Electroconvulsive treatment

Chief Psychiatrist's guideline

OFFICIAL

VICTORIA State Government | Department of Health

Electroconvulsive treatment

Chief Psychiatrist's guideline

To receive this document in another format, phone insert phone number, using the National Relay Service 13 36 77 if required, or email the Office of the Chief Psychiatrist at <ocp@health.vic.gov.au>

Authorised and published by the Victorian Government, 1 Treasury Place, Melbourne.

In this document, 'Aboriginal' refers to both Aboriginal and Torres Strait Islander people.

ISBN/ISSN 978-1-76131-156-7 (online/PDF/Word)

Available at Electroconvulsive treatment at < https://www.health.vic.gov.au/chief-psychiatrist/electroconvulsive-treatment-guideline-mental-health-and-wellbeing-act-2022>

Contents

Foreword

This electroconvulsive treatment (ECT) guideline is an update to the 2019 guideline. It details best practice standards for:

- pre-treatment assessment
- supporting people, including young people, families, carers and supporters, before, during and after treatment
- interactions with the Mental Health Tribunal
- service governance requirements
- quality safeguards.

The guideline includes advice for Victorian clinical mental health service providers on stimulus dosing and the role of alternative treatments including ultra-brief pulse ECT to help promote uniform approaches across the state.

By intention, the guideline does not offer technical information about ECT's mode of action, delivery and monitoring. This is covered in the training courses that psychiatrists and senior nurses must complete if they regularly take part in ECT practice.

This 2023 revision integrates:

- principles from the *Medical Treatment Planning and Decisions Act 2016 (*MTDP Act*)*
- recommendations from the Royal Commission into Victoria's Mental Health System
- requirements from the Mental Health and Wellbeing Act 2022 (the Act)

Clinical mental health service providers should use this guideline, together with contemporary legislation, to inform local policy and practice.

Principles in this guideline include that:

- consideration of less restrictive is required
- advance statements of preferences are checked for people's preferences for ECT
- capacity to make decisions about ECT must be assessed and documented, regardless of legal capacity, and reviewed periodically as treatment progresses
- applications to the Mental Health Tribunal for urgent ECT hearings are kept to a minimum
- people are helped to feel less anxious while in the ECT waiting area
- rostered psychiatrists administer at least 25 treatments each year
- anaesthetic nurses support anaesthetists in all treatment settings
- all treatments are reviewed weekly by the ECT director, ECT coordinator and participating psychiatrists
- outcomes are mapped using formal cognitive and clinical outcome tools
- ECT machines are equipped to deliver ultra-brief pulse stimulation.

I would like to thank the members of the Chief Psychiatrists' ECT committee, ECT directors and coordinators, senior clinicians, consumer and carer representatives and supporters who contributed their time and expertise to developing this work. I am confident that this guideline will continue to serve as a valuable resource for clinicians and managers to guide local practice, ensuring ECT is delivered effectively and safely across the state.

Dr Neil Coventry
Chief Psychiatrist

Introduction

ECT is a medical treatment conducted under general anaesthesia. It involves inducing a generalised seizure to treat certain mental health conditions. It should only be administered for an illness where there is evidence of effectiveness and an appropriate clinical indication.

ECT should be considered a therapeutic option, alongside other treatments, after a psychiatrist conducts a detailed risk–benefit assessment in consultation with the consumer and their family/carer/supporter. It is most commonly prescribed for severe depression but is also used to treat mania, schizophrenia and catatonia. ECT is sometimes used to treat other conditions such as neuroleptic malignant syndrome. Other indications are included in the Royal Australian and New Zealand College of Psychiatrists (RANZCP) ECT guidelines available at <https://www.ranzcp.org/clinical-guidelines-publications/clinical-guidelines-publications-library/electroconvulsive-therapy-professional-practice-guideline>

Representations of ECT in popular culture have created a negative public impression. These representations ignore evidence-based advances in technology that can tailor treatments to individual requirements. This improves effectiveness while minimising side effects. These advances have led to ECT becoming the treatment of choice in certain situations rather than a treatment of last resort.

Government regulation has played a major role in improving practice standards. Part 3.5 of the Act has provisions for regulating ECT for adults and young people. The Act details the processes to be followed, in the least restrictive way, whether there is capacity to consent. The Act defines the elements of informed consent and prescribes the requirements for when ECT can take place without informed consent. The Mental Health Tribunal, a regulatory authority independent of mental health service providers, oversees these provisions.

Legislation, guidelines, new technology and advances in clinical knowledge all combine to promote best practice standards so ECT is used appropriately, effectively and safely, respecting consumers' rights.

Purpose

The purpose of this guideline is to:

- provide guidance about the prescription and performance of ECT to Victorian clinical mental health service providers
- summarise issues relating to human rights, consent to ECT and the role of the Mental Health Tribunal
- highlight the importance of working collaboratively and respectfully with consumers, carers, families and supporters
- collate information about the standards set by national agencies and medical colleges for the physical facilities, staffing levels and equipment needed to deliver ECT safely
- describe the educational, quality improvement, reporting activities and governance arrangements for enhancing treatment standards.

Scope

The Act sets high standards concerning consumers' rights to information. It describes the steps that services must take to:

- respect the consumer's preferences
- provide treatment, care and support in the least restrictive way.

The family, carer or supporter of the consumer should also receive comprehensive information about the ECT consumer's treatment.

Services must recognise and value the lived experience of a person with mental illness or psychological distress and their carers, families and supporters. This experience makes them important leaders and active partners in the mental health and wellbeing service system.

The Act requires psychiatrists to consider a range of factors when applying to the Mental Health Tribunal for authority to perform a course of ECT without the consumer's written consent. This includes (but is not limited to):

- being satisfied that there is no less restrictive way to treat the consumer
- the consumer's views and preferences regarding ECT
- whether there is any reasonably available beneficial alternative treatment
- whether ECT is likely to remedy or lessen the symptoms of mental illness before prescribing
- the likely consequences for the person if ECT is not administered.

These guidelines consider the requirements of the Act for providing ECT in relation to both those patients who are receiving compulsory treatment and voluntary ECT.

Legal definitions

Advance care directive

A document that sets out a person's binding instructions or preferences and values in relation to the medical treatment of that person in the event they do not have decision-making capacity for the medical treatment (s 12(1) of the *Medical Treatment Planning and Decisions Act 2016*). An advance care directive has no effect while a person is a patient under the Act (as per s 48(1) of the *Medical Treatment Planning and Decisions Act 2016)*.

Advance statement of preferences

A document that sets out a person's preferences in relation to their treatment, care and support if the person becomes a patient under the Act (s 57 of the Act).

Authorised psychiatrist

A psychiatrist appointed by a designated mental health service under s 328 of the Act to carry out the functions and exercise the powers conferred on an authorised psychiatrist under the Act or any other Act and support the chief psychiatrist to perform the chief psychiatrist's functions under the Act. An authorised psychiatrist can delegate a function or power to certain individuals under s 329 of the Act.

A course of electroconvulsive treatment (under the Act)

Treatment specified by the Mental Health Tribunal in an order under Part 3.5 of the Act that is up to 12 electroconvulsive treatments and performed within a period that does not exceed 6 months (s 95 of the Act).

Carer

A person, including a person under the age of 18 years, who provides care to another person with whom they are in a care relationship (per s 3 of the *Carers Recognition Act 2012*), but does not include a parent if the person to whom care is provided is under the age of 16 years (per s3(1) of the Act).

Consumer

A person who has or is receiving mental health and wellbeing services or was assessed by an authorised psychiatrist and is not receiving treatment or sought or is seeking mental health and wellbeing services and was not or is not provided with those services.

Designated mental health service

A prescribed public hospital, prescribed public health service, prescribed denominational hospital, prescribed privately-operated hospital, prescribed private hospital that is registered as a health service establishment under the Act, the Victorian Institute of Forensic Mental Health, a service temporarily declared to be a designated mental health service or a declared operator (per s3(1) of the Act).

Electroconvulsive treatment

The application of electric current to specific areas of a person's head to produce generalised seizure.

Instructional directive

An express statement in an advance care directive of a person's medical treatment decision. It takes effect as if the person who gave it has consented to, or refused the commencement or continuation of, medical treatment, as the case may be (s 6(1) of the *Medical Treatment Planning and Decisions Act 2016*).

Medical treatment decision-maker

Where the person is not a 'patient', a medical treatment decision-maker is:

(1) Someone appointed by a person to make medical treatment decisions if the appointee is reasonably available and willing and able to make the medical treatment decision; or

(2) if someone is not appointed as described in (1), a guardian appointed by the Victorian Civil and Administrative Tribunal under the *Guardianship and Administration Act 2019* who has the power to make treatment decisions on behalf of a person under the appointment and is reasonably available and willing and able to make the medical treatment decision; or

(3) if no-one has been appointed, the first person in the statutory list of people provided in s 55(3) who has a close and continuing relationship with the person and who is reasonably available and willing and able to make a medical treatment decision,

(s 48 and s 55 of the *Medical Treatment Planning and Decisions Act 2016)*.

Nominated support person

A person nominated by a patient under Part 2.6 of the Act to support them, to advocate for them and receive information and be consulted about them in accordance with the Act.

Parent

Under section 3(1) of the Act, a parent, in relation to a person under the age of 18 years, includes the following—

(a) a person who has custody or daily care and control of the person;

(b) a person who has all of the duties, powers, responsibilities and authority (whether conferred by a court or otherwise) which by law parents have in relation to their children;

(c) any other person who has the legal right to make decisions about medical treatment of the person.

Patient

A person who is subject to an assessment order, court assessment order, temporary treatment order or treatment order, or a security or forensic patient, under section 3(1) of the Act.

