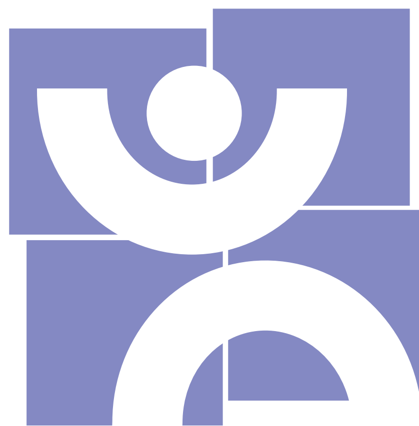
THE COLLEGE OF REGISTERED PSYCHIATRIC
NURSES OF BRITISH COLUMBIA

ROLE OF THE REGISTERED PSYCHIATRIC NURSE IN THE ADMINISTRATION OF ELECTROCONVULSIVE THERAPY



PRACTICE GUIDELINES

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I. INTRODUCTION

The mission of the College of Registered Psychiatric Nurses of British Columbia is to serve and protect the public. The College of Registered Psychiatric Nurses of B.C. is responsible through self regulation to assure a safe, accountable and ethical level of psychiatric nursing practice. The College is accountable to the public through government regulation under the Health Professions Act.

The practice of psychiatric nursing is guided by a set of values and beliefs that are included in the Code of Ethics, the Standards of Psychiatric Nurses and the Competencies Expected of the Beginning Practitioner of Psychiatric Nursing.

At the core of psychiatric nursing practice is the therapeutic relationship between the patient (individual, family, group and/or community), and the individual Registered Psychiatric Nurse (RPN).

As a health regulatory body, the College shall have a practice guideline regarding the role of the Registered Psychiatric Nurse in the administration of Electroconvulsive Therapy (E.C.T.). This practice guideline will be provided to all registrants of the College and will be shared with all consumers and stakeholders.

This document has been developed to assist RPNs to:

- provide direction for the decision making process to assist the patient and interdisciplinary team to determine whether E.C.T. is the most appropriate treatment option

- provide guidelines for the care of a patient receiving E.C.T.

II. DEFINITION OF ELECTROCONVULSIVE THERAPY

Electroconvulsive Therapy(E.C.T.) has long been recognized as an effective treatment for a number of psychiatric and neuropsychiatric conditions. First introduced by Cerletti in 1938, E.C.T. is the induction of a generalized seizure via the application of electrical stimulation to the brain.

Electroconvulsive therapy is the artificial induction of a generalized seizure by passing a current through electrodes applied to one or both temples. The patient is anesthetized and the seizure attenuated by the administration of a muscle relaxant medication.

Principles and Practice of Psychiatric Nursing 6th Edition Stuart & Sundeen, 1998

This is defined as a medical procedure in which a brief electrical stimulus is used to induce a cerebral seizure under controlled conditions.

Canadian Psychiatric Association, 1992

III. MECHANISM OF ACTION

The specific way in which E.C.T. works has been the subject of extensive research, but the precise mechanism of action is still not known.

During E.C.T., a small amount of electrical current is sent to the brain. The current induces a seizure that causes a biochemical response affecting the entire brain, including areas that control mood, appetite and sleep.

The Neurotransmitter Theory suggests that E.C.T. acts like antidepressant medications by enhancing deficient neurotransmission in monoaminergic systems, improving dopaminergic, serotonergic and adrenoergic neurotransmission.

The Neuroendocrine Theory suggests that E.C.T. releases hypothalamic and/or pituitary hormones ie. prolactin, thyroid stimulating hormone and adrenocorticotropic hormone, resulting in antidepressant effects.

The Anticonvulsant Theory suggests that E.C.T. treatment exerts a profound anticonvulsant effect on the brain that results in an antidepressant effect.

Despite unanswered questions regarding its mechanism of action, E.C.T. is proven to be a safe and effective treatment for a variety of psychiatric disorders and some medical conditions when properly administered.

