ECT Procedure Record QHC form # 632*, as well as the patient's clinical response and adverse effects.

Anaesthetist:

1. Administer anaesthetic drugs, ensuring adequate pre-oxygenation, airway control and insert sterile mouth guard, ensuring correct placement in the patient's mouth.
2. Support the mandible in occlusion and patients positioning before the stimulus is delivered
3. Ensure patient is adequately anaesthetised, haemodynamically stable and muscle relaxation is optimal before electrical stimulus is applied.
4. Responsible for pharmacologically terminating seizures persisting for more than 180 seconds.
5. Once patient is stable, rousable, and maintains spontaneous ventilation, they may be transferred to the recovery area.

6. The course of treatment should be documented on the *ECT Anaesthesia Procedure Record QHC form # 616*

ECT Registered Nurse:

1. Work collaboratively with physicians during the procedure, assisting with the following:

    - Apply monitoring equipment to patient
    - Skin preparation: cleanse patient's head and apply abrasive gel
    - Assist in preparing stimulus electrodes
    - Monitor patient's status during treatment, observing duration of motor seizure activity with a stop watch and communicating the duration to the psychiatrist

2. Post-procedure standards and expectations:
    - Disconnect equipment when treatment is completed
    - Assist with repositioning patient as required
    - Ensure documentation is complete prior to transfer to the recovery room
    - Ensure room set up for next ECT treatment

Procedure: Post ECT Recovery:

Treating Psychiatrist:

1. Assess patient post-treatment, collaborate with anaesthetist to determine discharge readiness and provide in-put re: medication administration for post ECT agitation if required.
2. The psychiatrist remains immediately contactable until all patients recover full consciousness and are physiologically stable. Indicate date of next acute series or M-ECT treatment as an order prior to leaving the treatment area.

Anaesthetist:

1. Assess patient post-treatment, collaborate with psychiatrist and nursing staff to determine discharge readiness.
2. The anaesthetist is immediately contactable until all patients recover full consciousness and are physiologically stable.

ECT Registered Nurse:

1. Transfer of care to the recovery room nursing staff.
2. Prepare ECT suite and patient for next treatment
3. After treatment block is complete prepare ECT suite for next day's treatment block, includes sterilization non-disposable supplies.

4. Complete any outstanding administrative duties, includes notifying department of psychiatry of patient's next scheduled treatment date.

Recovery Room Nursing Staff:

1. Receive Care of patient and obtain report from ECT RN.
2. Monitor patients in the post-anaesthesia recovery room, adhering to the post anaesthetic management standards outlined in the policy 08-01 *Medical Directive for Discharge from Post Anaesthetic Care Unit.*
3. Provide reassurance and support to patients
4. Notify physicians of postictal Delirium, call code white and seek emergency support if necessary
5. Provide emergency medical interventions as necessary
6. Patients are to remain in recovery room for minimum of forty minutes post procedure. For patients over the age of sixty five, they will remain in the recovery room for sixty minutes post procedure.
7. Complete all post procedure documentation.
8. Arrange for patient's transfer back to the inpatient unit and/or discharge outpatients when P.A.D.S.S. criteria met.
9. Give inpatient nurse report prior to transfer back to inpatient unit.
10. Confirm patient has accompanied person to assist with transportation.
11. Provide teaching to outpatients about possible side effects from treatment and/or anaesthetic. Instruct patient not to drive for 24hrs.
12. Ensure outpatients personal effects are returned
13. Give outpatients an appointment card for next scheduled treatment

Inpatient Nursing Responsibilities:

1. Receive report from recovery room nurse during transfer of care.
2. Check the patient's vital signs: temperature, pulse, respiration, blood pressure, SpO2, level of consciousness and pain score upon return to the unit. Offer nourishment.
3. Complete post ECT documentation.
4. Immediately report any concerns to the Most Responsible Psychiatrist.

APPENDICES AND REFERENCES

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