health

Nursing practice – working with people prescribed and undergoing electroconvulsive therapy

Department of Health guideline



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Preamble

This is the first dedicated guideline identifying the role of nurses and related practice guidelines for caring for people who are prescribed electroconvulsive therapy (ECT) in Victoria. The Department of Health recognises the important role nurses have in the care of people undergoing ECT. Nurses provide support and reassurance to individuals and significant others as well as using their knowledge and technical skills to provide a high standard of care to people before, during and after the ECT procedure. A key feature of the nurse's role involves psychological support and ensuring the provision of appropriate and accurate information to the person and to the people they identify as providing support and care. This is especially important given the procedural nature of ECT administration. While the nurse must be technically competent, they must also demonstrate psychological mindedness and a preparedness to support people therapeutically.

In Victoria, ECT is provided in a number of settings within licensed services: in purpose-built ECT suites, in day procedure units and in operating theatre suites. Nurses provide treatment and care to people in all of these settings. The Victorian Chief Psychiatrist's *Electroconvulsive therapy manual: licensing, legal requirements and clinical guidelines* (Victorian Department of Health 2009) provides instruction to services to ensure the appropriate allocation of resources for ECT to be safely administered. This includes the ECT coordinator, who has a distinct clinical leadership role within the ECT program and must be in attendance when ECT is administered. Another distinct nursing role within the ECT program is a registered or enrolled nurse in attendance for people in the waiting area. The key functions of this role are to provide physical and psychological support to people and their significant others while waiting. A registered nurse is also required with appropriate skills and knowledge to support the anaesthetist within the suite. This nurse may be the ECT coordinator or an appropriately trained anaesthesia nurse. A registered nurse is also required to fully support the person as they recover from the procedure and anaesthetic. Nurses perform all of these functions and provide the consistency and psychological support that is a fundamental component of the nursing role.

This guideline has been developed in response to Victoria's ECT nurse coordinators, who requested policy guidance in relation to standards for nursing care provided to people who require ECT. It articulates best practice and is intended to provide mental health services with clarity regarding the role of nurses in providing treatment, care and support to people undergoing ECT.

All of the people involved in the development of this guideline are committed to the provision of optimal care to people who are prescribed ECT. This document is intended to be read in conjunction with the Victorian Chief Psychiatrist's *Electroconvulsive therapy manual* (Victorian Department of Health 2009) and should influence the development or revision of local policies and procedures.

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Key message

The purpose of this guideline is to provide clinical guidance and information about the nursing care of people undergoing ECT in public and private licensed premises in Victoria. Services should develop or revise local policies and procedures consistent with the *Electroconvulsive therapy manual* (Victorian Department of Health 2009) and this guideline to promote the provision of effective nursing care to people undergoing ECT.

Within the clinical teams that provide ECT nurses play a significant role in the treatment and care of people. Nurses manage ECT suites and provide care before, during and after treatment sessions. There are significant skill sets required that include but are not limited to psychological support, preparation of people prescribed and undergoing ECT and the provision of care for the unconscious patient.

An ECT coordinator is an essential part of the clinical team and is an experienced registered nurse responsible for managing the ECT program and the provision and coordination of nursing care. This is essential whether treatment is provided in a stand-alone ECT suite or in an integrated setting. In addition to the ECT coordinator, there are other nursing roles that may be fulfilled by registered or enrolled nurses, supporting and preparing people for treatment in the waiting area. ECT requires a general anaesthetic and all nurses in the recovery area are trained in resuscitation and cardiopulmonary resuscitation (CPR) procedures.

ECT treatment

ECT is recognised as an effective and potentially lifesaving procedure for several mental health conditions such as depressive disorders and psychoses including schizophrenia. The treatment is conducted under general anaesthesia with a muscle relaxant. A brief seizure is stimulated in the brain through the passage of an electrical current. For some people ECT is more effective in reducing the symptoms of their mental health conditions than other treatments (for example, antidepressant medications). The short-term relief from symptoms achieved through ECT can often be maintained through medication or continued with less frequent ECT treatments.

People with mental health conditions and their carers can sometimes be apprehensive about ECT. There are many myths associated with this treatment, and individuals and their carers commonly seek comfort and reassurance from nursing staff. This education and support function is a key role of nurses.

Role of nurses

Nurses have been involved in the administration of ECT since its earliest use. There has been minimal research on the role and responsibilities of nurses during treatment and no national or statewide nursing policy has previously been developed. The absence of such a policy has meant that variable practices between healthcare services have emerged¹ as services have sought to provide this treatment as an option for people.

The Australian Nursing and Midwifery Accreditation Council (ANMAC) identifies national competency standards for the registered nurse in Australia to ensure the safety of people receiving care from a nurse. These competencies provide guidance and protection for the public by describing the skills, knowledge and education necessary for nurses to ensure the physical and psychological wellbeing of people. The role of the nurse in ECT is to ensure people are cared for in a way that is consistent with these competencies.

¹ Refer to *Nursing care of patients undergoing electroconvulsive therapy: a review of literature and policy and a survey of current practice* (Victorian Department of Health 2011).

About the guideline

This guideline provides advice in relation to management of the ECT suite including the role of the ECT coordinator, the licensing of facilities and nursing practice. It is not intended as a stand-alone document but should be read in conjunction with other departmental guidelines including the *Electroconvulsive therapy manual* (Victorian Department of Health 2009), which places the relevance of these documents in the context of providing ECT services in Victoria.

The information provided in this guideline is intended as general information and not as legal advice. Mental health service managers should ensure that procedures are developed and implemented consistent with the purpose and intent of the guideline.

If mental health staff have queries about individual cases or their legal obligations, service providers should obtain independent legal advice.

Managing the suite

The ECT coordinator

In Victoria, the Chief Psychiatrist requires each licensed facility to appoint an experienced registered nurse as ECT coordinator (Victorian Department of Health 2009). Nurses appointed to this position must be senior clinical nurses who have completed approved courses in ECT and CPR.