Support person

Someone (including a child) who supports a person to make, communicate and give effect to that person's treatment decisions and represents the interests of the person in respect of the person's medical treatment, including when the person does not have decision-making capacity for medical treatment decisions (s 32(1) *Medical Treatment Planning and Decisions Act 2016*). A person can only appoint one support person (s 31(2) of the *Medical Treatment Planning and Decisions Act 2016)* and the support person acting in the capacity of a support person does not have the power to make the person's medical treatment decisions (s 32(2) of the *Medical Treatment Planning and Decisions Act 2016).*

Values directive

A statement in an advance care directive of a person's preferences and values as the basis on which the person would like any medical treatment decisions to be made on their behalf. This includes, but is not limited to, a statement of medical treatment outcomes that the person finds acceptable (s 6 *Medical Treatment Planning and Decisions Act 2016*).

Young patient

A patient who is under the age of 18 years (s 3(1) of the Act).

Young person

A person who is under the age of 18 years.

Clinical terms

Types of ECT

Acute ECT

A course encompassing two to three weekly treatments until symptoms ease.

Continuation ECT[1]

An extension of treatment up to six months immediately after an acute course of ECT. Continuation ECT may be considered where there is a history of early relapse after ECT, particularly while maintenance pharmacotherapy is being established.

Maintenance ECT[1]

Ongoing treatment provided at regular intervals, for periods beyond six months, to help sustain functional improvement. Maintenance ECT may help on a longer-term basis when the risk of recurrence is high or other treatments don't work.

[1] Elias, A, Phutane, V.H., Clarke, S and Prudic, J. (2018). Electroconvulsive therapy in the continuation and maintenance treatment of depression: Systemic review and meta-analysis. *Australian and New Zealand Journal of Psychiatry,* Vol 52(5): 415-424.

Electrode placement[2]

Bilateral ECT – bitemporal

Electrodes are applied to both temporal areas of the scalp.

Bilateral ECT – bifrontal

Electrodes are applied to both frontal areas of the scalp.

Unilateral ECT

Electrodes are applied over just the right hemisphere.

Pulse width

The duration of a pulse when a brief pulse and an ultra-brief ECT current is delivered.

Brief pulse ECT

ECT delivered with a pulse duration of 0.5 to 1.5 milliseconds.

Ultra-brief pulse ECT

ECT delivered with a pulse duration less than 0.5 milliseconds.

Dosing

The quantity of charge, measured in millicoulombs (mC), in Mecta and Thymatron devices.

[2] Queensland Health (2022). *The administration of ECT Guideline* accessed on 060823 at https://www.health.qld.gov.au/__data/assets/pdf_file/0028/444763/guideline-administration-electroconvulsive-therapy.pdf

Treatment principles and practice

The person's views and preferences must be regarded to inform any decision to prescribe ECT. This includes views in advance statements of preferences (if any), instructional directives and values directives.

Unless the person is an adult and has personally given informed consent in writing to receive ECT, before prescribing, the psychiatrist must be satisfied that in the circumstances there is no less restrictive way for the person to be treated. This includes having regard to their preferences including any beneficial alternative treatments, whether ECT is likely to remedy or lessen the person's symptoms and the consequences of not performing ECT. A thorough physical, psychological, and social evaluation should be conducted to consider their condition, treatment history, response to other treatments and their social circumstances, including support network.

Preparing for ECT

Information and support

Some consumers, together with their families, carers or supporters, may have concerns about the benefits, necessity and possible adverse effects of ECT. Although clinicians may see ECT as a valued and effective treatment option, it is important to be aware that this tension can affect the therapeutic relationship between clinicians, consumers, carers, families, carers and supporters.

Clinicians are well placed to give comprehensive information to support consumers, and their families, in participating in and making decisions about their mental health treatment, care and support, and to address any concerns. The Introduction, Situation, Background, Assessment, Recommendation (ISBAR) framework may help frame regular check-ins with the consumer. For further information, please visit the Australian Commission on Safety and Quality in Health Care website at: https://www.safetyandquality.gov.au/our-work/communicating-safety/clinical-handover/implementation-toolkit-clinical-handover-improvement

Discussions about treatment should be sensitive. Discuss possible adverse effects (including cognitive effects) openly with the consumer and their family, carer or supporter. The prescribing psychiatrist should take time to listen and respond to any concerns the consumer or their family, carer or supporter may have. Wherever possible, it is best to discuss the options of electrode placement, pulse width, ECT frequency and the likely number of treatments.

Cultural issues require careful consideration. Staff should ensure ECT practice is culturally appropriate.

Staff should be mindful of gender diversity and respect the consumer's preferences, for example, preferred pronoun use (he/him/she/her/they/them).

It may also help to ensure lived experience staff are available, including consumer and carer advisers as required, to provide culturally appropriate and gender-sensitive support.

A history of individual, intergenerational or vicarious trauma is likely to affect a consumer and their family, carer or supporter in their responses to treatment. This includes feelings of vulnerability about anaesthesia and ECT.

It is a legal requirement to have regard to the views and preferences of a range of individuals including consumers, guardians/parents, carers (in some instances) in addition to nominated support people. If an advance statement of preferences or instructional directive is in place that refers to the person's views on ECT, it must be considered. Any views on ECT must be

communicated to the clinicians involved to ensure procedures are adapted to the person's preferences and any recovery outcomes they would like to achieve.

Provide all consumers with the brochure Electroconvulsive treatment: statement of rights <https://www.health.vic.gov.au/mental-health-and-wellbeing-act-handbook/statement-of-rights/#statements-of-rights> regardless of legal status.

Explain the information in the brochure in a way that promotes the person's participation in decisions about their treatment. The person should also receive a local information pack giving details about treatment days and times and other relevant information. To ensure consistency of communication, the local information pack should not duplicate information about the nature and practice of ECT, legal procedures and other material covered in the *Statement of rights*. Where possible, it may be helpful to involve lived experience advisors, especially if they have knowledge of ECT. All reasonable steps must also be taken to provide the *Statement of rights* to any nominated support person, guardian, carer, parent (if the person is under 16 years of age), medical treatment decision maker and support person (if applicable) and Secretary to the Department of Families, Fairness and Housing (if the Secretary has parental responsibility). Allow adequate opportunity for them to ask questions.

Visits to the ECT treatment area before treatment may help allaying the concerns of consumers, families, carers and supporters.

It is important to check with consumers about the steps that might help relieve anxiety while waiting for treatment. Possible strategies include a sensory toolbox, their favourite music (via an electronic device with headphones if safe) and reading materials. The waiting area should be spacious and attractive.

Frequent consultation between consumers, family, carers and supporters, and nursing and medical staff, is essential before and during a course of ECT. This offers opportunities to promote patient safety and wellbeing and respond to any questions or concerns that may arise. All staff working in ECT should be trained to offer support that is trauma-informed and culturally safe. They should be able to communicate with compassion, within their scope of practice. Consistent information and advice are important.

Training in effective, compassionate communication is critical for all staff involved. This includes mental health clinical and non-clinical staff and the non–mental health staff who work in multipurpose treatment and operating suites. Clerical staff and managers may not have regular experience in administering ECT or responding to people with mental illness. It is vital that they speak respectfully to those receiving ECT to promote their psychological and cultural safety and wellbeing. They should respect the person's need for privacy and dignity, allowing them enough time to recover from treatment.

Aboriginal support and cultural safety

Cultural factors, such as identity, language and spirituality, as well as connection to Country, to family and to community, have a positive impact on the lives of Aboriginal people.

The Victorian Population Health Survey (2017) found that 47 per cent of Aboriginal people had experienced racism in health settings in the 12 months preceding the survey. In addition to overt racism, the day-to-day practices and policies of health services can be culturally unsafe for Aboriginal people. The Victorian Auditor-General's 2014 report *Accessibility of mainstream services for Aboriginal Victorians* noted lack of cultural safety as a significant barrier to accessing services.

Cultural safety is a fundamental human right. By law, public agencies must provide a safe workplace. Aboriginal cultural safety is defined as an environment that is safe for Aboriginal people, where there is no assault, challenge or denial of their identity and experience.

Evidence shows a need to increase access to Aboriginal peer support roles, with 72 per cent of respondents from one Aboriginal workforce survey noting 'more cultural mentoring and peer supports would make their job easier'. In the context of Aboriginal mental health and wellbeing, peer support roles undertake a similar support role to liaison officer roles. These roles, typically staffed by Aboriginal people, improve mental health outcomes for Aboriginal people. They support consumers to navigate and access services and can support services to work more effectively with Aboriginal families through cultural expertise, liaison and co-case management.

Services must be culturally safe for Aboriginal consumers and their families, carers and communities. Services are referred to *Koolin Balit* and the *National strategic framework for Aboriginal and Torres Strait Islander peoples' mental health and social and emotional wellbeing* for specific guidance.

Consider the following when supporting the safety of Aboriginal consumers in mental health services:

- Victorian Aboriginal communities are resilient, strong and rich in their culture. But colonisation, racism, discrimination and transgenerational trauma continue to have an impact on Aboriginal health and social and emotional wellbeing.
- Aboriginal consumers often prefer to deal with staff who are the same gender as them. For example, Aboriginal women may only be willing to speak to another woman due to cultural protocols. These cultural protocols also apply to men, who are more likely want to speak to another man.
- Where appropriate and available, Aboriginal consumers should be given the opportunity to engage with local Aboriginal community-led services and/or Aboriginal staff.
- Aboriginal self-determination, and Aboriginal concepts of health and social and emotional wellbeing, should be respected, upheld and at the forefront of decision making.

Aboriginal-specific supports include:

- Dijrra
- Victorian Aboriginal Health Service
- Boorndawan Willam Aboriginal Healing Service
- Yarning Safe and Strong.

Family, carers and supporters

Family, carers and supporters should be consulted about the proposed use of ECT.

A carer is someone who actively supports, assists or provides care to a consumer. A carer may or may not live with the consumer. A carer may be a family member, friend or other person, including someone under the age of 18 years, who has a significant role in the life of the consumer.
The inclusion of families, carers and supporters is encouraged throughout this document. The intent is to centre the consumer's views, preferences and best interests, recognising that the consumer may prefer that 'family of choice' is involved over 'family of birth'. It is therefore essential for optimising treatment, care and support to identify the consumer's preferred support people from the outset.

