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Vermont Department of Mental Health ECT Guidelines

Guidelines effective July 2014

The Department of Mental Health (DMH) in compliance with Title 18, Chapter 177, Section 7408, has adopted standards to govern the practice of electroconvulsive therapy. These standards will be applied to hospitals that practice electroconvulsive therapy in the state of Vermont. DMH has selected *The Practice of Electroconvulsive Therapy, Recommendations for Treatment, Training, and Privileging*, Second Edition, published by the American Psychiatric Association (APA) as the basis of the standards of practice.

The Department of Mental Health is committed to ensuring that practitioners administering ECT in Vermont follow the most recent treatment guidelines published by the American Psychiatric Association's Task Force on ECT. Vermont hospitals which provide ECT agree to follow the APA's Guidelines regarding its administration. While every entity delivering ECT is expected to operate within these guidelines as the standard of practice, DMH has selected a sub-group of these guidelines to specifically monitor.

These guidelines are intended to assist with the identification of important clinical areas regarding ECT administration. They will be used to guide the Department of Mental Health's oversight and monitoring of facilities administering electroconvulsive therapy. These guidelines are not intended to be all inclusive. The APA's *Practice of Electroconvulsive Therapy* should be referred to when additional information is required. APA page numbers are referenced to help locate specific topic areas.

**Vermont Department of Mental Health
ECT Guidelines**

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I. Indications for Use of Electroconvulsive Therapy (APA p 5-25)

A. Principal Diagnostic Indications

For major diagnostic indications, there is either compelling data supporting the efficacy of ECT or a strong consensus in the field supporting the use of ECT.

Major Depression

- Unipolar major depression
- Bipolar major depression, bipolar disorder, depressed, and bipolar disorder, mixed

Mania

- Mania

Schizophrenia

- Psychotic symptoms – abrupt onset
- Catatonic type
- History of a favorable response to ECT
- Schizophreniform disorder
- Schizoaffective disorder
- Psychotic disorders not otherwise specified
- When clinical features are similar to those of other major diagnostic indications

B. Other Diagnostic Indications

For other diagnostic indications, standard treatment alternatives must be considered as the primary intervention before a recommendation for ECT.

Psychiatric Disorders

Psychiatric disorders other than the principal diagnostic indications is not adequately substantiated and should be carefully justified in the clinical record.

Non-Psychiatric Disorders

ECT may be of benefit in the treatment of the following disorders:

- Delirium of various etiologies, including toxic and metabolic.
- Chronic intractable pain
- Delirium
- Parkinson's disease
- Neuroleptic malignant syndrome
- Intractable seizure disorder

II. Pre-ECT Evaluation (APA p 77-79)

Hospital policy should determine the specific components of the routine pre-ECT evaluation. The following should be included at a minimum.

- a) A psychiatric history and examination -including an assessment of the effects of any prior ECT
- b) Cognitive assessment including a mini-mental status exam and Montgomery-Asberg Depression Rating Scale to determine both cognitive (memory) and depressive symptoms baseline . . This will include assessment of memory impairment from a previous course of treatment with ECT.
- c) A medical evaluation
- d) Including an assessment of the teeth and mouth to identify any dental risk factors
- e) Laboratory tests as indicated
- f) An evaluation by an individual privileged to administer ECT summarizing indications and risks, and suggesting any additional evaluative procedures, alterations in ongoing medications, or necessary modifications in ECT technique.
- g) Evaluation by an anesthesiologist
- h) Assessment to include patient's previous exposure to anesthesia, review of any side effects, and allergies

Medical evaluation of risk factors should be carried out prior to ECT (APA p 27-29)

- Unstable or severe cardiovascular conditions
- Aneurysm or vascular malformation
- Increased intracranial pressure
- Recent cerebral infarction
- Pulmonary condition
- Intracranial space occupying lesion
- Serious musculoskeletal problems

III. Use of Electroconvulsive Therapy in Special Populations (APA p 31-58)

Neurologic Disorders

Patients with increased intracranial pressure have substantially elevated risk with ECT; its use must be justified in terms of risk/benefit considerations.