ECT coordinators are responsible for the management of ECT suites and are accountable for having the relevant competencies described by the ANMAC standards. The following list of competencies has been adapted from the standards. ECT coordinators:

- identify, interpret, integrate and apply legislation and local policies to the coordination of nursing care in the ECT suite during treatment sessions
- develop, implement and evaluate nursing standards, policy, practice and procedures for ECT
- · maintain current knowledge, awareness and understanding of developments that relate to ECT
- identify, research and implement evidence-based quality improvement activities that relate to the nursing care of people undergoing ECT
- identify education and professional development needs in self and others in relation to all aspects of ECT treatment and care.

Additionally, the functions of the ECT coordinator are to:

- provide and coordinate nursing care in the ECT suite during treatment sessions
- · develop, implement and evaluate nursing standards, policy, practices and procedures for ECT
- coordinate and educate nursing staff
- · liaise with anaesthesia staff
- ensure that appropriate staffing, equipment and supplies are available
- establish regular checking, cleaning, sterilising and maintenance routines for the care of equipment
- ensure that the recording and reporting requirements for ECT are met
- · coordinate appropriate quality improvement activities
- maintain the CPR, emergency and recovery room training register (Victorian Department of Health 2009, p. 12)
- · ensure nurses meet and maintain appropriate standards for ECT
- prepare the ECT equipment for treatment
- liaise with psychiatrists and other staff
- schedule ECT sessions
- coordinate daily routines including the flow of individuals to and from inpatient wards or the community and through the ECT suite (including the recovery area)
- collect and collate relevant data.

Licensing ECT facilities

In Victoria, the *Mental Health Act 1986* regulates the licensing of ECT facilities,² and the Secretary of the Department of Health is responsible for licensing. In practice, the Chief Psychiatrist has been delegated these duties. Part of the process of licensing ECT facilities involves the Chief Psychiatrist, or their representative, making an inspection of the proposed site as described in the *Electroconvulsive therapy manual* (Victorian Department of Health 2009). Along with the director of ECT, the ECT coordinator must be present at this inspection. During the inspection the premises, resources and equipment, quality processes and clinical policies and procedures are reviewed. The outcome of this process will be the

² Victoria's Mental Health Act is currently under review. Anyone using this guideline should ensure that they are aware of and adhere to the most up-to-date Mental Health Act.

granting or refusal of a licence and imposing any conditions, limitations and restrictions on licenses. The maximum period of a licence is five years.

Resourcing and equipping facilities

The Victorian Chief Psychiatrist has outlined minimum standards for the resourcing and equipping of ECT suites in the *Electroconvulsive therapy manual* (Victorian Department of Health 2009). Where applicable, this document also makes reference to the guidelines and recommendations of the Australian and New Zealand College of Anaesthetists (ANZCA), Standards Australia and Standards New Zealand and the Victorian Department of Human Services (see Table 1).

Updating local policies and procedures

Updating local policies and procedures so that they remain consistent with best-practice guidelines requires that ECT coordinators are aware of the latest guidelines and are able to adapt local policies and procedures accordingly. Best-practice guidelines are available from multiple sources including government departments (for example, Victorian Department of Human Services 2004) and professional bodies (for example, ANZCA 2010 and The Royal Australian and New Zealand College of Psychiatrists [RANZCP] 2007).

| Area of focus | Guidelines and recommendations |
|----------------------|---|
| Design of ECT suites | Design guidelines for hospitals and day procedure centres (Victorian Department of Human Services 2004) Cleaning, disinfecting and sterilizing reusable medical and surgical instruments and equipment, and maintenance of associated environments in health care facilities (Standards Australia and Standards New Zealand 2003) Planning for emergencies – health care facilities (Standards Australia 2010) Recommendations on monitoring during anaesthesia (ANZCA 2008b) |
| Equipment | Cleaning, disinfecting and sterilizing reusable medical and surgical instruments and equipment, and maintenance of associated environments in health care facilities (Standards Australia and Standards New Zealand 2003) Recommendations on minimum facilities for safe administration of anaesthesia in operating suites and other anaesthetising locations (ANZCA 2008) Recommendations for the post-anaesthesia recovery room (ANZCA 2006a) Recommendations for the perioperative care of patients selected for day care surgery (ANZCA 2010) Recommendations on monitoring during anaesthesia (ANZCA 2008b) Guidelines on infection control in anaesthesia (ANZCA 2005) |
| ECT administration | Statement on credentialing and defining the scope of clinical practice in anaesthesia (ANZCA 2006b) |
| Nursing | National competency standards for the registered nurse (ANMAC 2006) Code of professional conduct for nurses in Australia (ANMAC 2008) The ICN code of ethics for nurses (ICN 2006) Code of ethics for nurses in Australia (ANMAC 2008) Current registration with the Australian Health Practitioner Regulation Agency |

Providing pre-treatment care

Pre-treatment nursing care should begin before ECT is prescribed and continue until people receiving care enter the ECT suite. Nurses who provide pre-treatment care must be competent in:

- identifying and applying legislation that relates to ECT and explaining the legislation to individuals and their carer or families
- effectively communicating and providing education and support that is appropriate to the needs of individuals and their carer or families with regard to their care and treatment. The following additional points should be considered
 - it is important for people to have accurate, concise information
 - nurses should assess a person's understanding and recognise that people may require this knowledge to be reiterated and explained in different ways.

A significant priority for nurses at this time is to provide educational and psychological support to people undergoing ECT and their carers and to prepare people for treatment. To inform their care, nurses must be competent in assessing an individual's current mental state, legal status, medical status and trauma history. In addition, nurses must also recognise and support people's needs in relation to gender and culturally sensitive practice and the impact of ECT on people and their families or support people.