If the consumer does not consent to involving family, this should not be taken as an ongoing exclusion. Revisit the conversation about who makes up the consumer's support network to ensure staff are speaking to the correct family, carer or supporter. Consent to include the family, carer or supporter should be put to the consumer at regular points during treatment.

For people whose treatment is regulated under the Act, family, carers or supporters may be consulted without the person's consent. This includes, for example, if the disclosure to a carer is reasonably required to determine the nature and scope of care provided to the consumer and to make necessary arrangements to provide that care. The treatment decision is likely to affect the care relationship and support required, so it is not reasonable to assume otherwise.

Family, carers and supporters can offer useful information on the person's response to earlier courses of ECT. They are well placed to note improvements and adverse effects (especially cognitive effects) as treatment proceeds.

Medical assessment test

Conduct an appropriate medical history and physical examination before treatment. Physical illnesses that might compromise safety can then be properly investigated and treated. Although this is the responsibility of the prescribing psychiatrist, the administering practitioner also has a role in reviewing people's fitness on presentation to the ECT suite and in responding to changes in mental or physical status.

A decision to go ahead with ECT requires balancing risks against benefits while also considering consumer, family, carer and supporter preferences. Liaison between psychiatric, medical and anaesthetic clinicians is critical, and further investigations will often be needed before treating people with medical conditions that place them at higher risk. In services with a dedicated ECT suite, it will sometimes be necessary to administer treatment in a theatre or day procedure suite where more sophisticated resuscitation facilities are available.

Medication review

Before treatment, the prescribing psychiatrist must review all medications, including those that either raise or lower the seizure threshold. Benzodiazepines should be stopped wherever possible. Lithium carbonate has been linked with post-ECT confusion and should be stopped or at least reduced in dose. If the consumer is on anticonvulsant medications, then review the decision of either skipping the dose on the night before ECT, reducing the dose or stopping it completely. Consumers must be fully informed and involved in any decision to stop medication. They must be counselled to ensure they understand the reason and the need to restart medication following ECT. Decisions to reduce or stop medication before ECT must be clearly documented in the medical notes, together with the plan for restarting medicines as appropriate. Families, carers or supporters should be involved in these conversations, as far as possible, and made aware at the first opportunity.

Prescribing ECT

Responsibilities of the prescribing psychiatrist

It is the responsibility of this practitioner, who will usually be the treating psychiatrist, to ensure the following:

- People, and their families, carers or supporters, are supported to make and take part in decisions about their assessment, treatment and recovery by discussing the treatment rationale and reviewing the risks and benefits of ECT
- They have reviewed the consumer's capacity to consent
- They have obtained informed consent from the consumer (if the consumer has capacity to consent) according to the treatment principles, documenting it in the person's file

- If the person does not have capacity to give informed consent, an application must be made to the Mental Health Tribunal before ECT can be performed
- There is no less restrictive way for the person to be treated
- The prescription form is complete and the ECT dose (or dosing strategy), laterality and pulse width are entered on the prescription form
- Instructions for medications administered before ECT are communicated in writing to nursing staff
- The consumer has had a physical exam, investigations have been completed and instructions have been provided to staff about how to prepare the consumer for ECT
- Responses to acute treatments are monitored individually and the prescription adjusted if required to maximise benefits and minimise adverse effects. This monitoring must consider the benefits and risks from the consumer's perspective, in consultation with their family member, carer or supporter
- Questions or concerns raised by the consumer, their family, carer or supporter about treatment are responded to, and the consumer and their family, carer or supporter receives contact details for any questions after treatment.

Administering ECT

Responsibilities of the administering psychiatrist

As well as supporting the person receiving ECT, answering questions and giving advice, this practitioner should ensure:

- they introduce themselves by name to the person and their family member, carer or supporter
- the person's identification has been confirmed using self-reported identity and their wristband
- the person's legal status is known and aligns with the consent form
- the informed consent form or Mental Health Tribunal order (whichever is relevant) is valid
- approved treatment dates are current
- the correct dose and type of ECT to be administered are clearly identified
- the 'time out' procedure is conducted before the ECT is administered
- the motor and electroencephalography (EEG) seizure parameters are recorded
- the prescribing psychiatrist or delegate knows of any issues related to ECT administration and any urgent issues that will affect the person's care after they return to the recovery unit or ward and on future treatments.

Medical staff

At least two registered medical practitioners must be in the room when ECT is administered. One registered medical practitioner should be a psychiatrist or advanced psychiatric trainee who has completed an ECT course and is experienced in its administration. Psychiatric registrars/fellows should always have direct access to a supervising psychiatrist with expertise in ECT. This means a direct line of governance or supervision. However, the supervising psychiatrist does not have to be present in the ECT suite. The Chief Psychiatrist expects that any registrar delivering ECT is appropriately trained and has demonstrated competence.

The other medical practitioner must be a specialist anaesthetist or, in the absence of a specialist, a registered medical practitioner with privileges in anaesthesia at the ECT premises in line with Australian and New Zealand College of Anaesthetists (ANZCA) Professional Standard 2:

Credentialing and defining the scope of clinical practice in anaesthesia, 2006. The anaesthetist should have training and experience in anaesthesia for ECT. Where anaesthetic registrars administer the anaesthetic, a specialist anaesthetist must supervise.

Nursing staff

All nursing staff should have the necessary training and experience to perform the tasks required in the ECT suite.

Best practice states that an anaesthetic nurse is available to help the anaesthetist in line with the ANZCA Professional Standard 8: *Statement on the assistant for the anaesthetist, 2015*. This nurse should not be the ECT coordinator. The coordinator should be free to:

- support consumers
- communicate with the psychiatrist
- ensure treatments progress correctly
- fill out documentation.

The number of nursing staff needed to ensure adequate standards of practice will depend on the number of people receiving treatment. At a minimum, there should be:

- a registered nurse or registered enrolled nurse in or near the waiting area to offer consumers physical and psychological support
- the ECT coordinator and a specialist anaesthetics nurse in the ECT suite during treatment
- two nurses in the recovery area, one of whom must have advanced airway management skills (intubation skills excepted), whenever a consumer is present.

As well as providing comprehensive nursing care before and during the procedure and recovery, nursing staff have an important role to play in providing educational and emotional support to consumers, their families, carers and supporters. Such interactions offer the opportunity to:

- explore anxieties about ECT
- answer questions
- clarify misconceptions
- encourage them to express concerns or needs.

The role for lived experience staff, both consumer and carer, should be identified in conversation with those staff. Peer support should be available for the consumer, their family, carer and supporters.

Privacy

ECT must be performed in a way that respects privacy, dignity and confidentiality. Staff should be particularly mindful of privacy issues in multipurpose treatment suites. Consent is required for nursing or medical students to sit in on treatments. Any attending students must be supervised.

Bodily restraint

The Royal Commission into Victoria's Mental Health System recommended that the Victorian Government acts immediately to reduce the use of seclusion and restraint in mental health and wellbeing services. The aim is to eliminate these practices within 10 years (recommendation 54), that is, by 2031.

The Act regulates the use of bodily restraint (physical and mechanical restraint) in designated mental health services (Part 3.7 of the Act). Restrictive interventions, including bodily restraint, may only be applied to 'prevent imminent and serious harm to the person or another person', or 'in the case of bodily restraint – to administer treatment or medical treatment to the person'.

Bodily restraint may be applied before ECT, in line with the Act, if it is necessary 'to prevent imminent and serious harm to that person or another person or to administer treatment or medical treatment to be person' (s 127, s 128(1)). It can only be used 'if all reasonable and less restrictive options have been tried or considered and have been found to be unsuitable' (s 128(2)). This decision must be discussed with the treating psychiatrist or the service's clinical director, other key personnel and the consumer and their family, carer and supporters. Alternative approaches to pre-treatment agitation include administering a medication that reduces anxiety without having a negative impact on the seizure threshold (for example, an antipsychotic or non-benzodiazepine sedative). The consumer and/or their family, carer or supporter may have insights into the methods that will help avoid a physical or chemical restraint being used.

Bodily restraint is traumatising, and the experience may reinforce past trauma for a person who has a history of trauma. If bodily restraint is necessary to increase the safety and effectiveness of treatment, there must be an opportunity for the treating psychiatrist to discuss with the consumer and their family, carer or supporter the need for restraint after treatment and to respond to any concerns raised by the consumer, their family, carer or supporters. The aim should always be to reduce the impact of ongoing trauma. The consumer and their supporters should be offered support from a lived experience peer worker.

Please refer to the Chief Psychiatrist guideline on restrictive practices <https://www.https://www.health.vic.gov.au/practice-and-service-qualityreducing-restrictive-interventions>

Individualising ECT

The following treatment parameters are subject to clinical judgement. But they should be decided in consultation with the consumer and, where appropriate, their carer. If the consumer is giving informed consent, they must have enough information and support to decide each matter. If a person cannot give informed consent, the prescribing psychiatrist must consider the views and preferences of the person about ECT and the reasons for those views and preferences, amongst other factors.

Unilateral versus bilateral ECT

The choice of unilateral, bifrontal or bitemporal ECT is a clinical decision based on an individualised assessment. Bitemporal ECT causes more cognitive impairment, not all of which may reverse. Unilateral ECT delivered at five to six times[3][4] the seizure threshold is almost as effective and causes significantly less cognitive impairment. Current best practice favours unilateral treatment. If there is no reasonable alternative to bilateral treatment, bifrontal is preferred over bitemporal placement.

About 13 per cent of patients treated with bitemporal ECT develop retrograde amnesia that does not resolve at the end of six months. A systematic review and meta-analysis suggested no significant

[3] Sackeim HA, Prudic J, Devanand DP, et al. 2000, 'A prospective, randomized, double-blind comparison of bilateral and right unilateral electroconvulsive therapy at different stimulus intensities', *Arch Gen Psychiatry*, 57(5):425–434.