Cardiovascular Disorders

Consultation with a physician who has expertise in the assessment and treatment of cardiovascular diseases should be considered if the pre-ECT evaluation suggests significantly increased cardiovascular risk.

Other Disorders

- Patients with unstable or insulin-dependent diabetes mellitus should be considered for medical consultation.
- Patients with clinically significant hyperthyroidism should receive specialty consultation.
- Specialty consultation should be used with pheochromocytoma
- Patients with recent or evolving retinal detachment should undergo ophthalmologic consultation.

Pregnancy

- In pregnant patients, obstetric consultation should be obtained prior to ECT.
- At facilities administering ECT to pregnant women, resources for managing obstetric and neonatal emergencies should be readily accessible.

Cognitive Disorders

- Consultation with a memory disorder specialist may be indicated for patients with pre-existing cognitive impairments prior to initiation of ECT.
- **Detection** and **monitoring** of the presence of ECT-related cognitive impairment, orientation and memory function should be assessed prior to ECT and periodically throughout the ECT course. If such impairment occurred in the past, then the treatment plan for a future course of ECT should be modified accordingly to minimize chances of such problems as the person experienced in a prior course.
- Based on assessment, potential treatment modifications include changing from bilateral to right unilateral electrode placement, decreasing the intensity of electrical stimulation, increasing the time interval between treatments, altering the dosage of medications, or, if necessary, terminating the treatment course.

IV. Informed Consent for Electroconvulsive Therapy

- A. . All facilities must use the Informed Consent guidelines set by the Vermont Department of Mental Health. The consent forms are available at http://mentalhealth.vermont.gov/sites/dmh/files/publications/DMH-ECT_Informed_Consent.pdf
- B.
- C. Hospitals providing ECT will address specific to informed consent in special circumstances, such as medical guardianship and advanced directive, in their policies and procedures.
- i. Advance Directives
- Patients retain the right to refuse ECT treatment. If the patient has an Advanced Directive, the agent must be notified of the refusal, even if the Advanced Directive includes reference to ECT. If the Advance Directive includes a Ulysses clause regarding ECT, the agent must be notified and, if the agent consents to the ECT, the treatment can be given even if the patient objects.
- ii. Medical Guardianship
- Documentation of medical guardianship must be present in the patient's medical record.
 - Medical guardians with specific authorization have the authority to give consent for ECT treatment.
 - If a person who has a medical guardian refused treatment, the guardian must be notified. The guardian must obtain permission from the court in order to override the objection and consent to the ECT.

V. Education and Training in Electroconvulsive Therapy (APA p 225-233)

A. ECT Treatment Team (APA p 113-115)

Each facility is responsible for designating required tasks to the appropriately qualified staff. These responsibilities should be clearly defined in the policy and procedure manual.

- ECT Psychiatrist* - the ECT psychiatrist should maintain overall responsibility for the administration of the treatment. The ECT psychiatrist's will 1) assessing the patient before beginning ECT 2) ensuring that all pre-ECT evaluations have been completed 3) determining that ECT is still indicated 4) ensuring that ECT is delivered in accordance with policies and procedures 5) instituting modifications in ECT as indicated 6) ensuring proper documentation of evaluations and treatment results
- Anesthesia Provider* - Responsibilities generally include: 1) managing the airway, 2) administering ultra-brief anesthetic and relaxant agents, 3) monitoring cardiopulmonary functioning, and 4) managing acute adverse events.
- ECT Nurse or Assistant* - This person is usually an RN but may be an LPN or an assistant with ECT training and experience. Responsibilities should be consistent with training and clinical competence and generally include assisting the ECT psychiatrist and the anesthesia provider

with duties such as: 1) coordinating treatment logistics, 2) readying the treatment area for ECT, including checking the proper functioning of equipment (e.g. suction, physiological monitoring equipment, etc.), 3) assisting patients to and from treatment area, 4) applying stimulus and monitoring electrodes, and monitoring vital signs. Additional duties for ambulatory ECT patients may include assessing patients before each ECT treatment and delivering post recovery care.