IV. CLINICAL INDICATORS FOR E.C.T.

PRINCIPAL DIAGNOSTIC INDICATIONS

The following are diagnoses for which E.C.T. is a **treatment** alternative:

(a) **Major Depression** (satisfying DSM-IV-TR criteria for major depressive disorder or Bipolar Disorder [depressed or mixed mood]), especially in association with:

- psychotic/delusional features
- significant and acute suicidality
- reduced oral intake compromising health
- lack of response to adequate medication regimes
- previous effectiveness of E.C.T.
- advanced age or medically frail patients whose risks of standard antidepressant therapy outweigh the risks of E.C.T.
- catatonia
- patient preference

(b) **Mania**

(c) **Schizophrenia** with....

- catatonia
- positive or affective symptomatology with abrupt/recent onset
- history of favorable response to previous E.C.T.

(d) **Schizophreniform** and **Schizoaffective** Disorders

OTHER DIAGNOSTIC INDICATIONS

The following are diagnoses for which E.C.T. should be recommended only after standard treatment alternatives for these disorders have been considered:

- **Catatonia secondary to medical conditions**
- **Neuroleptic Malignant Syndrome**
- **Parkinson's Disease (particularly with "on-off" phenomenon)**
- **Hypopituitarism**
- **Intractable Seizure Disorder**
- **Delirium**
- **Severe organic mood and psychotic conditions (satisfying DSM-IV-TR criteria for mood disorder and psychosis due to a general medical condition) displaying symptomatology similar to those of the "principal diagnostic"; such as major depression accompanying dementia, or delirium of various etiologies, including toxic and metabolic.**

SPECIAL POPULATIONS

Pregnancy/Postpartum Period

E.C.T. is considered safe and effective during all stages of pregnancy and postpartum period.

Anesthesia and obstetrical consultation should be obtained as soon as possible because of potential differences in technique, monitoring and positioning.

Children & Adolescents

Should only be considered when:

Symptoms are severe, persistent and significantly disabling, including life threatening symptoms and medication - resistant or intolerant to other methods of treatment.

Elderly Patients

Being elderly in itself confers no specific risk, however, being elderly increases the likelihood of having physical illness and dementia, which may increase the risk for adverse effects due to E.C.T.

Preoperative evaluation and anaesthesia consultation is recommended.

Relative Contraindications (Situations Associated with Substantial Risk)

- (a) CNS space occupying lesion or other conditions with increased intracranial pressure
- (b) Recent cerebral infarction
- (c) Bleeding or otherwise unstable vascular aneurysm or malformation
- (d) Retinal detachment or acute narrow angle glaucoma
- (e) Pheochromocytoma
- (f) Anaesthetic risk rated at ASA (American Society of Anaesthesiologists) level 4 or 5
- (g) Unstable cardiac function such as recent myocardial infarction, unstable angina
- (h) Severe valvular cardiac disease, critical aortic stenosis
- (i) Pulmonary conditions such as severe C.O.P.D. (Chronic Obstructive Pulmonary Disease), asthma, or pneumonia

NOTE: Some caution should be taken with cardiac pacemakers and implanted automatic defibrillators.

The decision to treat patients presenting with one of these conditions should be based upon the balance of risk between the acuity of the patient's condition (ie: life threatening), and the relative safety of E.C.T. for that patient.

The Registered Psychiatric Nurse's Role in Determining E.C.T. as a Treatment Option

The RPN is part of an interdisciplinary team who works collaboratively with the patient and family to

determine treatment options, which are based on the individual needs of the patient. The RPN assists by:

- obtaining information from past records/files (history-taking)
- interviewing patient and family
- gathering behavioural observational data
- provide comprehensive biopsychosocial assessment of the patient and relevant systems including identification of risk factors related to patient safety
- documents database record and communicates findings to interdisciplinary team

The Registered Psychiatric Nurse's Role When E.C.T. Has Been Determined as the Treatment Choice

1. **Work in accordance with the following Documents:**
    - "Electroconvulsive Therapy: Guidelines for British Columbia", B.C. Ministry of Health Services, March 2002
    - American Psychiatric Association Task Force Guidelines, "The Practice of Electroconvulsive Therapy" and the Canadian Psychiatric Association Position Paper "Electroconvulsive Therapy"
    - established written agency policies
    - CRPNBC Standards, Competencies and Code of Ethics.