[4] RANZCP 2019, *Professional practice guidelines on the administration of electroconvulsive therapy*.

difference in efficacy between bitemporal ECT and high-dose right unilateral ECT. Considering the best available evidence, efficacy and ethics (no harm), right unilateral is the recommended default practice.

Bifrontal ECT is increasingly used internationally for its therapeutic potential and better side-effect profile compared with bitemporal ECT[5]. Bifrontal ECT also has less impact on the cardiac rhythm (during the stimulus) than other forms of ECT[6]. Therefore, bifrontal ECT should be considered when treating patients at risk of ECT-induced arrhythmias.

Bitemporal placement is recommended in the following situations including disorders for which there is not enough data on the efficacy of right unilateral placement:

- delirious mania
- intractable epilepsy
- patient's informed preference.

In contrast to the long-held notion, right unilateral ECT works well on catatonia.[7] This syndrome itself does not justify bitemporal placement. Also, the severity of the disorder does not necessarily mean a lack of efficacy of right unilateral ECT. It is important to note that the benefits of ECT cumulate. A randomised trial divided participants who did not improve after receiving right unilateral ECT into two groups: those who continued right unilateral ECT and those who switched to bitemporal ECT. The efficacy was the same in both groups, suggesting continued improvement with right unilateral ECT despite no improvement with earlier treatments.

Frequency of acute treatments

Both unilateral and bilateral ECT should be given at a rate of two or three treatments per week. Twice-weekly ECT is likely to reduce cognitive side effects. Increasing the frequency of treatment beyond three times weekly increases the degree of cognitive impairment and does not speed recovery.

Number of acute treatments

Continually review the number of treatments prescribed. Treatments may be prescribed one by one if required. One course may follow another if clinically indicated, provided that informed consent and/or the approval of the Mental Health Tribunal is granted (whichever is relevant).

If more than two consecutive acute courses of ECT are considered, conduct a comprehensive review of the treatment plan, and get a second opinion. This will ensure all clinical and psychosocial factors are explored and all treatment options considered.

Anaesthesia

The anaesthetist will choose induction and anaesthetic agents after speaking with the treating psychiatrist. Overarching principles for anaesthesia for ECT include:

- ensuring the seizure threshold is not excessively elevated by drugs or doses used
- optimising ventilatory management

---

[5] Dawkins 2012; Dunne & McLoughlin 2012

[6] Stewart et al. 2011

[7] Kugler JL, Hauptman AJ, Collier SJ, et al. 2015, 'Treatment of catatonia with ultrabrief right unilateral electroconvulsive therapy: a case series', *The Journal of ECT*, 31(3):192–196.

- minimising cognitive impact in terms of drugs and techniques used
- using drugs and techniques to minimise other risks such as respiratory depression
- recognising the risks of ECT such as cardiac arrhythmias
- monitoring appropriate physiological parameters during the procedure.[8]

Induction agents may be co-prescribed with opioids or dose titration to reduce anticonvulsant effects. Consider this when the:

- electrical charge rises quickly
- seizure quality is poor
- clinical response is slow.

Keep records of anaesthetic and relaxant agents given and of any problems and complications that arise.

Pre-stimulus ventilation with oxygen, to increase oxygen and reduce carbon dioxide levels, lowers the seizure threshold and reduces cardiovascular complications.

Electrical contact

It is important to test for adequate contact between the electrodes and the scalp using the ECT machine's impedance function. Do this once the person is anaesthetised.

Stimulus dosing

Seizure threshold is the minimum stimulus dose at which a bilateral generalised seizure is elicited. The threshold depends on the type of stimulus used and other factors including age, gender and medication. It typically rises as a course progresses.

Electrical stimulation must exceed the seizure threshold if treatment is to be effective. For bilateral ECT, therapeutic stimulation is typically set at 1.5 times threshold. Higher levels cause more cognitive impairment. Lower levels reduce efficacy. For unilateral treatment, stimulation is set at three to five times threshold for brief pulse ECT and six times threshold for ultra-brief pulse ECT.

Several stimulus dosing protocols are published in ECT literature. Display the selected protocol prominently in the treatment area. The administering psychiatrist should follow this to the letter.

Seizure threshold estimation

Seizure threshold is determined in the first session via a series of stimulations of increasing intensity up to a maximum of three per session. But this depends on the decision of the administering psychiatrist and anaesthetist. If threshold is not established after three stimulations, the protocol should specify the final stimulus that will be effective in most cases while minimising the risk of post-treatment cognitive impairment. Efforts to establish the threshold then resume in the second session, as per the selected dosing protocol.

[8] RANZCP 2019, *Professional practice guidelines on the administration of electroconvulsive therapy*.

Re-stimulation during ECT course

If in future sessions a seizure is not elicited, or is inadequate, another stimulus may be applied with a higher charge after a delay of 90 seconds. This is provided satisfactory anaesthesia and muscle relaxation are maintained. The dosing protocol will determine the charge levels.

Once seizure has been elicited, further stimulations on the same day are not ideal. Multiple stimulations producing seizures prolong anaesthesia and can lead to cardiac and cognitive complications.[9] However, this decision of administering the supra-threshold ECT on the same day needs to be considered depending on the risks and benefits, especially in life-threatening situations such as catatonia.

Determining seizure adequacy

Monitor the seizure during treatment. Use EEG monitoring to track seizure quality.

Review of the stimulus dose

Review the stimulus dose after each acute treatment, at a predetermined time, based on the electrical and clinical response. Do this in collaboration with the consumer and their family, carer or supporter. An increase in dose may be indicated if the clinical response is poor. Evidence does not support increasing the dose based on a short seizure. The seizure duration should be progressively short over a course of ECT given the anticonvulsant property of ECT. For this reason, a prolonged seizure, more than 120 seconds, may need increased dosing. A re-titration procedure is recommended during a course of continuation (up to six months after remission). Maintenance treatment (beyond six months) is useful if the gap between two consecutive ECTs is more than two months. This recommendation is based on a theoretical framework of altered seizure threshold as well as evidence showing prolongation of seizures lose efficacy after two months.[10,11,12,13]

[9] Rasmussen K 2002, 'The practice of electroconvulsive therapy: recommendations for treatment, training, and privileging, 2nd edn,' *The Journal of ECT*, 18(1):58–59.

[10] Sackeim HA 1999, 'The anticonvulsant hypothesis of the mechanisms of action of ECT: current status', *The Journal of ECT*, 15: 5–26.

[11] Wild B, Eschweller GW, Bartels M 2004, 'Electroconvulsive therapy dosage in continuation/maintenance electroconvulsive therapy: When is a new threshold titration necessary?' *The Journal of ECT*, 20: 200–203.

[12] Elias A, Phutane VH, Clarke S, Prudic J 2018, 'Electroconvulsive therapy in the continuation and maintenance treatment of depression: Systematic review and meta-analyses', *Australian and New Zealand Journal of Psychiatry*, 52(5):415–424.

[13] Ibid.

Recovery

During recovery from the anaesthetic, nursing staff should monitor the airway, pulse and blood pressure until stable. If the person is agitated when waking from the general anaesthetic, they may need an intravenous bolus of anaesthetic agent or another sedative. This is at the anaesthetist's discretion. There should be continuous nursing and emotional and psychological support until the person is reoriented.

Non-pharmacological approaches to soothe agitation can be beneficial. The role of the person's family, carer or supporter in giving emotional and psychological support (potentially in the recovery area) should be included in the ECT recovery plan.

Complex clinical situations

Medical frailty

Electrical stimulation results in a brief period of bradycardia, even asystole, followed by an increase in pulse rate and blood pressure. There is some risk of myocardial ischaemia, so people with ischaemic heart disease require close observation. Recent myocardial infarction, unstable angina, poorly controlled congestive heart failure and significant arrhythmias increase risk further and should be reviewed by a physician before treatment. Brief the anaesthetist beforehand.

Helpful steps to prepare for ECT include correcting any dehydration and electrolyte imbalance, nitrate prophylaxis, hyper-oxygenation and avoiding bilateral stimulation. The physician or anaesthetist may advise that ECT be administered in theatre, close to full resuscitation facilities.

Take care when severe depression accompanies a refusal to eat or drink. Subcutaneous fluids are feasible on most psychiatric inpatient units, supplemented with intravenous fluids immediately after treatment via the anaesthetic cannula. Carefully weigh the risks and benefits of ECT before every treatment. Ensure daily medical reviews are in place over weekends and public holidays.

With respect to specific medical conditions:

- Discuss cardiac pacemakers with a cardiologist beforehand. The cardiologist may suggest that a cardiac technologist attends.
- Oesophageal reflux needs prophylactic management, extending in severe cases to intubation before stimulation.
- Marked osteoporosis calls for careful muscle relaxation to avoid vertebral and other fractures.
- Avoid ECT in the month after a stroke. Resume only after clearance from a neurologist.

Cognitive impairment

Some older people experience cognitive impairment, even before the onset of their present mental disorder. Capacity to consent to treatment can vary throughout the day. Consider making decisions when the older person has greatest capacity.

Checking their cognitive status requires an informant history, pre-treatment cognitive testing where tolerated and regular retesting thereafter. Ultra-brief pulse unilateral ECT has a significantly reduced risk of post-ECT confusion and is therefore preferred, except when known to be ineffective. Dose titration in the first session ensures the electrical charge is adequate but not excessive.

If the person has dementia, the high risk of prolonged confusion after ECT makes it important to request an opinion from a psychiatrist specialising in care of older people.

Most consumers and families, carers or supporters are concerned about the effect of ECT on cognition, and memory. These effects are most pronounced with high-energy, bitemporal ECT, which should be avoided wherever possible. Given widespread concerns about cognition, conduct formal assessments before treatment, after every third ECT and at the end of the course. In certain instances, cognitive assessment may be conducted more frequently – for example, when delirium is suspected. Share these test results with the consumer, their family, carer and supporters each time. If testing is not tolerated, make a note to this effect in the clinical record. A brief standardised test is better for consistency and to track changes over time.