- iv. *Recovery Nurse* - This person is a registered nurse whose responsibilities include monitoring of vital signs, pulse oximetry, ECG, and mental status, 2) administering oxygen and intravenous fluids, 3) provision of suctioning, and 4) management of postictal disorientation and agitation.

B. Responsibility of Facility (APA p 113-115)

The director of each such facility, or his or her designee, should appoint a psychiatrist privileged to administer ECT to be responsible for maintaining up-to-date policies and procedures regarding ECT, for ensuring that these policies and procedures are met, and for seeing that appropriate staffing, equipment, and supplies are available.

- Each such facility should implement an ECT quality improvement program.
- All persons involved in the delivery of ECT should be privileged in the performance of clinical ECT-related duties by the organized medical staff of the facility under whose auspices ECT will be administered.
- Facilities shall ensure that psychiatrists and staff members who are privileged in ECT administration should supervise psychiatry residents involved in the delivery of ECT and management of patients receiving ECT.

C. Privileging in ECT (APA p 241-245)

- Each member of the ECT treatment team, as defined in Chapter 9, should be clinically privileged to practice his or her respective ECT-related duties or be otherwise authorized by law to do so. Such privileging should be carried out according to procedures established by the organized medical staff of the facility or its equivalent under whose auspices ECT is administered.
- The medical director of each facility should ensure that privileges to administer ECT are granted only to psychiatrists with demonstrated proficiency to deliver ECT in a safe and effective manner.
- The medical director, with the assistance of appropriate individuals, should develop a formal written plan for provision and maintenance of ECT privileges. This plan should designate those responsible for determining whether privileging criteria have been met. Proceedings of all privileging actions should be documented.
- The applicant's education, training, experience, and history of privileging in ECT should be reviewed by the committee designated for this purpose to determine whether the applicant is competent to practice ECT. If so, clinical ECT privileges may be granted following satisfactory administration of ECT as observed by a designated in-house evaluator or, if necessary, by an outside consultant.
- A practitioner with insufficient knowledge in ECT procedures should undertake appropriate training. Privileges may then be awarded after completion of 1) the prescribed training experience, 2) the local orientation process, and 3) demonstration of proficient administration of ECT in the local setting.
- Reassessment of privileges should occur at least every 2 years or as specified by policies of the institution. Policies developed by the facility for this purpose should contain the

following components 1) Use of a quality improvement program to monitor selected aspects of ECT treatment team performance, review of any apparent deficits, and institution of corrective action 2) Ongoing monitoring of number of ECT treatments administered by treating psychiatrists, so that individuals whose practice becomes inactive can be given the opportunity to demonstrate use of proficient technique on resuming an active clinical role 3) Demonstration of CME experience in ECT-related areas.

D. Continuing Education Programs

- Regular continuing education and training opportunities in ECT should be available for all ECT treatment team members in order remain informed about best-practices in ECT.
- Continuing education in the form of conferences, case discussion, and consultation is expected for all providers to remain current in their practice.

VI. Location, Equipment, and Supplies (APA p 117-124)

A. Treatment Site and Equipment

The treatment site should be conducive to the delivery of ECT treatment for both the patient and staff.

- The treatment site should include separate areas for waiting, treatment, and recovery.
- If outpatient ECT treatment is provided, there should also be space identified for patients and those accompanying the patient during the post recovery period.
- Policies should identify where ECT related equipment and supplies are stored within the treatment site.
 - Staff responsibilities regarding the treatment site should be included in the policy and procedure manual.
 - Patient medical records should be readily accessible to the ECT treatment team during treatment.

Since ECT differs from other “typical” operative procedures, hospitals that designate general operating rooms, surgical suites, and/or common recovery rooms for ECT treatment should identify any additional equipment that is specific to the delivery of ECT and should be available during treatment. When such treatment sites are used, providers should delineate any additional steps that may be needed to assure patient privacy.

The treatment site should contain sufficient quantities of required and optional equipment, medications and supplies to administer ECT safely. (APA p 118) .