2. **Provide emotional support and respond to the information/educational needs of the patient and family members.**
    - Provide patient with appropriate educational information - ie. video, internet sites, books, brochures.
    - Provide E.C.T. teaching , taking into consideration the patient's level of anxiety, readiness to learn and ability to comprehend.
    - Records education given and response from patient and /or family in patient's health file
    - Develop and implement a teaching plan for identified information deficits
    - Support the patient and family in their need to discuss, question and explore their feelings and concerns
    - Provide patient with opportunities for communication
    - Allow patient opportunities to express feelings/fears/attitudes toward E.C.T.
    - Clarify misconceptions and emphasize the therapeutic value
    - Use appropriate nursing measures to reduce anxiety
    - Encourage a tour of the E.C.T. Treatment Suite
    - Encourage patient to talk to another patient who has benefitted from E.C.T.
    - Facilitate family presence before and after E.C.T. if patient and family desire

3. **Ensure Pre-E.C.T. Protocols/Procedures are completed (should be done within 10**

days for inpatients and 30 days for outpatients).

Pre-E.C.T. Evaluation: Ordered by Attending Physician includes

- Physical examination
- Dentition evaluation - to identify problems that could affect the use of the bite-block
- Electrocardiogram - for those over age 45 or with known cardiovascular disease
- Other routine lab investigations are guided by the patient's history and findings from the physical exam. They may include hemoglobin, electrolytes and renal function tests
- Chest x-ray - if unstable cardiopulmonary condition
- Cervical spine x-ray - if suspected cervical spine instability
- Anesthesia consult - strongly advised for patients over 60, patients with significant cardiovascular/neurologic conditions, patients who are pregnant and patients with potentially unstable cervical spine instability
- Specialty consultation - advised for patients with medical conditions with substantial risk ie. cardiology, obstetrics

Pre-E.C.T. Referral & Documentation: The attending physician should document and convey the following information to the E.C.T. Team

- Indication for the use of E.C.T.
- Comorbid psychiatric diagnoses
- Concurrent medical conditions
- Current medications
- Physical examination date and findings, including baseline blood pressure and pulse rates
- Whether consent was obtained and who signed the consent
- Whether educational information about E.C.T. was given to patient and/or family
- Whether an anesthetist was consulted - A.S.A. category
- Copies of pertinent specialist consultations during pre E.C.T. workup
- Whether patient has a pacemaker or implanted automatic defibrillator
- Identify which medications should be held during each E.C.T. treatment, which medications should be given on the morning of E.C.T. and which medications should be continued post E.C.T.
- Dentition/presence of dentures
- Allergies
- Baseline cognitive function
- Prior history of E.C.T. and outcome
- Electrode placement preference - bilateral/unilateral
- Name and signature of attending physician

4. Assist With Informed Consent for Electroconvulsive Therapy

All patients (and families, or substitute decision-makers where appropriate) MUST be given the opportunity to be adequately informed about E.C.T. when it is recommended

as a treatment option. Informed consent from **voluntary patients** must be obtained using the procedure set out in the HEALTH CARE (CONSENT) AND CARE FACILITY (ADMISSION) ACT.

For **involuntary patients** requiring E.C.T., consent is obtained by the process set out in the MENTAL HEALTH ACT.

Although it is the physician's ultimate responsibility to explain the procedure and obtain consent, the Registered Psychiatric Nurse plays an important role during the consent process, which is a dynamic process that continues throughout the course of treatment.

- The RPN is able to assess whether the patient comprehends the explanation.
- The RPN should be present when the information for consent is discussed with the patient.
- The most appropriate nurse is the one who has established a trusting and therapeutic relationship with the patient.
- The RPN should ensure the patient has been provided with a full explanation, understands the nature, purpose, risks and benefit of E.C.T., other treatment options and implications of such treatment and including the option to withdraw consent at any time and has all questions answered before signing the consent form.
- The RPN should repeat the information at regular intervals for patients who have cognitive impairments and/or anxiety, or who are unable to comprehend or retain new information.

5. **Ensure there is a process to observe, assess and evaluate patient progress prior to, during, and following course of treatment.**
   i.e.rating scales, narrative documentation in patient file
   - Provide an ongoing process to evaluate progress with patient, interdisciplinary team members and patient's family (when appropriate).

6. **Be responsible to maintain current knowledge and practice in the administration of electroconvulsive therapy.**

VI. GUIDING PRINCIPLES - PLANNING/INTERVENTION

The RPN plans and implements psychiatric nursing interventions for the safe therapeutic care of patients receiving E.C.T. which includes the following:

- **Incorporates information related to the administration of E.C.T. into the patient's plan of care**
- **Explains to patient and completes the following sequence of events**

Night Before E.C.T.

- Ensure shampoo/shower
- No meals that includes meat, fried or fatty foods for 8 hours prior to treatment. If patient ingests solids/fluids within NPO period, notify E.C.T. Team. Patients scheduled later in the day may have a light meal ie. (toast and a clear fluid) for up to six hours prior to a treatment and clear fluids (tea without milk, apple juice, clear carbonated drinks) for up to two hours prior to treatment
- Ensure allergy/ID bands are in place
- Nail polish/make-up removed for accurate oxygen saturation monitoring and proper ECG electrode contact

Morning of E.C.T.:

- Maintain NPO status, (as outlined above)
- Re-check doctor's order and E.C.T. consent
- Do blood sugar levels and document (if ordered)
- Do pre E.C.T. vital signs and document
- Ensure all pre-E.C.T. medications are given one hour before E.C.T., with sips of water (if oral)
- Ensure Body weight is recorded on E.C.T. checklist
- Ensure all documentation accompanies patient to E.C.T
    - referral and booking forms
    - medication administration records
    - E.C.T. treatment records
    - anesthesia consult
    - nursing progress notes
    - past E.C.T records
    - E.C.T. consent forms
    - doctor's order
    - progress notes from the referring psychiatrist
    - ECT recording forms/check lists/rating scales as per agency policy
    - lab and x-ray reports
- Dress patient in front buttoning top and pants (if possible)
- Dentures/glasses/hearing aids - remove unless agency policy allows to wear during transport
- Remove contact lenses , jewelry, hair accessories

- Give thorough mouth care to facilitate suctioning and airway management
- Have patient void bladder and bowels prior to treatment - use adult undergarments if patient is incontinent
- Assess patients level of anxiety
- Provide patient with support and reassurance
- If patient is on constant attention, aggressive or unpredictable, a nurse who knows the patient should accompany patient throughout E.C.T. treatment and recovery
- Assess the need for patient to utilize a wheelchair as they can be unsteady and disoriented following treatment

Any changes in medical condition, risk factors, presence of adverse effects or complications MUST be documented AND verbally reported to the E.C.T. suite staff.

VIII. GUIDING PRINCIPLES - EVALUATION

The RPN uses an evaluation process for the nursing care of patients receiving E.C.T. which includes the following post ECT management interventions:

- Receives information from the E.C.T Nurse who will phone the ward/facility/ agency with a brief report if any concerns or complications have occurred during the patient's treatment or recovery - which will facilitate communication of significant events during ECT and to ensure follow-up on the ward/facility/agency.
- Reviews the doctor's orders, progress notes and E.C.T nursing record containing information re medications oral/IV fluids and patient's progress during and after E.C.T. Process any new physician's orders.
- Assess the patient's physical and mental status.
- Complete vital signs within 5 minutes of return to ward/agency/facility and document on ECT nursing record (or agency equivalent). V/S may need to be monitored more frequently as clinically indicated. Vital signs include temperature, pulse, respirations and blood pressure.
- Assess the frequency of observation required based on the patient's return to pre E.C.T. vital signs and level of consciousness (eg. q. 15 min., q. 30 min., q 1 hour).
- Assess the safety of the patient's environment and his/her readiness to ambulate and to swallow before giving medication and breakfast.
- Assess the patient's need for sleep/rest and fluids/nutrition.
- Assess patient for nausea, headache, confusion, delirium, muscle soreness. The doctor can prescribe appropriate medications for some side effects.
- Document any side effects of treatment and interventions provided.
- Ensure patient is supervised by a responsible adult for 24 hours following treatment, including off-ward activities.
- For out-patients - ensure patient is accompanied by a responsible adult and will be escorted home. Instruct patient not to drive a vehicle for 24 hours.
- Re-involve patient in regular care plan activities/meals as tolerated.
- Provide clear orientation to person, place, time, situation.
- Provide ongoing reorientation to person, place, time, situation as needed.

- Record patient's behaviours, mental status and general condition on appropriate agency document.

ONGOING EVALUATION

- Discusses effects of E.C.T. with patient/family including concerns, side effects, improvement of symptoms.
- Maintains an ongoing education/information process with patient and/or family. Documents same including patients/families response.
- Discusses and reviews the patient's progress with the other members of the interdisciplinary treatment team.
- Implements changes during next prescribed treatment period.
- Makes recommendations and modifies treatments as prescribed.
- Plans one-on-one time to allow patient to verbalize thoughts/feelings/concerns/fears.
- Elicits feedback from patient regarding care received during E.C.T. procedures.
- Provides comprehensive biopsychosocial re-assessment of the patient and relevant systems including identification of risk factors related to patient safety.
- Documents on agency data base record.
- Participates in program quality improvement activities relevant to E.C.T. services.

VIII. DOCUMENTATION DURING A COURSE OF E.C.T.

Registered Psychiatric Nurses must ensure there is a documentation process to observe, assess and evaluate patient progress prior to, during and post E.C.T. course of treatment.

Many agencies utilize recognized Ratings Scales which are completed prior to, during and following a course of treatment.

Ensure the following documentation is completed:

- pre-treatment assessment data and interventions
- patient/family education provided including their response to the education
- the informed consent process
- post treatment assessment data and interventions

IX. EDUCATION

Registered Psychiatric Nurses play an important role in the administration of Electroconvulsive Therapy, including patient/family education, assisting with the informed consent process, preparation prior to treatment(s), to follow up and support after treatment(s).

It is the responsibility of the authority providing the E.C.T. service to ensure that professionals (including RPNs) who provide this service have the necessary knowledge and skills.

RPNs are expected to be knowledgeable about the advances, best practice and current trends in the administration of E.C.T.

The following are education/training guidelines for schools of nursing that prepare RPNs and hospitals and other agencies who hire RPNs.

Training Schools:

Education about E.C.T. should be incorporated as basic training and include the following:

- the history of E.C.T
- indications for use and potential risks
- informed consent procedures

Hospitals/Agencies

Registered Psychiatric Nurses working in psychiatry should be provided with a nursing orientation that includes:

- the history of E.C.T.
- indications for and potential risks of E.C.T.
- pre-E.C.T. assessment including pre-requisite medical review

- informed consent procedures
- E.C.T. technique
- information available to be included in patient/family education
- documentation expectations

Registered Psychiatric Nurses working in treatment areas and recovery rooms:

- should be provided with nursing orientation which includes the above. In addition, RPNs involved in direct administration of E.C.T. in treatment areas and post-anaesthetic recovery rooms, require additional training, experience and certification or be supervised by nurses who have appropriate training, education and certification as set out by agency policies and/or health authority guidelines.

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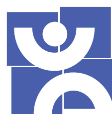

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