Pregnancy

ECT is sometimes the safest treatment for serious mental disorders during pregnancy. Carefully consider the benefits versus risks and discuss these with an obstetrician.[14] Risks associated with administering ECT during pregnancy include foetal bradyarrhythmias and hypoxia, maternal oesophageal reflux and premature labour induction, observed during the second and third trimesters. It is unclear whether ECT increases the risk of this last complication. Maternal and foetal monitoring is recommended before, during and after performing ECT. ECT after the 20th week of pregnancy should be administered in a hospital with obstetric support and access to a perinatal psychiatrist.

Pregnant women and clinicians must weigh up the risks to both mother and foetus involved in using ECT on a pregnant woman. This is especially the case for women with severe psychiatric symptoms that may increase her risk of self-harm or compromise her ability to take care of herself or her pregnancy.

[14] RANZCP 2019, *Professional practice guidelines on the administration of electroconvulsive therapy*.

Strategies to reduce cognitive adverse effects of ECT

Start ECT with the right unilateral electrode placement, preferably ultra-brief. The type and frequency of ECT administration depends on risks and benefits. Right unilateral brief pulse ECT has the same efficacy when administered twice a week or three times a week, but the former is associated with fewer cognitive side effects.[15,16,17,18] Proper titration, and using an appropriate suprathreshold dose, without unnecessarily increasing the dose, may help to reduce cognitive adverse effects.

Monitoring the clinical response

The prescribing psychiatrist should record the person's clinical response at least weekly after an acute course of ECT. If there is no improvement, reconsider all aspects of the treatment regimen.

Good communication between the prescribing and administering psychiatrists, the ECT coordinator and the patient and their family, carers and supporters is critical.

The prescribing psychiatrist should record:

- the prescribed stimulus
- the clinical response to date
- changes in mental or physical status and medication
- changes in legal status
- cognitive and other side effects.

Record all aspects of treatment (including anaesthesia) in a single document. If prescribing psychiatrists cannot attend the weekly meeting, feedback any concerns or suggestions about prescriptions to allow them to fulfill their responsibility to optimise treatment. Where circumstances make it impossible for prescribing doctors to adjust the ECT prescription, the ECT director or delegate may amend the treatment details.

Outcome measures

The Client Management Interface includes a brief tool, the Clinical Global Impressions Scale, to confirm that treatment is helping. A clinician (usually the treating psychiatrist or trainee) should complete this scale with the consumer and their family/carer/supporter after every third treatment, and after the last acute or continuing treatment. Do this more frequently if there are concerns.

---

[15] McAllister DA, Perri MG, Jordan RC, et al. 1987, 'Effects of ECT given two vs. three times weekly', *Psychiatry Research*,21(1):63–69.

[16] Thirthalli J, Naik SS, Kunigiri G 2020, 'Frequency and duration of course of ECT sessions: an appraisal of recent evidence', *Indian Journal of Psychological Medicine*, 42(3):207–218.

[17] McAllister DA, Perri MG, Jordan RC, et al. 1987, 'Effects of ECT given two vs. three times weekly', *Psychiatry Research*, 21(1):63–69.

18 Thirthalli J, Naik SS, Kunigiri G 2020, 'Frequency and duration of course of ECT sessions: an appraisal of recent evidence', *Indian Journal of Psychological Medicine*, 42(3):207–218.

The Hamilton Depression Rating Scale, which is widely used in ECT research, collates information about a person's depressive signs and symptoms. It takes little extra time to complete but is copyright-free.

Consider outcome measures in weekly review meetings and monitor them periodically (for example, six-monthly) to identify which groups of people have responded well to ECT and which have not. The finding that people with characteristics (for example, age or diagnosis) have responded poorly should prompt a review of local treatment policies and practices.

Outpatient ECT

Prescribing ECT on an outpatient basis is a clinical decision, made with the person's preferences and best interests in mind. Evaluate the following when considering outpatient treatment:

- the nature and seriousness of the person's mental illness
- medical conditions that present significant risk
- the person's ability to adhere with fasting, medication adjustments, time-keeping and other restrictions
- available transport
- the support available from family/carers/supporters before and after treatments.

Note: It is recommended that family and carers support the person for the first 24 hours after ECT. It is important that families, carers and supporters are not placed a position of accepting a responsibility that they are not able to carry out without experiencing considerable distress, be that psychological, social or financial.

Communicate treatment arrangements in writing to consumers and family/carers/supporters. A written form should include the:

- treatment date and time
- fasting and medication requirements
- advice about clothing and hair care
- post-treatment care
- transport requirements
- escort arrangements
- advice about dealing with new physical symptoms
- contact details for any questions or concerns raised by the person after treatment.

The case manager or psychiatrist must ensure the clinical record is available in the ECT suite before administering treatment.

The case manager can provide information about feedback and complaint pathways, including the internal escalation procedure and/or the Mental Health Complaints Commissioner, if the consumer isn't satisfied with the treatment or procedure. It is also best for the case manager to give information about consumer and carer supports, should the consumer, family, carer and supporters need this.

The treatment plan should specify the timeframe between the treating psychiatrist's reviews. The treating psychiatrist needs access to the ECT record to make any adjustments to the prescription.

For people receiving voluntary ECT as an outpatient, review the need for ongoing treatment in depth with the consumer and family/carers/supporters at least every three months (or as requested by the consumer, family carers and supporters). Let the consumer, family, carer or supporter know

that they can request a review. During consults with the consumer, give the consumer, family, carer and supporters information about the risks and benefits of ECT to help them participate in decision making. Consider the diverse factors that could affect the consumer's understanding of this information including their age and cultural diversity. But, wherever possible, have the consumer undertake the first course of ECT as an inpatient to allow better monitoring of the response.

Transport arrangements and aftercare

A family member/carer/supporter or other responsible adult must escort consumers to and from the suite and stay with them for 24 hours after treatment. This escort must be informed of typical adverse effects and mental and physical responses that need medical attention.

The anaesthetist and/or ECT coordinator will decide when it is safe for the person to leave the ECT suite. Continue routine observations for a minimum of two hours after ECT. Record any exceptions to this recommendation in the treatment plan.

Give all consumers and their families, carers and supporters, as appropriate, a 24-hour number to call in the event of any problem. Give consumers and families/carers/supporters specific advice about when to seek urgent medical attention.

If long journeys are required health services may need to facilitate access to local accommodation to support recovery.

Consumer and carer comfort

Toilet facilities must be available before and after treatment. Food and drink must also be provided after treatment and before discharge. There should also be a private area, which is not a room used for restraint if a change in a person's mental or physical state calls for more assessment and support.[19]

Risk management

The treatment plan must specify which psychiatrist is responsible for prescribing treatments and checking people's progress and safety between treatments.

Consumers and their families/carers/supporters must have a written emergency safety plan in the event of a rapid deterioration in mental or physical state and risk profile.

[19] Elias A, Ang A, Schneider A, George K 2019, 'Family presence during electroconvulsive therapy', *The Journal of ECT*, 35(2):91–94.

Mental Health and Wellbeing Act

The *Mental Health and Wellbeing Act 2022* comes into effect on 1 September 2023.

The Act provides a framework to ensure all people with a mental illness or psychological distress receive care and treatment that meets their needs, with the least possible restrictions to their rights and dignity.

The Act is also intended to give support to families, carers and supporters of a person receiving mental health and wellbeing services in their role in taking part in decisions about the person's assessment, treatment and recovery.

The Act is a legal framework that aims to promote people's mental health and wellbeing. One of the key features of this Act is regulating ECT.

Under the Act, it makes it clear that ECT is an extraordinary form of treatment and that this treatment (like neurosurgery) should only be performed without consent in very limited situations. For example, ECT treatment cannot be given to a young person without the Mental Health Tribunal's authorisation, even if the young person consents to it. Designated mental health services that administer ECT must comply with strict guidelines and procedures, and report to the Chief Psychiatrist on treatment use. This ensures ECT is used appropriately and only when necessary, and that the rights and wellbeing of people who receive ECT are protected.

Service providers are also required to consider relevant rights protected by the Charter of Human Rights and Responsibilities Act 2006 (the Charter). The requirement for service providers to make all reasonable efforts to comply with the Mental Health and Wellbeing Principles when exercising a function and consider those principles when making a decision. The introduction of the Decision-making Principles for treatment and interventions and Information Sharing Principles will ensure that the primary decision-making powers and functions in the Act will be exercised in a manner that is compatible with Charter rights.

Informed consent

Adults

An adult (i.e., a person 18 years or older) who is receiving mental health care on a voluntary basis may give informed consent to ECT in writing (s 103(a)). If they do not have capacity to give informed consent, the Mental Health Tribunal can authorise ECT in certain circumstances (s 103(b)).

Capacity to give informed consent

Adult persons under the Act are presumed to have decision making capacity (s 85) unless expert assessment proves this is not the case. With respect to ECT, a person has the capacity to give informed consent if they can (s 87(1)):

- understand the information they are given for the purpose of deciding whether to consent
- remember the information
- use or weigh the information in deciding whether to consent
- communicate their decision by any means, including speech, gestures etc.

The judgement about capacity must be fair and reasonable and line up with the spirit of the Act. A person cannot be said to lack capacity because they have symptoms of mental illness, or do not believe they have a mental illness, or refuse to discuss the option of ECT. This is because a

person's capacity to make decisions must consider their individual circumstances, including the effects of any mental illness or treatment that might be shaping their decision making.

There must be an entry in the person's clinical file describing what factors led the prescribing psychiatrist to conclude that the person did or did not have capacity to decide about ECT.

Capacity must be reviewed regularly as treatment progresses. If capacity returns, the person's own decision about treatment must prevail. If there is a loss of capacity in a person who has previously consented to treatment, an application must be lodged with the Mental Health Tribunal, if the treatment is to continue. This applies to patients under the Act, as well as to consumers.

To provide informed consent, the person must have enough information to make an informed decision including:

- the purpose of ECT
- the type, method and likely duration of the ECT
- the advantages and disadvantages of ECT
- the discomfort, risks and common or expected side effects of ECT
- any beneficial alternative treatments that are reasonably available and their advantages and disadvantages
- any advantages or disadvantages of not having ECT
- any other relevant information that is likely to influence their decision
- a chance to ask questions and have them answered
- the *Statement of rights* booklet.

To help them reach a decision, the person must be given:

- reasonable time to consider the decision
- an opportunity to discuss matters with the psychiatrist who is proposing the treatment
- supports to help the person make the decision
- an opportunity to get the support or advice of family members, carers and supporters, independent advocates and legal advisers.

Consent must be given freely, without undue pressure or coercion.

If the Mental Health Tribunal approves the ECT, informed consent for ECT and the associated anaesthesia must be given in writing using the *Informed consent to electroconvulsive treatment* (MHWA 131) form or the *Informed consent to electroconvulsive treatment by a medical treatment decision maker* (MHWA 131A) form.

It is best that the psychiatrist or a delegated medical practitioner gets the informed consent. It must be documented in the person's notes/file.

Right to withdraw consent

People who have consented to ECT have the right to withdraw consent at any time before or during treatment. It is important that consumers as well as any family members, carers and supporters know of this right and that this is documented in the person's file.

Application for ECT for adults

If an authorised psychiatrist believes that an adult patient does not have capacity to give informed consent and that there is no less restrictive treatment available, an application can be made to the Mental Health Tribunal to perform a course of ECT (s 99(1) using form MHWA 132 (*Application for ECT).*

The same process exists for an adult consumer receiving voluntary treatment with the additional requirement that the person must have an instructional directive giving informed consent to ECT, or their medical treatment decision-maker must have provided written informed consent (s 104(1)). In that case, a psychiatrist makes an application using form MHWA 132A (*Application for ECT voluntary adult without capacity to consent*).

In deciding if there is no less restrictive treatment, the authorised psychiatrist must consider:

- the person's views and preferences (including the views expressed in an advance statement of preferences (if the person is a patient s 99(2)(b)), or values directive (if the person is non-patient s 104(2)(b))
- the views of the person's support person (if any) (s 99(2)(c) – patient and s 104(2)(e) – non-patient)
- if the person is a voluntary consumer, the views of their medical treatment decision-maker (as defined in *the Medical Treatment Planning and Decision Act 2016*) (s 104(2)(c))
- the views of the person's guardian (s 99(2)(d) – patient and s 104(2)(d) - consumer)
- the views of a carer if the decision to perform ECT will directly affect the carer and the care relationship (s 99(2)(e) – patient, s104(2)(f) – consumer)
- whether treatment is likely to remedy or lessen the symptoms of mental illness (s 99(2)(f) – patient, 104(2)(g) – non-patient)
- the likely consequences for the person if ECT is not performed (s 99(2)(g) – patient, s104(2)(h) – consumer)
- any second psychiatric opinion given to the psychiatrist making the application (s 99(2)(h) – patient, s 104(2)(i) – consumer).

If ECT is needed urgently to save the person's life, prevent serious damage to the person's health or prevent the person suffering significant pain or distress, the psychiatrist may request an urgent Tribunal hearing (s 97(2)). Since urgent hearings limit the person's ability to seek support and advice, including legal advice and representation, they are only for exceptional circumstances.

After receiving an application, the Tribunal will schedule and complete the hearing within five business days, with notice to the person. The Tribunal will subsequently send a notice of the making of an order authorising ECT, or refusal to authorise ECT, to the psychiatrist, the patient/non-patient the subject of the order, and any nominated support person, medical treatment decision-maker, guardian and/or carer (s 101(1) – patients, s 106(1) – consumers).

The psychiatrist must prepare a written report for the Tribunal using form MHT 6 (*ECT report – Adult patients*). The patient must also receive the report and any other documents relating to the hearing at least two business day before the hearing, unless an exception applies.

ECT applications are heard and determined by a special division of the Tribunal comprising a lawyer, psychiatrist and community member. The patient is encouraged to attend the hearing and be represented by anyone of their choice, including a lawyer.

If it authorises a course of ECT, the Tribunal will specify the number of treatments that can be administered in the course (up to a maximum of 12 treatments) and the date by which the course of ECT must be completed (no more than six months from the date of the hearing) (s 96(1)). More information about the Tribunal's procedures and forms is available on the Mental Health Tribunal's website <www.mht.vic.gov.au>.

The psychiatrist may apply to the Tribunal for approval to start another course of ECT during or after the first course (ss 99(3) and 104(3)). If another course is approved, this automatically ends the previous one (ss 102(2)(f), 107(2)(g)).

Young people

The Act regulates ECT use for all young people under the age of 18 years, whether voluntary or compulsory, even when the young person has given informed consent. This includes those in private hospitals and clinics.

All young people are presumed to have capacity to give informed consent to ECT unless lack of capacity is proven.

ECT may be performed on a young patient or non-patient if the Tribunal has made an order authorising the treatment (ss 108 /113).

Application for ECT for young people

A psychiatrist may apply to the Tribunal to perform a course of ECT if a young patient:

- has given informed consent in writing to receiving the course of treatment (s 109(1)(a)), or
- does not have capacity to give informed consent for the course of treatment and the authorised psychiatrist is satisfied there is no less restrictive way for treatment to be provided (s 109(1)(b)).

A psychiatrist may apply to the Tribunal to perform a course of ECT if a young person who is not a patient:

- has given informed consent in writing to receiving the course of treatment (s 114(1)(a)), or
- does not have capacity to give informed consent for the course of treatment, but the young person's medical treatment decision-maker has given informed consent in writing to the young person receiving the course of treatment and the psychiatrist is satisfied there is no less restrictive way for treatment to be provided (s 114(1)(b).

In deciding whether there is a less restrictive way for the young patient/consumer to be treated, the psychiatrist must consider:

- the young person's views and preferences (including the views and preferences expressed in an advance statement of preferences (if the person is a patient s 109(2)(b)) or values directive (if the person is a non-patient s 114(2)(c)) regarding ECT and the reasons for those views and preferences including any beneficial alternative treatments that are reasonably available and any recovery outcomes the young person would like to achieve (ss 109(2)(a) and 114(2)(a))
- the views and preferences of the young person's nominated support person (ss 109(2)(c)/114(2)(b))
- if the young person is a non-patient, the views of their medical treatment decision-maker (as defined in *the Medical Treatment Planning and Decision Act 2016*) (s 114(2)(d))
- the views of the carer if the decision to perform ECT will directly affect the carer and the care relationship (ss 109(2)(d) and 114(2)(e))
- the views of a parent if the young person is under the age of 16 years (ss 109(2)(e)/114(2)(f))
- the views of the Secretary of the Department of Families, Fairness and Housing if the young person is under a relevant child protection order (s 109(2)(f)/114(2)(g))
- whether the ECT is likely to remedy or lessen the symptoms of mental illness (ss 109(2)(g)/114(2)(h))
- the likely consequences for the young patient/person if ECT is not administered (ss 109(2)(h)/114(2)(i))
- any psychiatric opinion given by another psychiatrist and provided to the authorised psychiatrist (ss 109(2)(i)/114(2)(j)).

The psychiatrist must prepare a written report for the Tribunal using form MHT 7 (*ECT report – Young person – patient*) or form MHT 8 (*ECT report – Young person – voluntary*).

After receiving an application, the Tribunal will schedule a hearing and send a notice of hearing to all parties. All other requirements are the same as those applying to a hearing for adult persons – for example, the young person's right to access documents at least two business days before the hearing.

The Tribunal will consider the views and preferences of the young person, and other relevant people, in deciding whether to approve ECT. To approve ECT, the Tribunal must be satisfied that the young person either:

- has given their informed consent in writing to ECT
- is a patient and does not have capacity to give informed consent and there is no less restrictive way for the young person to be treated, or
- is not a patient and does not have capacity to give informed consent and a person who has the legal authority to consent to ECT for the young person has given informed consent in writing.

Chief Psychiatrist's requirements

The Chief Psychiatrist does not make decisions about treatment but must be informed in writing and in advance of plans to administer ECT to a person in a designated mental health service (s 118). The report must contain matters requested by the Chief Psychiatrist and must be given within the time requested by the Chief Psychiatrist. Further information can be found in the chief psychiatrist's directive: *Reporting requirements for electroconvulsive treatment (ECT) and neurosurgery to the chief psychiatrist* at <https://www.health.vic.gov.au/publications/chief-psychiatrists-guideline-on-electroconvulsive-treatment>

Consumers' rights

Statement of rights booklet

The prescribing psychiatrist must ensure a person who is prescribed ECT, or is likely to be prescribed ECT, is given a copy of the booklet Electroconvulsive treatment: statement of rights <https://www.health.vic.gov.au/mental-health-and-wellbeing-act-handbook/statement-of-rights/#statements-of-rights>. This booklet sets out their rights under the Act.

This statement of rights must also be provided to:

- the person's nominated support person
- the person's guardian
- the person's carer if the treatment will directly affect the carer and care relationship
- a person's medical treatment decision maker if they've given informed consent
- a parent if the person is under 16 years
- the Secretary of the Department of Families, Fairness and Housing if the person is under a relevant child protection order.

After the psychiatrist provides written and oral information, the person and their family, carer or supporter should be offered the opportunity to discuss any concerns or issues with a member of the lived experience workforce.

Questions put by the person, family, carers or supporters must be answered as clearly and completely as possible, preferably by the prescribing psychiatrist.

If the person or family, carer or supporter has difficulty understanding the booklet's contents, summarise the information verbally at a time and place when they are in a state of mind to comprehend it.

When discussing the *Statement of rights*, the psychiatrist must provide appropriate supports if needed to help the person to understand the information and to make or take part in the decision. For example:

- if English is not the person's first language, providing an interpreter to ensure the key details are understood
- communicating in an appropriate physical or sensory environment
- communicating in a way tailored to the person's needs, including their literacy, developmental or cultural needs.

Organisations like the Independent Mental Health Advocacy Service or Victoria Legal Aid may be helpful in providing this support.

Confidentiality

The Act prohibits staff (including former staff) of a mental health and wellbeing service provider from disclosing health information about a person who is or has been receiving mental health services, without that person's consent (s 730(1)(b)). The Act allows disclosure in limited circumstances without the person's consent including (but not limited to):

- disclosure is made to the parent of a person under 16 years old (s730(2)(h))

- where the disclosure is made in general terms to family, carers and supporters and sharing the information is not contrary to the person's expressed views and preferences, and such disclosure is not limited due to a risk of family violence or other serious harm (s 730(2)(f))
- where the disclosure is reasonably required by another mental health service or health service provider to provide health services to the person (s 730(2)(d))
- where the person is a patient, and the disclosure is reasonably required by the patient's carer to determine the nature and the scope of the care to be provided to the patient and to make the necessary arrangements to provide the care and regard has been had to the person's views and preferences including those expressed in any advance statement of preferences) (s 730(2)(g))
- where the disclosure is made to the person's guardian (s 730(2)(n)) or medical treatment decision-maker (s 730(2)(o)) or support person (under *the Medical Treatment Planning and Decisions Act 2016*) (s 730(2)(p)) and is reasonably required for performing their duties or powers.

Medical Treatment Planning and Decisions Act

The *Medical Treatment Planning and Decisions Act 2016* allows a person who has decision-making capacity to appoint another person as their medical treatment decision-maker or to give consent in advance, via an advance care directive. An advance care directive must be made, and a medical treatment decision-maker appointed, when a person has decision-making capacity.

An advance care directive can include instructions for, and a medical treatment decision-maker can make decisions about, treatment for mental illness. This includes decisions about voluntary ECT. In these circumstances, approval from the Mental Health Tribunal is also required. This process is outlined in the section above.

An advance care directive will have no effect on, and a medical treatment decision-maker cannot make decisions about, treatment for a person while they are a patient under the Act.

Advance care directives

Advance care directives express preferences and decisions in advance. This means a person's decision can be given effect to in the future if they no longer have decision-making capacity.

An advance care directive can provide or refuse consent to certain medical treatments. A **values directive** outlines the person's preferences and values (if a medical treatment decision-maker or other person is going to decide for them).

An **instructional directive** differs from an advance statement of preferences under the Act because it is binding. For an advance care directive to be valid the signing of the documents must be witnessed by two adults, one of whom is a medical practitioner. The witnesses must certify that:

- the person appeared to have decision-making capacity in relation to each statement in the directive
- the person appeared to sign the document freely and voluntarily
- the person signed the document in the presence of the two witnesses
- the witnesses are not appointed medical treatment decision-makers of the person
- the person appeared to understand the nature and effect of each statement within the directive (s 17 of *the Medical Treatment Planning and Decisions Act 2016*)).

Medical treatment decision-makers

If there is no instructional directive, a medical treatment decision-maker can make treatment decisions in their place. Medical treatment decision-makers are appointed by the person in advance and in writing following a prescribed process.

For a person over 18 years old, a medical treatment decision-maker is the first person who is willing and able and reasonably available of:

1) a medical treatment decision-maker appointed under section 55(1) of the *Medical Treatment Planning and Decisions Act 2016*

2) if no one has been appointed, a guardian appointed by the Victorian Civil and Administrative Tribunal with the power to make medical treatment decisions who is reasonably available and willing and able to make the medical treatment decision, or

3) if (1) and (2) do not apply, the first of the following persons with a close and continuing relationship with the person and who, under the circumstances is reasonably available and willing and able to make the decision:

- the spouse or domestic partner of the person
- the primary carer of the person
- the oldest of the following:
    - the adult child
    - the parent
    - the adult sibling.

For a person under 18 years old, a medical treatment decision-maker is their parent or guardian or other person with parental responsibility for the child who is reasonably available and willing to make the medical treatment decision.

To provide informed consent, medical treatment decision-makers must be given the same information, with the same level of support, as the person would have been given had they had capacity.

Please note that Part 4 of *the Medical Treatment Planning Decisions Act 2016*, which includes the above information on medical treatment decision makers, does not apply in relation to treatment for mental illness including ECT (if the person being treated is a patient).

For more information, refer to the *Medical Treatment Planning and Decisions Act* <https://www.legislation.vic.gov.au/in-force/acts/medical-treatment-planning-and-decisions-act-2016/008>.

Refusal of ECT

If a person has an instructional directive refusing ECT, or the medical treatment decision-maker refuses ECT on the person's behalf, this consent pathway closes. Even if the Tribunal approves treatment, ECT cannot be performed if, at any time before or during ECT, the person regains capacity to give informed consent and does not consent to ECT. The medical treatment decision-maker may also withdraw consent at any time.

Treatment governance

Program management

Current scientific data, clinical knowledge and lived experience must inform all ECT practice. This ensures treatments are delivered in a safe and effective way. To this end, each designated mental health service must appoint a psychiatrist as ECT director and a senior registered nurse as ECT coordinator. The ECT team should also communicate with the person's treating team to ensure a multidisciplinary approach, together with lived experience peer support, in case the person needs input from other allied health professionals and peers.

Each service will have policy statements and related procedures defining the role and function of each member of the ECT team to ensure responsibilities are clear.

Both the ECT director and coordinator will sit on an interdisciplinary ECT committee whose purpose is to:

- develop and review policies and procedures
- monitor local performance
- resolve issues.

Other valuable members will include the consumer and carer lived experience advisors and an anaesthetist. The committee should sit within the health service's governance structure to ensure auditing and quality improvement activities are in line with local and national accreditation requirements.

Clinical ECT director

The director will have completed an ECT training course, maintain treatment currency and be familiar with the current scientific and clinical literature concerning ECT. The director will have overall clinical responsibility for the ECT suite and will exercise several functions including:

- ensuring junior medical staff are familiar with their duties relating to ECT
- checking that the psychiatrists who prescribe and/or administer ECT have completed an accredited training course
- maintaining a record of the psychiatrist's participation in ongoing training, peer review and quality improvement activities
- supervising staff performance to uphold appropriate levels of skill in carrying out ECT
- checking that psychiatrists administer at least 25 treatments each year
- chairing a weekly review with the ECT coordinator and as many psychiatrists as possible to optimise current treatments and promote clear communication between prescribing and administering doctors
- conducting quality improvement activities including audits of staff following this guideline.

Except in very small services, the ECT director should have dedicated time (usually one session a week) to complete these duties.

More information on credentialing and re-credentialing is in the RANZCP professional practice guide for administering ECT <https://www.ranzcp.org/clinical-guidelines-publications/clinical-guidelines-publications-library/electroconvulsive-therapy-professional-practice-guideline>.

ECT coordinator

This person will be a senior registered nurse who has completed an ECT training course and advanced life support training. The coordinator will manage the ECT suite including:

- coordinating nursing care in the suite during treatment sessions
- ensuring people receiving ECT and their families, carers or supporters are welcomed, made comfortable and provided with all necessary support before, during and after treatment, with access wherever possible with tailored ways to alleviate anxiety
- coordinating and training nursing staff including student nurses
- liaising with anaesthetic services
- ensuring appropriate staffing, equipment and supplies are available
- establishing regular checking, cleaning, sterilising and maintenance routines for the equipment
- ensuring the recording and reporting requirements for ECT are met
- conducting quality improvement activities
- maintaining a register of staff members' training in basic life support and in emergency and recovery room procedures where applicable.

To allow the ECT coordinator to focus on these tasks, the anaesthetist should always be supported by a credentialed anaesthetic nurse who has a working knowledge of the principles outlined in the Act. These principles include trauma-informed, recovery-oriented, family-inclusive and culturally safe care that supports least restrictive interventions, and the person is supported to make or participate in decision making regardless of where ECT is administered.

The ECT coordinator should ensure lived experience staff are available within the organisation to offer peer support to persons, family, carers and supporters.

Training and education

Policies and procedures

The ECT director should ensure written policies, procedures and standards are in place for performing ECT and that they are consistent with this guideline. These documents must be available to clinical staff and reviewed periodically. All clinical staff involved in ECT should be familiar with their contents.

ECT training course

The ECT coordinator and senior medical staff involved in carrying out ECT should have theoretical and practical knowledge of ECT and must therefore attend a formal training program. Nurses who take part in ECT should also attend a training program. The ECT director and coordinator should keep a register of the names of medical and nursing staff (respectively) who have formal training in ECT.

An ECT training course should include a minimum six hours of theory and three hours of practical instruction.

The **theoretical part** should include:

- relevant legislation and patients' rights
- capacity testing and consent procedures
- clinical indications and contraindications
- pre-treatment assessment and concomitant medications
- treatment techniques including ultra-brief pulse stimulation and unilateral electrode placement
- EEG monitoring and interpretation
- pre-medications, anaesthetics and muscle relaxants
- acute, continuation and maintenance ECT
- assessment and care of outpatients
- the care of 'at risk' people including those who are adolescent, pregnant, aged or medically compromised
- the professional responsibilities of team members.

Senior staff should be trained and competent in the 'principles of care'. These principles include trauma-informed, recovery-oriented, family-inclusive and culturally safe care that supports least restrictive interventions and decision making. Lived experience advisors should be involved in this training.

The **practical part** of the training should include:

- observing at least one ECT titration, one bilateral and one unilateral ECT

- familiarity with the ECT machine including setting pulse width and different energy levels.

The training course provider should keep a record of participants' attendance. Consent to being observed as part of a training program must be obtained verbally or in writing and documented.

It is up to the director of ECT to decide how to qualify psychiatrists returning to ECT practice after a period of absence. The director could consider:

- the length of absence from practice
- the psychiatrist's previous and current level of knowledge and skill.

Some psychiatrists will have to retrain or complete a refresher course. Others might attend the practical part or observe several treatments administered by the director.

Practitioners prescribing and administering ECT should keep their ECT skills and knowledge updated with the latest evidence-based advances via:

- regular ECT peer groups
- undertaking continuing professional development related to ECT (attending ECT conferences or workshops, reading journal articles)
- RANZCP-accredited refresher courses.

Basic life support and emergency training

All staff who take part in ECT should complete an approved course in basic life support and update their training every year. They must also have completed fire and evacuation training and manual handling education. The ECT coordinator must keep a register of training (and continued training).

Record keeping

ECT records must include as a minimum:

- the dose of anaesthetic and muscle relaxant drugs
- the stimulus pulse width, laterality and charge
- the seizure duration
- a complete EEG printout.

ECT documentation (including consent forms) must be easily identifiable within the larger clinical record to allow for easy communication within and between clinical teams.

Quality improvement

Members of the ECT service must take part in regular, relevant clinical development activity. This might include:

- attending an ECT forum
- getting involved with an ECT-related peer review group
- setting up weekly treatment review meetings
- quality audits
- consumer and carer satisfaction surveys
- reference groups.

Services must set up procedures to:

- inform consumers and carers of their right to make a complaint about the service
- record and investigate complaints
- respond constructively to complainants in a timely manner.

Chief Psychiatrist's quality and safety checks

The Chief Psychiatrist may conduct clinical practice audits, reviews or investigations to ensure the quality and safety of practices. Services must cooperate with these processes.

Reports to the Chief Psychiatrist

Treatment reports

Services must report ECT use to the Chief Psychiatrist. Electronically submitted information includes:

- the date, name, UR number, sex and age of ECT recipients
- the names of the doctors administering the anaesthetic and ECT
- treatment pulse width, laterality and stimulus intensity
- the type of consent (informed or otherwise)
- clinical outcome measures.

The authorised psychiatrist is responsible for submitting reports but may designate a staff member, preferably the ECT coordinator, to do this. Data will be submitted within a month of treatment.

The Chief Psychiatrist will review, and compile submitted data to:

- monitor trends in ECT use
- inform clinical practice guidelines
- identify potential problems or areas for improvement at specific services or across the sector.

Further information is included in the chief psychiatrist's directive: *Reporting requirements for electroconvulsive treatment (ECT) and neurosurgery to the chief psychiatrist* at https://www.health.vic.gov.au/chief-psychiatrist/electroconvulsive-treatment-guideline-mental-health-and-wellbeing-act-2022

Adverse events

A prescribed form must be used to notify the Chief Psychiatrist about adverse events directly related to ECT that:

- result in death (or a near miss), serious injury or serious illness
- require transfer to an emergency department or similar setting.

Other incidents and near misses will be reported to, and considered by, the service's own ECT committee and safety-monitoring bodies. The service must keep records of these discussions and agreed actions.

Further information can be found in the Serious Adverse Event Reporting Form at <https://www.health.vic.gov.au/chief-psychiatrist/electroconvulsive-treatment-guideline-mental-health-and-wellbeing-act-2022>

Resources and equipment

ECT premises

The guiding principle for any ECT service is to provide an environment that protects people's privacy, dignity and wellbeing while maintaining the standards required for safe and reliable treatment. Premises may be dedicated suites, theatre suites or multipurpose treatment suites.

Dedicated ECT suites

A dedicated ECT suite requires three separate rooms: a waiting room, a treatment room and a recovery room. A fourth room or area, to serve as a recovery lounge where food and beverages can be provided, is desirable, particularly where ECT is provided as a day procedure. People with disability should have suitable access to all areas. Toilet facilities should be close by.

Internally doors will link all rooms, and each room should have a door opening onto a corridor. Internal and external doorways must be wide enough to allow trolleys to pass through. Use tipping trolleys, not beds, in the treatment and recovery rooms.

All rooms should be big enough to accommodate the rate and number of people treated per session. The minimum spaces recommended in the department's 2004 *Design guidelines for hospital and day procedure centres* are:

- waiting room – 15 square metres
- treatment room – 15 square metres
- recovery room – 9 square metres per person
- recovery lounge – 15 square metres.

In services where the number of people receiving ECT is small, a separate waiting room is not mandatory.

In line with the Australian and New Zealand College of Anaesthetists 2012 *Professional Standard 55: Recommendations on minimum facilities for safe administration of anaesthesia in operating suites and other anaesthetising locations,* the treatment room should contain:

- a stainless-steel sink and drainer
- a scrub-up basin
- an oxygen supply
- an emergency oxygen supply
- suction
- emergency suction
- adequate lighting
- emergency lighting
- telephone/intercom.

Close to the treatment room should be:

- a set-up bench
- cupboards for storing sterile supplies, linen, instruments and equipment.

The room should have a separate, lockable but accessible area to store and prepare medication, and space for the emergency trolley. Adequate reserves of oxygen must be available in the treatment and recovery rooms. An emergency cylinder supply of oxygen must also be available.

The recovery room should include:

- a scrub-up basin
- an oxygen supply
- an emergency oxygen supply
- oximeters
- suction
- emergency suction
- adequate lighting
- emergency lighting
- a telephone/intercom.

Fire regulation plans must be in place for evacuating and caring for people in case of fire. All clinical staff should be familiar with these plans and procedures. For more information refer to Australian Standard 4083-2010: Planning for emergencies: health care facilities <https://store.standards.org.au/product/as-4083-2010>.

Although the treatment room will generally only be used to perform ECT, the waiting and recovery rooms may be used for other purposes. For example, the waiting room may be used as an interview room and the recovery area as a group room.

For people at very high risk of medical complications, ECT is best delivered in an operating theatre.

Multipurpose treatment/recovery suites

ECT may be performed in a multipurpose treatment/recovery suite – for example, a day procedure unit. The suite should be close to the inpatient unit to minimise journey times through public areas. The requirements for a multipurpose treatment/recovery suite are the same as for a dedicated suite.

People receiving treatment should be protected from unnecessary observation. At the same time, internal partitions or curtains should not obstruct necessary observation.

Operating suites

ECT may be performed in an operating theatre suite if privacy is assured and sessions are scheduled at times that meet clinical needs.

Equipment

ECT machines

The ECT machine must:

- be listed with the Therapeutic Goods Administration
- be able to deliver a pulse width of 0.3 msec
- permit a charge of up to 1,000 mC
- provide EEG monitoring and record the duration of seizures.

The machine must be kept in working order and be serviced at least once a year. The ECT electrodes should be visually checked weekly.

Anaesthetic and resuscitation equipment

Anaesthetics equipment, resuscitation equipment and emergency drug supplies must meet the professional standards (PS) specified in the following documents:

- *PS55 – Recommendations on minimum facilities for safe administration of anaesthesia in operating suites and other anaesthetising locations, 2012*
- *PS18 – Recommendation on monitoring during anaesthesia, 2013*
- *PS4 – Recommendations for the post-anaesthesia recovery room, 2006*
- *PS15 – Recommendations for the perioperative care of patients selected for day care surgery, 2010*
- *PS28 – Guidelines on infection control in anaesthesia, 2015*.

Emergency resuscitation equipment should be tested and checked weekly, ensuring expired supplies are removed and replaced.

Comprehensive registers must be kept of:

- six-monthly maintenance and servicing checks of anaesthetic and emergency equipment
- one-monthly checks and replacement of out-of-date anaesthetic and emergency drugs.

A consultant anaesthetist should review the anaesthetic and emergency drugs kept in the ECT suite every 12 months.

Infection control and servicing equipment

A documented infection control policy must be in place and periodically evaluated, consistent with AS/NZS 4187:2014: *Reprocessing of reusable medical devices in health service organisations.*

Equipment used to administer ECT must be appropriately serviced and maintained. A service register should include details of the date, the name of the service company and technician, the result of the check and any action taken.

An appropriate infection control practitioner, manufacturer or service provider must validate the sterilisers every year.

The service should set up regular equipment checking, cleaning, sterilising and maintenance routines.

Resources

Australian College of Operating Room Nurses, *Standards for perioperative nursing, 2018.*

Australian Standards. *AS 4083:2010: Planning for emergencies: health care facilities, 2010*. Available from: infostore.saiglobal.com.

Australian Standards. *AS/NZS 4187:2014: Reprocessing of reusable medical devices in health service organizations, 2014*. Available from: infostore.saiglobal.com.

Australian and New Zealand College of Anaesthetists. *Professional Standard 2: Statement on credentialing and defining the scope of clinical practice in anaesthesia, 2018*. Available from: www.anzca.edu.au.

Australian and New Zealand College of Anaesthetists. *Professional Standard 4: Statement on post anaesthesia recovery room, 2018.* Available from: www.anzca.edu.au.

Australian and New Zealand College of Anaesthetists. *Professional Standard 8: Statement on the assistant for the anaesthetist, 2016.* Available from: www.anzca.edu.au.

Australian and New Zealand College of Anaesthetists. *Professional Standard 15: Guidelines for the perioperative care of patients selected for day care surgery, 2018.* Available from: www.anzca.edu.au.

Australian and New Zealand College of Anaesthetists. *Professional Standard 18: Guidelines on monitoring during anaesthesia, 2017.* Available from: www.anzca.edu.au.

Australian and New Zealand College of Anaesthetists. *Professional Standard 28: Guidelines on infection control in anaesthesia, 2015.* Available from: www.anzca.edu.au.

Australian and New Zealand College of Anaesthetists. *Professional Standard 55: Recommendations on minimum facilities for safe administration of anaesthesia in operating suites and other anaesthetising locations, 2012*. Available from: www.anzca.edu.au.

Department of Human Services. *Design guidelines for hospital and day procedure centres, 2004*. Available from: www.healthdesign.com.au/vic.dghdp.

Royal Australian and New Zealand College of Psychiatrists. *Position Statement #74 Electroconvulsive therapy, 2014*. Available from: www.ranzcp.org.