- Providers should identify the equipment to be available in administering ECT.
- Equipment should be available in both the ECT treatment area and the recovery area to provide suction; deliver intermittent positive-pressure oxygen; monitor vital signs, including cardiac rhythm and hemoglobin oxygen saturation.
- The treatment area should also contain equipment for intubation, seizure induction (brief pulse waveform ECT device), physiologic monitoring including EEG, and resuscitation.
- The recovery area should also contain ECG monitoring and pulse oximetry devices. More specifically, standard equipment in the treatment area includes: 1) stretcher or bed with

side rails and the capacity to raise both the head and feet, 2) automatic or manual blood pressure monitoring device, 3) stethoscope, 4) ECT device with built-in EEG monitoring, 5) ECG monitoring equipment, 6) sphygmomanometer cuff to permit detection of ictal motor duration, 7) pulse oximeter, 8) oxygen delivery system, 9) suction apparatus, 10) intubation set for managing airways, and 11) reflex hammer.

- When treating patients who are at significantly increased risk of musculoskeletal injury (e.g. severe osteoporosis) or when using nondepolarizing muscle relaxant agents (e.g. curare, atracurium, mivacurium, rocuronium), it is recommended that a peripheral nerve stimulator be available to ensure the adequacy of muscle blockade before delivering the electrical stimulus. A defibrillator should be readily available. Access to a backup ECT device and additional cables is suggested. Staff responsibilities relating to equipment should be delineated including its availability in the treatment area, safety checks and general care and maintenance.
- Medications used during the administration of ECT should be located within the treatment site. (APA p 118-119, 122-123)
- Pharmacologic agents that may be required during ECT treatment should be identified. Such medications include: 1) primary anesthetic agent, 2) primary muscle relaxant, 3) an anticholinergic agent, 4) medications for first-line management of arrhythmias, hyper- or hypotension, and cardiac arrest, 5) medications for the initial management of severe bronchospasm or anaphylactic shock, other agents for managing status epilepticus, 6) antinausea medications, and 7) non-narcotic analgesics.
- Practices should cover storage and staff access to medications within the ECT treatment area.

B. Supplies (APA p123-124)

- The treatment area should have sufficient quantities of supplies to induce analgesia, monitor the physiologic functions (including seizure activity) and provide ventilation and resuscitation.
- Necessary supplies include: Bite blocks, infusion sets, intravenous fluids, masks for oxygen therapy, oro and nasopharyngeal airways, endotracheal tubes, suction catheters, syringes and syringe needles in assorted sizes, electrode gel or paste, monitoring electrode pads and leads, stimulus and monitoring cables for ECT device, recording paper for monitoring use, alcohol pads, material to prepare stimulus and monitoring electrode sites, gauze pads in assorted sizes, tape in assorted sizes, disposable gloves, container for disposal of sharps and clinical waste.

VII. Treatment Procedures (APA p 125-195)

A. ECT Devices (APA p 139-142)

Waveform Characteristics

- A brief pulse stimulus is the standard of care.
- Because of the potential aggravation of cognitive side effects and the lack of evidence of any therapeutic advantage, the continued use of sine wave stimulation is not justified.

B. Treatment Parameters

Practitioners should have an established treatment protocol for selecting stimulus dosage that is specific to the patient's individualized treatment plan.

Ictal Motor Activity

Seizure duration should be documented at each treatment and should be monitored by timing the duration of convulsive movements.

Ictal EEG Activity

Scalp electroencephalographic (EEG) monitoring should be carried out on at least a one-channel basis.

C. Standard of Care for Anesthesia Monitoring

- ECG monitoring should begin prior to anesthesia induction and continue until spontaneous respiration resumes and any treatment-associated ECG abnormalities have resolved.
- There should be capacity to provide a paper copy of ECG activity in the event that later consultation is necessary.
- Systolic and diastolic blood pressure, as well as heart rate or pulse, should be measured before anesthetic induction and at intervals throughout the procedure. Pulse oximetry should be used during ECT.