Moreover, nurses should be aware of the indications for ECT given they are accountable for providing education and support to people undergoing ECT and for developing care plans, and are in a position to note changes in people's physical and mental state in the time between prescription of ECT and treatment. The RANZCP (2007) has stated that the indications for ECT include:

- major depression
 - especially with catatonic, melancholic or psychotic features, with or without suicidal risk or failure to drink or eat adequately
 - when the response to antidepressant medication has been inadequate
- mania
- schizophrenia with acute features.

In addition, the RANZCP suggests that ECT may also be useful in the treatment of other conditions such as Parkinson's disease and neuroleptic malignant syndrome.

ECT may be used for the same indications in adolescents as in adults. The effectiveness and side effects of ECT in adolescents are similar to those found in adults. The RANZCP (2007) reports that ECT is rarely administered to prepubescent children and makes no recommendations for the use of ECT with this population.³

Legal Status

It is a nurse's responsibility to be aware of a person's legal status and should refer to the guidance provided in the *Electroconvulsive therapy manual* in the section 'Clinical <u>practice guidelines'.</u>

Nursing assessment, interventions and evaluation of mood and mental state

A key component of nursing practice is the assessment of risk and the assessment of a person's mood and mental state. This is a dynamic process as nurses assess all the time to plan and provide appropriate interventions. It is important to determine through assessment and observation whether the

³ In September 2011 the Victorian Chief Psychiatrist's Quality Assurance Committee endorsed reporting to the Chief Psychiatrist prior to ECT being given to any person below the age of 18 years. The Chief Psychiatrist can request any further information that is deemed necessary. It was also endorsed that a second opinion should be a mandatory requirement prior to administering ECT to any person below the age of 18 years.

ECT treatment is effective and to document any desired effects and side effects. This occurs through documentation and verbal communication with the multidisciplinary team. The relationship a nurse has with the person receiving treatment is often unique and provides the person with an opportunity to identify any issues they may be having with treatment that they would otherwise not mention.

Medical status

To provide optimal care, nurses need to be aware of the medical conditions of people undergoing treatment. In Victoria, it is the primary responsibility of the prescribing psychiatrist to take an individual's medical history, undertake appropriate physical examinations and investigate physical illnesses that could compromise the treatment (Victorian Department of Health 2009). Nurses are accountable for reporting and recording alterations in a person's health status and questioning or clarifying interventions with relevant members of the healthcare team to ensure that an individual's medical needs are met (ANMAC 2006).

ECT is considered to be a safe procedure with no absolute contraindications. However, several preexisting conditions may predispose people to greater risk of possible complications and these conditions may need to be managed. The Appendix provides a list of pre-existing conditions that warrant consideration and may need attention during ECT, and includes recommendations on how these conditions may be managed. Before each treatment the likely impact of ECT on pre-existing conditions will need to be considered and plans for the management of such conditions developed accordingly.

Trauma histories

Many people who receive care within the mental health system have experienced trauma. It is important for nurses to be aware that some people may find the thought or administration of ECT to be further traumatising. Nurses can address a person's concerns and anxieties and where possible relieve anxieties through explanations and support. Carefully supporting a person through ECT can optimise therapeutic relationships and can contribute to recovery from existing mental health issues. Through practicing trauma-informed care, nurses have an opportunity to improve the treatment of people undergoing ECT. Trauma-informed care involves:

- being aware of people's trauma histories and incorporating the information into holistic and integrated treatment planning
- seeking and incorporating the person's views on how to appropriately manage their concerns and incorporate this into the treatment plan
- providing appropriate interventions that support the person
- using understanding of the roles of victimisation and violence in the lives of people seeking care to inform the design of service systems that accommodate individuals' vulnerabilities and facilitate their participation in treatment (Harris & Fallot 2001).

To ensure that trauma-informed care is provided with respect to ECT, nurses should:

- be aware of people's trauma histories and how re-traumatisation during ECT could be prevented
- · provide people with education and psychological support before, during and after treatment
- help people understand why a physical treatment has been prescribed for issues that they may view as being psychological
- · avoid storing or leaving ECT equipment in areas where people wait for treatment
- ensure all people having treatment do not hear or see ECT being administered to others, respectful of all persons' privacy
- · ask people how they are and explain all procedures and processes to them
- be transparent and open about the risks and side effects and encourage people to express their concerns
- provide accurate, empathic answers in response to peoples' concerns.

Family-inclusive practice

Family-inclusive practice recognises that mental illness affects not only individuals but also their families, and that family-sensitive and family-inclusive practices can benefit both people with mental health conditions and their families. Goals of family-inclusive practice include restoring and enhancing family functioning, providing carers and family members with opportunities to articulate their feelings and experiences, and increasing carers' and family members' understanding of mental health conditions and the ECT procedure. It is important to remember that family-inclusive practice applies to those people that the person receiving treatment identifies as being significant to them.

To ensure family-inclusive practice is provided with respect to ECT, nurses should:

- talk with the person's family about what is happening, the treatment and the procedure
- initiate a positive relationship with the family and invite their participation
- provide time for the family to explain how they experience caring for the person receiving treatment and provide support.

Gender-sensitive care

Gender-sensitive care is informed through an awareness of the different needs and experiences of women, men and people who identify as transgender and intersex and how these differences manifest in mental health settings. There are differences between genders in terms of the causation, prevalence, causes and treatment of mental health conditions. Underpinning these differences are a wide range of biological, psychological, social, cultural and economic factors. To ensure that gender-sensitive care is provided in ECT settings, nurses should refine their practices in accordance with the *Service guideline on gender sensitivity and safety* (Victorian Department of Health 2011). With reference to ECT, nurses should also be aware of the following issues:

- females have a lower initial seizure threshold than males
- females may experience greater cognitive side effects following ECT than males
- although the risks of adverse events with the use of ECT during pregnancy are low, clinicians need to be particularly attentive to maternal physiological monitoring (to facilitate adequate control of ECT-induced hypertension) and ensure that appropriate anaesthetic techniques are applied.