D. Frequency and Number of Treatments (APA p 174- 177)

- It is the responsibility of the provider to determine the frequency and number of treatments as indicated by the severity of illness and by the relative benefits and risks of ECT treatment.
- Providers should address the following:
- Frequency of treatments: including the usual number of weekly treatments (commonly scheduled three times per week in the United States), variations in frequency, and review of frequency, based on patient response.

Number of treatments: including the usual number of treatments for specific types of psychiatric disorders (e.g. 6-12 treatments for major depression), changes in the course of treatment based upon patient response, clinical improvement, and assessment of cognitive adverse effects. All of these factors contributing to the course of treatment will be discussed with the patient.

E. Evaluation of Treatment Outcomes (APA p 197-202)

Therapeutic Response

- Each treatment plan should indicate specific criteria for meeting patients' therapeutic goals, whether that may be clinical improvement and/ or remission. .

Clinical Assessments

- Clinical assessments should be performed by the attending physician or designee and documented prior to ECT and after every one or two ECT treatments, preferably at least 24 hours after the treatment.

Clinical rating instruments will be routinely utilized to monitor treatment outcomes and identify changes in symptoms over the ECT course. Standardized scales in use at this time include the Montgomery-Asberg Depression Rating Scale and the Global Impressions Scale.

F. Adverse Effects (APA p 199-202)

Cognitive Changes

Evaluation of cognitive function will be assessed to identify changes in orientation and memory through the use of objective evaluation and by subjective report. Assessment should be gathered to determine baseline functioning and should be repeated at least weekly during the Index course of treatment, and will include a mini mental status exam.

- When possible, cognitive assessment should be performed at least 24 hours after an ECT treatment.
- The presence and severity of disorientation, anterograde amnesia, and retrograde amnesia should be monitored in terms of both objective findings and self-report. This evaluation should consist of bedside assessment of orientation and memory (both retention of newly learned material and recall of recent and remote events) and/or administration of formal neuropsychologic measures. A five point Likert scale will be used by all facilities to evaluate patients' subjective self-report of changes in memory.
- If orientation and/or memory deteriorate during an ECT course, modifications to the ECT procedure should be considered. [*This was where the examples of modifications were to be relocated, from the current listing under "special populations"] If such effects persist after completion of the ECT course, a plan should be made for post-ECT follow-up assessment which will include appropriate referrals to specialists and treatment providers to address memory changes.

Other Adverse Effects

- Any sudden onset of new risk factors or worsening of previously identified risk factors should be evaluated before the next ECT treatment. In this regard, patient complaints should be considered carefully.
- Any serious medical event occurring during the course of ECT will be reported to the Department of Mental Health. Serious is defined as an event that *can* result in death, loss of a body part, disability, loss of bodily function, or require major intervention for correction (e.g. higher level of care, surgery) *National Quality Forum (2011) Form follows in Attachment A.*

VIII. Treatment Following Index ECT Course (APA p 201-216)

Indications for Continuation ECT

If the patient has a history of illness that has been responsive to ECT and one of the following has occurred:

- Pharmacotherapy alone has not been effective
- Pharmacotherapy cannot be safely administered
- The patient prefers treatment with ECT

Pre-ECT Evaluation for Continuation ECT (APA p 210)

- Repeated informed consent will be obtained at least every 12 treatments or every 6 months, whichever comes sooner.

Prior to each continuation ECT treatment, pre-ECT evaluation will include standards required for Index course of treatment

IX. Documentation (APA p 217-220)

Facility Responsibilities

It is the responsibility of the facility's medical director (or medical staff, if no such individual is defined) to ensure adequate documentation regarding ECT.