Culturally sensitive practice

Providing culturally sensitive care requires recognising people's shared attitudes, goals, practices and values and practicing in a manner that is consistent with them. The provision of culturally sensitive care is positively associated with higher levels of treatment adherence and health outcomes. To ensure that care is provided in a culturally sensitive manner, nursing practices should be consistent with those promoted in the *Cultural responsiveness framework: guidelines for Victorian health services* (Victorian Department of Health 2009) and the *Cultural diversity plan for Victoria's specialist mental health services* 2006–10 (Victorian Department of Health 2006). With respect to ECT, caring for people in a way that respects their culture means that additional time may be needed to explain the treatment and procedures. The information may need to be adapted, or the services of an accredited interpreter may be needed. To ensure that individuals' cultural needs are respected, nurses should:

- · discreetly enquire about their requirements and respond accordingly
- understand they may have to make adjustments to usual procedures to support a person's cultural beliefs
- ensure they are informed of particular needs associated with care and treatment as well as ensuring this occurs for the person and their family.

Aboriginal and Torres Strait Islander people

Aboriginal people understand mental health within a broader context of health and wellbeing, which includes concepts of social and emotional functioning. As such it is important that interactions and communication are culturally competent in order to ensure the person is supported before, during and after the procedure. When discussing the procedure with the person, the nurse should check their understanding of what is being said. Nurses should ensure open dialogue can occur by encouraging questions in a sensitive manner and being aware that not everyone is comfortable talking about certain topics. Discomfort may be exacerbated if family or friends are present, so ask the person if they would prefer to talk alone. Discussing whether the person field comfortable, respected and cared for, rather than worrying about the correct way to speak with an Aboriginal person (The Mental Health First Aid Training and Research Program 2008).

Providing information and psychological support

The provision of information and psychological support usually marks the beginning of nursing care for people undergoing ECT. In Victoria, it is a legal requirement of the prescribing psychiatrist to provide people with sufficient information about ECT to enable their informed consent. This includes giving people a copy of the booklet *Electroconvulsive therapy: about your rights*, which is available at <<www.health.vic.gov.au/mentalhealth/patientrights> and has been translated into several languages. Nurses are commonly asked further questions and are called upon to provide psychological support to people receiving treatment and to their carers. Because many people may be too ill to become familiar with the booklet on their own, nurses should be available to explain its contents to them.

People undergoing treatment and their carers sometimes have concerns about ECT (for example, fear of pain, electrocution or memory loss) and look to nursing staff for explanations and reassurance. Common fears and information to assist in addressing these feelings are outlined in Table 2. Nurses should provide ample opportunity for these concerns and fears to be expressed and for misconceptions to be addressed. Asking open-ended questions about previous exposure to ECT (for example, discussions with friends, reading about it, from movies) can be useful in identifying and addressing misconceptions. Nurses should be prepared to answer the questions of people undergoing ECT and carers as they arise during the course of treatment. Consumer and carer consultants may also provide educational and advocacy support to individuals and their carers.

When ECT is prescribed under the Mental Health Act without the person's consent, additional support may be needed throughout the procedure. People receiving care without their consent may look to nurses for empathy and explanations for why the ECT has been prescribed against their will. Along with other staff, nurses have a responsibility to support people through this process.

Table 2: Common concerns and fears about ECT

| Concern or fear | Information for addressing these fears |
|---|---|
| ECT is painful. | ECT is performed under a general anaesthetic, which means the person is anaesthetised when the treatment is administered. Some muscular discomfort may occur after treatment. |
| ECT may result in electrocution. | A mild electrical current is used in ECT, which is not strong enough to cause electrocution. |
| ECT causes memory loss. | Cognitive side effects can occur with ECT including disorientation and impairments in learning, anterograde memory and retrograde memory. After a single session of ECT, these side effects may resolve rapidly. Over the course of several sessions, some accumulation of side effects may occur in some people. Treatment aims to minimise these side effects while maximising treatment outcomes. |
| ECT causes brain damage. | There is no scientific evidence that ECT causes brain damage. |
| ECT changes an individual's personality. | There is no scientific evidence that ECT causes changes in personality. |
| People will not be informed of what is happening. | Nurses have a responsibility to keep people informed about their treatment as described in this guideline. |
| ECT may result in death. | ECT is a very safe procedure, with an extremely low mortality rate. |

Note: The information in Table 2 was sourced from Finch (2005), the RANZCP (2007), Zachrisson et al. (2000) and Dowman et al. (2005).

Preparing people for treatment

Nurses are involved in preparing people for treatment on the day during which ECT is to occur and are responsible for:

- developing a care plan based on organisational policies, the individual's needs and current nursing knowledge
- performing procedures that are consistent with the predetermined care plan.

Suggested nursing tasks during this period are detailed in Table 3. To ensure these tasks are completed, consideration should be given to developing checklists within services (ANMAC 2006).

Table 3: Nursing considerations in the preparation of individuals and suites for ECT

| Action | Rationale |
|--|---|
| Ensure that the person is adequately hydrated the day before treatment. | To reduce the possibility that dehydration occurs when the person fasts |
| Arrange for safekeeping of the person's valuable items. | To ensure the person's valuables are looked after and there is a documented record of this |
| Explain the procedure, including side effects, to the person using educational pamphlets and videos as appropriate and answer questions that they may have. | To reassure the person about the treatment using a number of methods to support their understanding of ECT and the care associated with its administration |
| If others wish to be present to observe ECT, request permission from the person. | To ensure the person is comfortable with who will be present in the ECT suite and why they will be there. ECT is directly relevant to medical and nursing students. If other disciplines are to be present this should only occur with consent and if it is purposeful (for example, if the person is a case manager and not from a medical or nursing background). |
| Have the person fast (food and fluids) for six to eight hours and abstain from smoking for two hours prior to the procedure or in accordance with local policy or as | To prevent excessive bronchial secretions and possible aspiration during general anaesthesia |

| otherwise advised by the anaesthetist. | |
|---|---|
| Ensure pre-testing occurs prior to ECT by administering a simple cognitive test. | To enable comparisons to be made between pre- and post-ECT results so that any changes to cognition as a result of ECT can be identified and considered |
| Ensure medications are given as prescribed. Determine what medications must be taken at their regular time and what medications may be delayed until after ECT. Administer accordingly. | To ensure medications (for example, cardiac medications) are administered on time if there is a need to do so and to delay other medication until after ECT following consultation with the anaesthetist |
| Ensure the person is not wearing make-up, nail varnish or body piercings. Assist in removing them if they have not done so. | To ensure they do not interfere with or impact on the treatment site or prevent the observation of hands and feet following the administration of anaesthetic |
| Ensure the person's hair is clean and dry and hairpins, hairnets and other hair ornaments are removed. | To ensure appropriate electrode contact is not prohibited |
| Encourage the person to empty their bladder before treatment. | To reduce any discomfort, bladder distension and complications that may arise due to a full bladder |
| Have the person remove any prostheses, loose-fitting dentures, glasses, hearing aids and contact lenses immediately prior to the administration of the anaesthetic. | To assist the person in their mobility and communication, it is beneficial for people to use their sight and hearing aids for as long as possible before treatment. Their removal is required so they won't interfere with treatment |
| Check the person's identity in multiple ways and ensure that an identity band is being worn by the right person. | To ensure the right treatment is administered to the right person |
| When the person is an outpatient, ensure that they have agreed to not drive and will have a responsible adult care for them during the first 24 hours after treatment. Also, book further ECT appointments. | To ensure that the person will be safe and cared for after treatment |
| Have a nurse who the individual knows and who is aware of their legal and consent status escort the person to the treatment waiting room. | To minimise and address any anxiety that the person may be experiencing |
| Perform the pre-treatment checklist for general anaesthesia and ECT. | To ensure the person is ready for general anaesthesia and ECT |
| Have outpatients who may have travelled long distances treated at the beginning of the day. | To allow maximum recovery time |
| The ECT coordinator has a role to monitor and mentor other nurses. | To ensure quality of care and contribute to staff development |
| Ensure adequate handovers occur. | To support the continuity of care |
| Provide support as required to the psychiatrist and anaesthetist. | To facilitate individual care to the person receiving ECT |
| Ensure documentation is completed. | To support the continuity of care |
| Prepare equipment and consumables needed for treatment. This includes ensuring local policies and procedures are developed in relation to the set-up and cleaning of the ECT suite and equipment with regards to the disinfection and autoclaving of equipment. | To ready the ECT suite for the administration of treatment |
| Record physical observations. | To facilitate monitoring of the individual's progress |

Note: The information in Table 3 was sourced from Finch (2005), Kavanagh & McLoughlin (2009), the RANZCP (2007) and the policy and procedure documents of Victorian healthcare services that provide ECT.

Providing care during treatment sessions

Nurses have an important role in the provision of care during treatment sessions. Nurses are responsible for:

- · facilitating an environment that ensures the safe treatment of ECT
- collaborating in decision making about the person's care with members of the multidisciplinary team (ANMAC 2006).

The functions nurses perform may depend on what other staff are present in the treatment room and may differ among ECT suites. Tasks that need to be completed during treatment sessions are detailed in Table 4 and the nurse is responsible for the appropriate procedure being correctly followed.

Table 4: Procedures that occur during the ECT treatment session

| Procedure | Rationale |
|--|--|
| Welcome the person to the suite and introduce the person to staff in the treatment room. Explain the roles of the different staff. | To enable the person to become familiar with the staff responsible for their care |
| Ensure the person is not wearing footwear – assist them to remove their footwear if necessary. | To allow observation of the person's extremities during the procedure |
| Maintain a person's dignity and cover them with a sheet. If they are cold provide a blanket. | To keep the person warm |
| Provide the person with explanations and offer support. | To assist the person to manage any anxiety or concern |
| Confirm the person's legal status, informed consent and relevant documentation. | To ensure adherence to relevant laws, policies, guidelines and procedures |
| Explain every procedure as it occurs. | To inform the person about what is happening |
| Participate in a 'time-out' procedure. | To check that the right procedure is being given to the right person |
| Assist with the introduction of an intravenous line into the person's arm or hand if required (often the anaesthetic nurse or technician will assist with this). | To allow the administration of intravenous medications |
| Clean sites of electrode contact with alcohol swabs, gel or saline. | To ensure the cleanliness of the electrode and to ensure best contact of electrodes with the person's head |
| Place leads for various monitors. | To enable monitoring of the person, for example, electrocardiogram (ECG), pulse oximeter, blood pressure |
| Place electrodes on the person's head. | To facilitate electroencephalographic monitoring |
| Assist with anaesthesia, including monitoring blood pressure, electrocardiographic activity, expired carbon dioxide levels and pulse oximetry. | To ensure the persons condition is stable and to alert other staff if this situation should change |
| Administer oxygen to the person. | To prevent hypoventilation during administration of the anaesthetic |
| Assist psychiatrist, anaesthetist and other nurses as required. | To facilitate person-centred care |
| Insert a disposable or bite block (autoclaved) into the person's mouth. | To prevent joint dislocation and tooth, tongue and gum damage |
| Press the test/treat button on the ECT machine in consultation with the psychiatrist. | To complete testing of electrodes and initiate treatment |
| Time the duration of seizures and the time between | To support the decision-making process |

| seizures and communicate this information, along with the titration, to the psychiatrist. | |
|---|---|
| Turn the person using a slide sheet with assistance from other staff. | To place the person in the recovery position |
| Ensure documentation is completed. | To support the continuity of care |
| Transfer the person to recovery room once they are breathing again and able to maintain own airway. | To monitor and support the person to recover from the anaesthetic |

Note: The information in Table 4 was sourced from Finch (2005), Kavanagh & McLoughlin (2009), the RANZCP (2007) and the policy and procedure documents of Victorian healthcare services that provide ECT. ^aFor more information about the time-out procedure, please refer to the World Health Organization (2008) *Surgical safety checklist*. An Australian and New Zealand version of this checklist has been developed and has received endorsements from the ANZCA, the Australian College of Operating Room Nurses (ACORN) and other medical organisations. The checklist is available at <www.anzca.edu.au/resources/endorsed-guidelines>.

Caring for the unconscious person

Because ECT is provided under general anaesthesia, nurses are required to be competent in caring for the unconscious person. The ANZCA (2008c) recommends that the presence of a trained assistant for the anaesthetist is essential for the safe and efficient conduct of anaesthesia:

- during preparation for and induction of anaesthesia. The assistant must remain under the immediate direction of the anaesthetist until instructed that this level of assistance is no longer required
- at short notice if required during the maintenance of anaesthesia
- at the conclusion of anaesthesia (p. 1).

Information about caring for the unconscious person can also be found in the information on the role of the anaesthetic nurse as described in the ACORN standards (2010).

Nurses who provide ECT either in an operating theatre or in a stand-alone unit are registered, have appropriate qualifications and experience and are competent in the following aspects of anaesthesia and recovery:

- assessment
- setting up the procedure
- checking the anaesthetic machine
- induction of anaesthetic
- treatment
- post-anaesthesia recovery
- recognition of clinical complexity
- airway management
- anaesthetic drugs
- recognising the deteriorating patient
- anaesthesia emergencies
- monitoring and advanced life support.⁴

⁴ Educational standards provided by the Victorian ECT Nurse Coordinators Reference Group

Providing post-treatment care

There should be a continuous nursing presence during the recovery period, with the individual being observed until they are fully oriented. It is recommended that the person remain under observation for a minimum of two to four hours after ECT (Victorian Department of Health 2009). Nurses should follow local policy associated with discharge times.

To facilitate the recovery of a person who has undergone ECT treatment, nurses must be competent in:

- monitoring the response of individuals to ECT and adjusting care accordingly
- · using appropriate assessment tools and strategies to collect and incorporate data into care plans
- · planning and maintaining appropriate documentation for continuity of care
- identifying deviations from typical response to ECT (ANMAC 2006).

Nursing functions during an individual's recovery are detailed in Table 5.

Table 5: Possible nursing functions during the recovery period

| Action | Rationale |
|--|--|
| Nurse the person in left lateral or supine position and ensure a clear airway is maintained. | To ensure that the person's airway is patent and not compromised |
| Be present with the person at all times and monitor consciousness. | To ensure there is no adverse reaction to anaesthetic and that the person does not come to any harm as they recover from anaesthetic |
| Administer oxygen to the person. | To maintain oxygen saturation and prevent hypoventilation while recovering from the anaesthetic |
| Monitor and record vital signs regularly (including oxygen saturation). | To identify and respond to complications |
| Maintain intravenous line/access. | Intravenous access is maintained in case rapid medication administration is requested |
| Complete post-operative side effects checklist at regular intervals. | To identify and record any common or concerning side effects |
| Provide reassurance and orientation until the person begins to retain information. | To assist the person to become oriented to the ward setting |
| Administer a simple cognitive test. | To enable comparisons to be made between pre- and post-ECT results so that any cognitive abnormality as a result of ECT can be identified |
| Maintain the person's safety, administering prescribed medication for agitation if required. | To assist the person if they become agitated, aggressive, restless, or disoriented for a short period of time |
| Ensure that a bay in the recovery room is available and prepared for the person. | To enable the person to be sent to the recovery area |
| Ensure the person does not leave the recovery area until they are alert. | To prevent falls or injury due to level of alertness |
| Ensure that information about any medication administered and procedures used, as well as the person's condition, treatment response and behaviour is recorded in the ECT notes and transferred to the ward nurse. | To facilitate the continuity of care |
| If a person requires non-standard procedures or actions, ensure they are included in the ECT documentation that | To ensure that other medical and nursing staff are aware of a person's particular requirements or issues in the |

| | - |
|--|---|
| is transferred to the ward nurse. | rare event that they arise |
| If the person is a current inpatient, individual assessment will take place upon their return to the ward regarding the level of physical observation needed and the extent to which they are oriented to the ward. | To ensure adequate post-anaesthesia care is provided |
| Administer medications such as analgesia and anti- emetic as prescribed. | To respond to the person if they identify they are in pain or have a headache, muscle soreness or nausea |
| Continue to remind the person about the treatment and orient them to the environment. | To manage distress due to post-treatment amnesia |
| Encourage the person to rest. | To facilitate recovery from treatment |
| Receive handover from treatment room staff. | To facilitate the continuity of care |
| Keep the person warm. | To help the person feel comfortable |
| Report any problems to the ECT coordinator, psychiatrist or anaesthetist. | To enable potential complications to be managed |
| Check the person for the presence or absence of nausea or vomiting. | To monitor recovery before a light meal is consumed |
| Supervise a light meal (such as breakfast) and consumption of liquids. | To provide the person with sustenance and hydration |
| Inform the nurse in charge of stock needing to be reordered. | To ensure the ECT does not run out of consumables |
| Assist the person to dress in their own clothes. | To ready the person for leaving the recovery room and assess whether they are ready to leave |
| Prior to the person leaving (when their condition is satisfactory) remove the cannula, apply firm pressure and apply a sterile covering. | To prevent bleeding |
| Continue to complete documentation. | To facilitate the continuity of care |
| Book or confirm further ECT appointments (if required). | To ensure future ECT appointments have been made and the person and their carers know when they are scheduled |
| Facilitate transfer or discharge arrangements. | To organise the person's departure from the recovery room |
| Wipe down used mattresses and pillows, remake trolleys, clean and maintain ECT suite and recovery room and replace consumables. | To maintain the ECT suite and ensure it is ready for the next individual |

Note: The information in Table 5 was sourced from Finch (2005), Kavanagh & McLoughlin (2009), the RANZCP (2007) and the policy and procedure documents of Victorian healthcare services that provide ECT.

Providing care to outpatients

The director of ECT, specialist anaesthetist or ECT coordinator will make the decision about when the person is able to leave the ECT suite (Victorian Department of Health 2009).

In addition to the functions identified in Table 5, the registered nurse will conduct an assessment to ensure that the person is safe to return home. They will communicate this assessment to assist in the decision making about when a person can leave. This assessment is broken down in Table 6.

A range of scales and guides may be used to assess safety for discharge after ECT treatment.

Table 6: Possible nursing functions during the recovery period of an outpatient

| Functions | Rationale |
|---|--|
| Assess the person's ambulation and gait. | To ensure the person does not have mobility issues |
| Undertake a mental status examination. | To ensure the person's capacity to function |
| Undertake a risk assessment. | To ensure the person is well enough to return home |
| Ensure the person has a responsible adult to escort them to and from the ECT suite and to remain with them for 24 hours or until full recovery. | To ensure the person's safety and recovery after treatment |
| Ensure a transport plan is in place. | To ensure the safe transportation of the person after treatment |
| Ensure the person and accompanying person has access to a telephone at home and that a service contact name and number are provided. | To ensure the person is able to contact the mental health service in the event that any problems arise |

Note: The information in Table 6 was sourced from the Victorian ECT Nurse Coordinators Reference Group and the *Electroconvulsive therapy manual* (Victorian Department of Health 2009).⁵

Conclusion

The nursing care of people prescribed and receiving ECT is an essential component of this prescribed practice. It is imperative that nurses working in these roles are knowledgeable and effectively manage care before, during and after ECT as described in this guideline and in the *Electroconvulsive therapy manual*. This will contribute to the wellbeing of the person receiving ECT, which is of primary concern to nurses.

⁵ Additional information for patients receiving ECT as outpatients is provided in Appendix 4 of the *Electroconvulsive therapy manual* (Victorian Department of Health 2009)

Appendix: Recommendations regarding ECT and specific health conditions

Table 7: Recommendations regarding ECT and specific health conditions

| Condition | Recommendations | Rationale |
|--|---|---|
| Hypertension | Before ECT, stabilise the blood pressure of people with pre-existing hypertension.^b For stable chronic hypertension with blood pressure ≤140/90 mm Hg: administer usual antihypertensive medication throughout the morning of procedure.^a For chronic or new-onset hypertension with blood pressure >140/90 mm Hg: antihypertensive medications should be started in accordance with JNC-7 guidelines (Chobanian et al. 2003) delay ECT until blood pressure is <140/90 mm Hg avoid administering beta- | After shock, systolic pressure rises between 29% and 48% and diastolic pressure rises between 24% and 63% (Rumi et al. 2002; Takada et al. 2005). Some beta-blockers (for example, esmolol) may shorten the duration of seizures and reduce the efficacy of ECT (van den Broek et al. 2008). |
| Recent myocardial infarction | Take extreme caution when performing ECT within the first 10 days following myocardial infarction. The risk generally decreases during the three months following the myocardial infarction. ^b | There is no reliable evidence for when it is safe for ECT to proceed after myocardial infarction (RANZCP 2007). |
| Asymptomatic or stable coronary artery disease | Continue the following medications: aspirin, statins, antihypertensive agents and antianginal medications including nitrates for chronic cardiac conditions. ^a For people with coronary stents, continue aspirin and clopidogrel. ^a | The risk of cardiac ischemia is increased if long-term cardiac medications are discontinued on the morning of the procedure (Tess & Smetana 2009). |
| Aortic stenosis | Perform echocardiography to assess the severity of the aortic stenosis in either of the following circumstances: echocardiography has not been performed within the past year symptoms have changed.^a If the aortic stenosis is moderate or severe, consult cardiologist and reassess the appropriateness of ECT. | Limited evidence suggests that ECT may be safe for people with aortic stenosis (Mueller et al. 2007; O'Reardon et al. 2008; Rasmussen 1997). In one study of 10 individuals with aortic stenosis undergoing ECT, hypertensive systolic blood pressure and tachycardia as a result of ECT required treatment in seven individuals during approximately half of the ECT sessions (Mueller et al. 2007). Low blood pressure needed to be treated in two individuals. |

| Condition | Recommendations | Rationale |
|---|---|--|
| Cardiac pacemakers | Before and after ECT, have a pacemaker technician check that the pacemaker is functioning normally. ^{a,b} Place a magnet at the individual's bedside in case electrical interference leads to pacemaker inhibition and bradycardia. ^a Properly ground all monitoring equipment and ensure that anyone in electrical contact with the ground does not touch or hold individual during the stimulus. ^b People should be treated in settings with immediate access to coronary care. ^b | Evidence suggests that ECT can be safely administered to people with implanted cardiac pacemakers (Dolenc et al. 2004; MacPherson et al. 2006). Of the 26 individuals in one study, only one serious cardiac event occurred (supraventricular tachycardia), which required the individual to be admitted to the cardiac unit (Dolenc et al. 2004). |
| Implantable cardioverter-defibrillator (ICD) | During ECT, ensure detection mode on the ICD is turned off. ^a Perform ECG monitoring continuously throughout treatment and pay careful attention to grounding. ^a Ensure resuscitative equipment is available at the individual's bedside in case external defibrillation is needed. | Limited evidence suggests that ECT can be safely administered to people with an ICD (Davis et al. 2009; Dolenc et al. 2004) |
| Arrhythmia | For atrial fibrillation: continue to administer individual medications for controlling heart rate if needed, control heart rate with calcium channel blockers manage anticoagulation (see below).^a For bradyarrhythmias: consider the use of an anticholinergic agent (for example, atropine) during pretreatment.^b | Although little published evidence exists, it appears that people with atrial fibrillation can be safely treated with ECT (Venditti et al. 1992). During ECT, there may be conversion to and from sinus rhythm (Tess & Smetana 2009). It is unknown what the effect of spontaneous rate conversion on embolisation rates may be. People with pre-existing bradycardia are at risk of a clinically relevant bradycardia or asystole due to the slowing of the heart rate immediately prior to the application of electrical stimulus (RANZCP 2007). The risk may be increased with stimuli that do not produce seizures (for example, during a dose titration procedure). |
| Need for long-term anticoagulation | Unless there is an increased risk of intracranial hemorrhage (such as an intracranial mass or aneurysm), administer anticoagulant therapy to maintain an international normalised ratio ≤3.5. | Limited evidence suggests that ECT can be safely performed with people receiving long-term anticoagulant therapy (Bleich et al. 2000; Mehta et al. 2004). |

| Condition | Recommendations | Rationale |
|--|--|---|
| Asthma or chronic obstructive pulmonary disease | Cease the use of theophylline by tapering the dose if possible. ^a Continue pre-existing individual | Theophylline increases the risk of prolonged seizures and status epilepticus in people undergoing ECT (Rasmussen & Zorumski 1993; Schak et al. 2008). |
| | If an exacerbation is present when people are evaluated, provide standard treatment (that is, inhaled beta-agonists and, if necessary, corticosteroids) before undertaking ECT. ^a | Limited research shows that ECT is safe for people with asthma (Mueller et al. 2006). One study showed that asthma was exacerbated in 12% of individuals, but these exacerbations were all treated with standard asthma medication (Mueller et al. 2006). |
| Intracranial pathology | Evaluate the risks of ECT on an individual basis. ECT is contraindicated when intracranial pressure is raised. Show caution when people have had a recent brain injury, infection, haemorrhage, or stroke. Show caution when people have organic brain lesions or cognitive pre-existing impairment. ^b | The RANZCP (2007) cites longstanding evidence suggesting that raised intracranial pressure is a contraindication to ECT. More recent research suggests that intracranial pressure may be able to be managed during ECT (Patkar et al. 2000). |
| Aneurysms | Avoid treatment-induced hypertension when people have vascular aneurysms such as intracranial and abdominal aneurysms. ^b Before administering ECT in the presence of vascular aneurysm, ensure the appropriate surgeon/ neurosurgeon/neurologist performs a thorough evaluation of the individual. ^b | Systematic arterial hypertension may increase the risk of developing aneurysms (Inci & Spetzler 2000). |
| Diabetes | Monitor blood glucose levels prior to and following ECT. ^a On the morning of the procedure, provide half the usual amount of long-acting insulin. ^a Withhold oral agents until people are able to eat. ^a Treat elevations in blood glucose level with short-acting insulin. ^a | The influence of ECT on blood glucose levels can be highly variable due to the effect of the procedure on appetite, diet and energy levels (Tess & Smetana 2009). Limited evidence suggests that ECT is safe for people with diabetes (Netzel et al. 2002; Rasmussen et al. 2006). One study showed a 9% mean rise in blood glucose following ECT, which is similar to increases in non-diabetic people (Rasmussen et al. 2006). No clinically significant rise |
| | It possible, schedule and perform ECT early in the morning. ^a | for any individual in this study. |

| Condition | Recommendations | Rationale |
|--------------------|---|---|
| Epilepsy | Perform electroencephalographic monitoring. ^b | Evidence suggests that ECT can be safely administered to people with epilepsy (Lunde et al. 2006). |
| | Reduce individual's dose of anticonvulsant medication so that possible loss of seizure quality and efficacy is mitigated. ^b | |
| Osteoporosis | Give muscle relaxants in adequate doses and allow time for them to take full effect before administering ECT. Confirm full muscle relaxation has occurred using an electronic device or by testing the patellar reflex. ^b | If ECT is unmodified or poorly modified, people with osteoporosis are at risk of fracture (RANZCP 2007). |
| | Avoid holding a individual down. ^b | |
| Retinal detachment | For people who may be susceptible to retinal detachment, consult an ophthalmologist before administering ECT and adequately control blood pressure during ECT. ^b | ECT stimulates increases in intraocular pressure, which may cause retinal detachment in those who are susceptible (RANZCP 2007). |
| Pregnancy | Include an obstetrician and an anaesthesiologist in the informed- consent and risk-stratification process. ^a For women who are more than 14 to 16 weeks pregnant, use non-invasive fetal monitoring as well as standard monitoring ^a | Although some authors claim ECT is a low-risk procedure for pregnant women that may have some advantages over pharmacotherapy (Saatcioglu & Tomruk 2011), other writers suggest it should be used with caution for pregnant women (Pinette et al. 2007). |
| | For women who are more than 24 weeks pregnant, perform a non- stress test with a tocometer before and after treatment. ^a | |
| Skull defect | Place electrodes away from metal plates and/or skull defects. ^b | Excessive current density at the site of the plate or defect should be avoided (RANZCP 2007). |

Note: The recommendations in Table 7 were sourced from ^aTess & Smetana (2009) and ^bRANZCP (2007).

Negative perceptions about ECT treatment stem from the unsophisticated ways in which it was first performed and the way it has been represented in the popular press, literature and movies. Modern ECT procedures, however, differ markedly from how the treatment used to be administered. Unlike in earlier times, ECT is administered in an ECT suite, surgical theatre or day procedure suite with no other patients present, under general anaesthesia and with a muscle relaxant administered. The intent is to maximise treatment outcomes while minimising side effects. People who receive treatment should not be concerned with electrocution; the electrical current used in ECT is mild. As with many treatments, side effects may occur and in the case of ECT may include impact on short-term memory. Many of the side effects associated with ECT, however, will resolve themselves in a short period following treatment.

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