Prior to an Index ECT Course

The ECT psychiatrist should confirm that the following documentation is included in the patient's clinical record (a checklist or summary format is encouraged):

- Reasons for ECT referral
- Mental status, including baseline information
- Signed consent document
- Statement covering other elements of the informed consent process
- Pertinent laboratory results
- Consultation reports as indicated
- Discussion of any substantial alterations planned in the ECT procedure

Between ECT Treatment Sessions

- Notes by the attending physician or designee should be entered in the patient's clinical record at least every two treatments during an index ECT course and should contain information about the presence or lack of a therapeutic response and any other substantive change. Notes describing the presence or absence of adverse cognitive effects should be entered into the record at least weekly.
- Documented justification should be provided before exceeding a specified maximum number of treatments (set by each facility) in an index ECT course (see APA sections 8.4 and 11.11.2).
- With continuation or maintenance ECT, documentation of the presence or absence of beneficial response should occur either prior to each treatment or at least monthly if the patient is stable

and treatments occur more than twice per month (see APA Section 13.2.2.2.). The presence or absence of adverse cognitive effects should be noted at least every three treatments.

- When a continuation or maintenance ECT series is extended by an initial or subsequent 6-month period, the rationale should be documented (see APA Section 13.2.3.3. and 13.3.2.).

At the Time of Each ECT Treatment Session

For each treatment session, at least the following information should be documented in the patient's clinical record:

- Baseline vital signs
- Medication, including dosage, given before entering the treatment room
- Note from the anesthetist describing the patient's condition while in treatment/recovery area
- Where applicable, a note from the ECT psychiatrist or anesthetist covering any major alterations in risk factors or presence of adverse effects or complications, including actions taken and recommendations made.
- Medication, including dosage, given in treatment and recovery areas
- Stimulus electrode placement
- Stimulus parameter settings for each stimulus
- Seizure duration and/or other indices of seizure adequacy (noting whether motor or electroencephalographic)
- Vital signs taken in treatment room and recovery area
- Note from the recovery nurse or the anesthesia provider documenting occurrence and management of any complications during recovery and patient's condition on leaving the recovery area
- A "time-out" should be implemented prior to the initiation of each treatment session in accordance with Joint Commission guidelines. The time out should include verification of the patient's identity, and agreement on the procedure to be done. The time out should be briefly documented in the patient's medical record.

Following Completion of an Index ECT Course or a Continuation/Maintenance ECT Series

The attending physician or designee should enter the following information into the clinical record:

- Summary of overall therapeutic outcome and adverse effects experienced as a result of ECT course or series and rationale for specific choice of endpoint
Plan for post-ECT clinical management and plans for follow-up of adverse effects if any have been identified.

X. REFERENCES

American Psychiatric Association [Weiner, R.D.; Coffey, C.E.; Fochtmann, L.; Greenberg, R.; Isenberg, K.E.; Moench, L.; and Sackeim, H.A.]. *The Practice of ECT: Recommendations for Treatment, Training and Privileging*. Second Edition. Washington, D.C. American Psychiatric Press, 2001.

Electroconvulsive Therapy Review Guidelines, State of New York Office of Mental Health, 2012.

Attachment A
VERMONT DEPARTMENT OF MENTAL HEALTH
SIGNIFICANT EVENT DESIGNATED HOSPITAL REPORT

The Department of Mental Health is to be notified of a significant event that occurs in a Designated Hospital. A verbal report will be made within 24 hours to the DMH Quality Management Coordinator at 802-828-5846. This completed form must be submitted and faxed to the Department of Mental Health within 24 hours of the significant event via fax to Sarah Sherbrook at 802-828-3823.

Patient name: _____ **DOB:** _____ **Admit Date:** _____

Hospital: FAHC RPMC CVMC WC BR VPCH

Event: Date **Time** **Location**

Type of event (injury, abuse, etc.):

- Death Serious Injury/Medical Emergency Suspected Abuse/Neglect/Exploitation
 Criminal Activity/Law Enforcement Elopement Other

Persons who witnessed or were involved in the event:

Description of event (identify precipitants, interventions used by staff to attempt to prevent/manage the event, and description of behaviors observed during the event):

Action(s) taken as a result of the event:

Describe any planned follow up in response to the event:

Persons and agencies notified (include when and how notified; if an agency, name of staff to whom report given)

Person reporting:

Phone number:

Printed name:

Date: