Electroconvulsive treatment
Chief Psychiatrist’s guideline
Electroconvulsive treatment
Chief Psychiatrist’s guideline
When it was first published in 2015 this clinical guideline reflected changes in the regulation and practice of electroconvulsive treatment (ECT) in Victoria’s designated mental health services following passage of the Mental Health Act 2014. This landmark legislation set higher standards for: assessing people’s capacity to give informed consent to ECT; people’s need for accurate information about ECT and alternative treatments; the approval processes for ECT where capacity to consent is lacking; and providing ECT to people younger than 18 years of age. It gave much greater emphasis to people’s rights to participate in decisions about their own treatment, with support if necessary from carers, independent advocates and legal advisers.

The guideline was not intended to provide detailed, technical information about ECT’s mode of action, delivery and monitoring. This sort of material is covered in the training courses that must be completed by the psychiatrists and senior nurses who participate regularly in ECT practice. Instead, it aimed to communicate ‘best practice’ standards regarding: pre-treatment assessment; support to people and their carers before, during and after treatment; interactions with the Mental Health Tribunal; service governance requirements; and quality safeguards. There is some advice on stimulus dosing and the role of alternative treatment modalities including ultra-brief pulse ECT to help promote some uniformity of approaches across Victoria.

This 2019 revision was prompted by the passage of the Medical Treatment Planning and Decisions Act 2016 as it affects consent to ECT. It is now possible for guardians and medical treatment decision-makers to consent to ECT on behalf of people who lack capacity to give informed consent themselves but are not patients under the Mental Health Act. The guideline now provides direction about the processes to be followed in this situation, in both public and private mental health facilities.

Some other elements have been added, reinstated or amplified, including recommendations that:

- advance statements are checked for people’s preferences relating to 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 be 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
- anaesthetists be supported by anaesthetic nurses in all treatment settings
- all treatments be reviewed weekly by the ECT director, ECT coordinator and participating psychiatrists
- outcomes are mapped using formal cognitive and clinical outcome tools
- ECT machines must be able to deliver ultra-brief pulse stimulation.
I would like to thank the members of the Chief Psychiatrist’s ECT committee, ECT directors and coordinators, senior clinicians and consumer and carer representatives who contributed their time and expertise to this work.

I am confident that this manual will continue to serve as a valuable resource for clinicians and managers to guide local practice and ensure that ECT is delivered effectively and safely across the state.

Dr Neil Coventry
Chief Psychiatrist
April 2019
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword</td>
<td>iii</td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Purpose</td>
<td>1</td>
</tr>
<tr>
<td>Legal definitions</td>
<td>2</td>
</tr>
<tr>
<td>Clinical definitions</td>
<td>3</td>
</tr>
<tr>
<td><strong>Treatment principles and practice</strong></td>
<td>4</td>
</tr>
<tr>
<td>Preparing for ECT</td>
<td>4</td>
</tr>
<tr>
<td>Prescribing ECT</td>
<td>6</td>
</tr>
<tr>
<td>Administering ECT</td>
<td>6</td>
</tr>
<tr>
<td>Individualising ECT</td>
<td>8</td>
</tr>
<tr>
<td>Complex clinical situations</td>
<td>10</td>
</tr>
<tr>
<td>Monitoring clinical response</td>
<td>12</td>
</tr>
<tr>
<td>Outpatient ECT</td>
<td>12</td>
</tr>
<tr>
<td><strong>Mental Health Act 2014</strong></td>
<td>14</td>
</tr>
<tr>
<td>Adults</td>
<td>14</td>
</tr>
<tr>
<td>People under the age of 18 years</td>
<td>17</td>
</tr>
<tr>
<td>Consumers’ rights</td>
<td>19</td>
</tr>
<tr>
<td><strong>Medical Treatment Planning and Decisions Act 2016</strong></td>
<td>20</td>
</tr>
<tr>
<td>Treatment governance</td>
<td>22</td>
</tr>
<tr>
<td>Program management</td>
<td>22</td>
</tr>
<tr>
<td>Training and education</td>
<td>23</td>
</tr>
<tr>
<td>Record keeping</td>
<td>24</td>
</tr>
<tr>
<td>Quality improvement</td>
<td>24</td>
</tr>
<tr>
<td>Reports to the Chief Psychiatrist</td>
<td>25</td>
</tr>
<tr>
<td><strong>Resources and equipment</strong></td>
<td>26</td>
</tr>
<tr>
<td>ECT premises</td>
<td>26</td>
</tr>
<tr>
<td>Equipment</td>
<td>27</td>
</tr>
<tr>
<td><strong>Information resources</strong></td>
<td>29</td>
</tr>
</tbody>
</table>
**Introduction**

Electroconvulsive treatment (ECT) induces seizures for therapeutic purposes under the protection of general anaesthesia and muscle relaxation. It is most commonly prescribed for severe depression but is also used to treat mania, schizophrenia and catatonia.

Representations of ECT in popular culture have created a negative public impression, ignoring evidence-based advances in technology that allow treatments to be tailored 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. The Victorian *Mental Health Act 2014* contains detailed legislative provisions regulating consent to treatment for adults and young people and the processes to be followed when capacity to consent is lacking. The Act defines the elements of informed consent and strictly prescribes the requirements when ECT is performed without informed consent. These provisions are overseen by the Mental Health Tribunal, a regulatory authority independent of mental health service providers.

Legislation, guidelines, new technology and advances in clinical knowledge all combine to promote best practice standards so that ECT can be used appropriately, effectively and safely in a manner that respects consumers’ rights.

**Purpose**

The purpose of this guideline is to:

- provide guidance about the prescription and performance of ECT in Victorian designated mental health services
- 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 and parents
- collate information about the standards set by national agencies and medical colleges regarding the physical facilities, staffing levels and equipment required to deliver ECT safely
- describe the educational, quality improvement, reporting activities and governance arrangements that will ensure that treatment standards are enhanced.

**Terminology**

The term ‘consumer’ is used to refer to any person receiving mental health services. The term ‘patient’ is restricted to those whose treatment is prescribed under the Mental Health Act.

**Scope**

The Mental Health Act sets high standards concerning consumers’ rights to information and support before consenting to ECT. While the guideline focuses on involuntary treatment, it is expected that these rights be extended also to people receiving ECT on a voluntary basis. The clinical and technical advice presented here applies regardless of a person’s legal status.
Legal definitions

Advance care directive
A document created under the Medical Treatment Planning and Decisions Act 2016 that sets out a person’s binding instructions for medical (including mental health) treatment or the values that should be used to guide any treatment decisions to be made for the person in the event that they do not have decision-making capacity. An advance care directive has no effect while a person is a patient under the Mental Health Act.

Advance statement
A document that sets out a person’s preferences in relation to treatment in the event that the person becomes a patient under the Mental Health Act.

Authorised psychiatrist
A psychiatrist appointed for a designated mental health service under s. 150 of the Mental Health Act. The term also includes a delegate.

Carer
A person who provides care to another person with whom they are in a care relationship (see the Carers Recognition Act 2012).

Designated mental health service
A health service that may provide compulsory assessment and treatment to people in accordance with the Mental Health Act.

Medical treatment decision-maker
An individual nominated by a person to make medical (including mental health) treatment decisions in the event that the person lacks the capacity to make treatment decisions themselves. The term also refers to a guardian appointed by the Victorian Civil and Administrative Tribunal (VCAT) to make treatment decisions or, if no-one has been appointed, the first person in a statutory list of people who is reasonably available, willing and able to make a medical treatment decision on behalf of the person.

Nominated person
An individual nominated by a consumer to receive information and to support the consumer if they require compulsory mental health treatment.

Patient
A compulsory, security or forensic patient under the Mental Health Act.

Young person
A person under the age of 18 years.
Clinical definitions
Types of ECT

Acute ECT
A course encompassing two to three treatments weekly until symptoms remit.

Continuation ECT
An extension of treatment of up to six months immediately following 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
Ongoing treatment provided at regular intervals, for periods generally up to 12 months, to promote sustained symptomatic and functional improvement. Maintenance ECT may prove helpful on a longer term basis when the risk of relapse is known to be high or other treatments are ineffective.

Electrode placement

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 the right hemisphere only.

Pulse width

Brief pulse ECT
The electrical stimulation has square waves, usually about one millisecond apart.

Ultra-brief pulse ECT
The electrical stimulation has square waves less than 0.5 milliseconds apart.
Treatment principles and practice

The decision to prescribe ECT should be based on a thorough physical and psychological evaluation of each person, taking into account their present condition, past history, response to other treatments, and their views and preferences.

Preparing for ECT

Information and support

While clinicians see ECT as a valued and effective treatment option, some consumers and carers have concerns about its value, necessity and adverse effects.

Sensitivity is required when engaging in discussions about treatment. Possible adverse effects (including cognitive effects) should be discussed openly and fairly, preferably by the prescribing psychiatrist. It is desirable wherever possible to discuss the choice of treatment laterality, pulse width and other matters that touch on speed of improvement, the likely number of treatments and adverse effects.

Cultural and gender issues require careful consideration. For example, a history of trauma may affect a person's feelings of vulnerability regarding anaesthesia and ECT. Staff should ensure that ECT practice is gender-sensitive and culturally appropriate. Some women, for instance, may require one or more members of the ECT team to be female.

It is important to check with consumers, carers and nominated persons if an advance statement (Mental Health Act) or advance care directive (Medical Treatment Planning and Decisions Act) is in place in case it makes reference to the person's views on ECT. Where possible, these views must be taken into account when proposing and prescribing treatment. Any views on ECT must be communicated to the clinicians involved in delivering treatment to ensure that procedures are adapted to accommodate the person's concerns.

All consumers must be given the brochure, Electroconvulsive treatment: Statement of rights, regardless of their legal status. The information contained in the brochure must be explained in a way that maximises comprehension, and all relevant questions must be answered. The brochure may be accompanied by 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.

Visits to the ECT treatment area are often useful in allaying consumers' concerns in the time before treatment.

It is important to check with consumers about the steps that might help relieve their anxiety while waiting for treatment. Possible strategies include a sensory tool box, favourite music (via an electronic device with headphones if considered safe) and reading materials. The waiting area should be suitably spacious and attractive.
Frequent consultation between consumers and nursing and medical staff is essential before and during a course of ECT to deal with any issues or questions as they arise. All staff associated with ECT should be trained and supervised to communicate with sensitivity regarding its use, within their scope of practice. Consistency of information and advice is important.

Training in communication is critical for non-psychiatric staff members who work in multi-purpose treatment suites and operating suites (including clerical staff and managers) and who may not have regular experience in administering ECT or responding to people with mental illness. It is imperative that they speak courteously and respectfully to those receiving ECT, that they observe the person’s need for privacy and dignity, and that they allow adequate time for recovery from treatment.

**Carers**

Carers should be consulted about the proposed use of ECT, provided the consumer consents. For people whose treatment is regulated under the Mental Health Act, carers may be consulted without the person’s consent provided the treatment decision will directly affect the carer and the care relationship.

Carers can provide useful information on the person’s response to previous courses of ECT and are ideally placed to note improvements and adverse effects (especially cognitive effects) as treatment proceeds.

Carers (where appropriate) should also be given the statement of rights brochure and may play a useful role in communicating its contents to consumers. They should be invited to visit the ECT treatment area before the person begins treatment and to sit with the person while waiting for treatment. Some might wish to be present while treatment is delivered.

**Medical assessment**

An appropriate medical history and physical examination must be conducted prior to treatment so that physical illnesses that might compromise safety can be properly investigated and treated. While this is the primary 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 appropriately to changes in mental or physical status.

A decision to proceed with ECT entails balancing risks against benefits. Liaison between psychiatric, medical and anaesthetic clinicians is critical, and further investigations will often be required before treating individuals with medical conditions that place them at special 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

All medications, including those that either raise or lower the seizure threshold, must be reviewed by the prescribing psychiatrist prior to ECT. Benzodiazepines and anticonvulsants should be stopped wherever possible. Lithium carbonate has been associated with post-ECT confusion and should be stopped or at least reduced in dose.

Prescribing ECT

Responsibilities of the prescribing psychiatrist

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

- the ECT dose (or dosing strategy), laterality and pulse width are clearly entered on the prescription form
- instructions concerning medications to be administered prior to ECT are communicated in writing to nursing staff
- responses to acute treatments are monitored individually and the prescription adjusted if required to maximise benefits and minimise adverse effects.

Administering ECT

Responsibilities of the administering psychiatrist

In addition to supporting the person receiving ECT, answering questions and providing advice as required, this practitioner must ensure that:

- the person’s identification has been confirmed using self-reported identity and their wrist band
- the person’s legal status is known and aligns with the consent form
- the informed consent form or Mental Health Tribunal approval (whichever is relevant) is valid
- approved treatment dates are current
- the correct dose and type of ECT to be administered are clearly identified
- the motor and EEG seizure parameters are recorded
- the prescribing psychiatrist or delegate is informed of any urgent issues that will affect care following the person’s return to the ward and on subsequent treatments.

If the prescribing psychiatrist is unavailable, the administering psychiatrist must determine what treatment specifications are required on the day, but this should never become usual practice.

Medical staff

At least two registered medical practitioners must be present at all times 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.
The other medical practitioner must be a specialist anaesthetist or, in the absence of a specialist, a registered medical practitioner accorded privileges in anaesthesia at the ECT premises in accordance with Australian and New Zealand College of Anaesthetists (ANZCA) Professional Standard 2: Credentialing and defining the scope of clinical practice in anaesthesia, 2018. The anaesthetist should have training and experience in anaesthesia for ECT. Where anaesthetic registrars administer the anaesthetic, adequate supervision and support must be provided by a specialist anaesthetist.

**Nursing staff**

All nursing staff should have the necessary training and experience to enable them to perform the various tasks required in the ECT suite. In addition to the ECT coordinator, who should be in attendance at each treatment session, there should be a team of nurses who regularly work in the ECT suite for continuity and to develop and maintain clinical skills. It is highly desirable that these nurses undertake an ECT training course.

An anaesthetic nurse is to provide assistance to the anaesthetist in accordance with ANZCA Professional Standard 8: Statement on the assistant for the anaesthetist (2016). This nurse should not be the ECT coordinator. The coordinator should be free to support consumers, communicate with the psychiatrist, ensure that treatments progress correctly, and attend to documentation requirements.

Nursing staff numbers required to ensure adequate standards of practice will otherwise 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 provide consumers with appropriate physical and psychological support
- the ECT coordinator and a specialist anaesthetics nurse in the ECT suite during treatment
- two nurses in the recovery area, both of whom should have completed a health service competency in post-anaesthetic care and attend an annual refresher.

In addition to 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 and carers. Such interactions offer the opportunity to allay anxieties about ECT, answer questions, clarify misconceptions and encourage the expression of concerns or special needs.

**Privacy**

ECT must be performed in a way that respects privacy, dignity and confidentiality. Staff should be particularly mindful of privacy issues in multi-purpose treatment suites. Consent is required for nursing or medical students to observe treatments, and students in attendance must be supervised.
Bodily restraint

The Mental Health Act regulates the use of bodily restraint (physical and mechanical) in designated mental health services. Restraint may only be applied to prevent imminent and serious harm to the person or another individual or to administer treatment in situations where every reasonable and less restrictive option has been tried or considered and found unsuitable.

Only rarely should bodily restraint be applied prior to ECT and only after a discussion with the treating psychiatrist or the service’s clinical director and other key personnel. Alternative approaches to pre-treatment agitation include the prophylactic administration of a medication that reduces anxiety without adversely affecting the seizure threshold (for example, a neuroleptic or non-benzodiazepine sedative).

Individualising ECT

While the following treatment parameters are subject to clinical judgement, they should be decided in consultation with the consumer and, where appropriate, the carer. If the consumer is giving informed consent, they must be given sufficient information and support to make a decision about each matter. If a person is unable to give informed consent, the prescribing psychiatrist must consider the views and preferences of the person regarding ECT and the reasons for those views and preferences.

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 times 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 to bitemporal placement.

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 the occurrence of cognitive side effects. Increasing the frequency of treatment beyond three times weekly increases the degree of cognitive impairment and has not been shown to speed recovery.

Number of acute treatments

The number of treatments prescribed should be reviewed on a continuing basis. Treatments may be prescribed one by one if required. One course may follow another if clinically indicated, provided that informed consent or the approval of the Mental Health Tribunal is granted (whichever is relevant).

Where more than two consecutive acute courses of ECT are considered, there should be a comprehensive review of the treatment plan, coupled with a second opinion, to ensure that all clinical and psychosocial factors have been explored and all treatment options considered.
Anaesthesia

The anaesthetist will choose induction agents and anaesthetic agents after a discussion (where indicated) with the treating psychiatrist. Standard induction agents, for example propofol, can be augmented by opioids including alfentanil or remifentanil to mitigate propofol’s anticonvulsant properties. This reduces the electrical energy needed to stimulate a seizure and limits cognitive side effects. Augmentation should be considered when:

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

A record must be kept of anaesthetic and relaxant agents given and of any problems and complications that arise.

Pre-stimulus ventilation that is sufficient 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. This should be done once the person is anaesthetised.

Stimulus dosing

Seizure threshold is the minimum stimulus dose at which a bilateral generalised seizure is elicited. Threshold depends on the type of stimulus used and other factors including the person’s age and sex and concomitant medication. It typically rises as a course progresses.

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

A number of stimulus dosing protocols have been published in ECT texts. The selected protocol should be displayed prominently in the treatment area and followed closely by the administering psychiatrist.

Seizure threshold estimation

Seizure threshold is determined in the first session via a series of stimulations of increasing intensity up to a maximum of four per session. If the threshold is not established after three stimulations, the protocol should specify the final stimulus that will prove 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.
Re-stimulation during the ECT course
If in subsequent sessions a seizure is not elicited, or is judged to be inadequate, another stimulus may be applied with a higher charge after a delay of 90 seconds, provided satisfactory anaesthesia and muscle relaxation are maintained. Charge levels will be determined by the dosing protocol.

Determining seizure adequacy
There is an imperfect correlation between clinical response and seizure parameters. However, it is generally desirable that motor seizures last for 20 seconds (EEG seizures last longer) and have reasonable amplitude and postictal suppression.

Prolonged seizures, lasting longer than 120 seconds, should be terminated using a further bolus of general anaesthetic or midazolam.

Review of the stimulus dose
The stimulus dose should be reviewed after each acute treatment on the basis of the electrical and clinical response. An increase in dose may be indicated if:

- the clinical response is poor
- motor seizures are either too brief or too long (a long, low amplitude seizure is probably too close to the threshold to be therapeutic).

Since the seizure threshold rises during a course of treatment, some increase in dose is to be expected.

Recovery
During recovery from the anaesthetic, nursing staff should monitor the person’s airway, pulse and blood pressure until it is stable. There should be a continuous nursing presence until the person’s becomes reoriented. The anaesthetist must not leave the ECT area until all treated persons are breathing independently.

Agitation immediately after emerging from the general anaesthetic may require immediate action in the form of an intravenous bolus of anaesthetic agent or another sedative at the discretion of the anaesthetist.

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, and so people with established ischaemic heart disease require careful observation. Recent myocardial infarction, unstable angina, poorly controlled congestive heart failure and significant arrhythmias increase risk further and warrant review by a physician prior to treatment. The anaesthetist must also be briefed beforehand.

Helpful preparatory steps might 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.
Care must be taken when severe depression is accompanied by a refusal to eat and drink. Subcutaneous fluids are feasible on most psychiatric inpatient units, supplemented with intravenous fluids immediately after treatment via the anaesthetic cannula. The risks and benefits of ECT must be weighed carefully before every treatment. Daily medical reviews should be in place over weekends and public holidays.

With respect to specific medical conditions:

- Cardiac pacemakers should be discussed beforehand with a cardiologist who may advise attendance by a cardiac technologist.
- Oesophageal reflux requires prophylactic management, extending in severe cases to intubation prior to stimulation.
- Marked osteoporosis warrants careful muscle relaxation to avoid vertebral and other fractures.
- ECT should be avoided in the month after a stroke and given only after clearance by a neurologist.

**Cognitive impairment**

Some older people are cognitively impaired, even prior to the onset of their present mental disorder. Checking their cognitive status requires an informant history, pretreatment cognitive testing where tolerated and regular retesting thereafter. Ultra-brief pulse unilateral ECT is associated with 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 dementia is clearly present, the high risk of prolonged confusion post-ECT makes it important to request an opinion from an old age psychiatrist.

Most consumers and carers are concerned about ECT’s effects on cognition and, in particular, memory. These effects are most pronounced with high-energy, bitemporal ECT, which should be avoided wherever possible. Given widespread concerns about cognition, formal assessments should be conducted prior to treatment, after every third treatment and at the end of the course. Where testing is not tolerated, a note to this effect should be made in the clinical record. A brief standardised test is preferred for reasons of consistency and to track changes over time. Ideally, scores on whatever test is selected will rise in line with the improvement in mental state. A reduction in score despite an improved mental state should prompt consideration of treatment frequency, laterality and dosing.

**Pregnancy**

ECT is sometimes the safest treatment of serious mental disorders during pregnancy. Risks include fetal bradyarrhythmias and hypoxia, maternal oesophageal reflux and premature labour induction. Treatments after the 20th week of pregnancy should therefore be administered in a hospital with obstetric support and access to a perinatal psychiatrist.
Monitoring clinical response

Clinical response should be recorded by the prescribing psychiatrist at least weekly with respect to symptomatic response and adverse effects. If there is no evidence of improvement, all aspects of the treatment regimen must be reconsidered.

Good communication between the prescribing and administering psychiatrists, and the ECT coordinator, is critical. This is best achieved via a weekly meeting attended by the ECT director, ECT coordinator and the treating psychiatrists to review all current courses, with special reference to:

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

To facilitate this review, all aspects of treatment (including anaesthesia) should be recorded in a single document. If prescribing psychiatrists cannot attend the weekly meeting, any concerns or suggestions about prescriptions should be fed back to them to allow them to discharge their responsibility to optimise treatment. Where circumstances make it impracticable for prescribing doctors to adjust the ECT prescription, the ECT director or delegate may amend the treatment details.

Outcome measures

The Client Management Interface (CMI) includes a brief tool, the Clinical Global Impressions Scale (CGI), to confirm that treatment is helping. The CGI should be completed by a clinician who is in regular contact with the consumer (usually the treating psychiatrist or trainee) after every third treatment, and after the last acute or continuing treatment.

The Hamilton Depression Rating Scale, which is used widely in ECT research, collates readily available information about individuals’ depressive signs and symptoms. It takes little extra time to complete and is copyright-free.

Outcome measures should be considered in weekly review meetings and monitored 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 particular 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. Matters that must be evaluated when considering outpatient treatment include:

- the nature and seriousness of the person’s mental illness
- medical conditions that present significant risk
- the person’s ability to comply with fasting, medication adjustments, time-keeping and other restrictions
- the support available from carers before and after treatments
- available transport.
Arrangements for treatment should be communicated in writing to consumers and also to carers (where appropriate). A written form should stipulate the:

- treatment date and time
- fasting and medication requirements
- advice concerning clothing and hair care
- post-treatment care
- transport requirements
- escort arrangements
- advice regarding inter-current physical illness.

The case manager or psychiatrist must ensure the clinical record can be accessed in the ECT suite before the treatment is administered.

The treatment plan should specify the interval between treating psychiatrist reviews. The treating psychiatrist requires access to the ECT record to make adjustments to the prescription.

For people receiving outpatient ECT on a voluntary basis, the need for ongoing treatment should be reviewed in depth with the consumer and carers at least every three months.

**Transport arrangements and after-care**

A responsible adult must escort consumers to and from the suite and remain with them overnight.

The anaesthetist and/or ECT coordinator will make the decision about when the person is safe to leave the ECT suite. It is recommended that routine observations then continue for a minimum of two hours post-ECT. Exceptions to this recommendation should be recorded formally in the treatment plan.

All people and their carers (where appropriate) must have access to a telephone at home and be given a 24/7 number to call in the event of any problem.

**Consumer comfort**

Toileting facilities must be readily available before and after treatment. Food and drink must be made available after treatment and before discharge. There should also be a private area in the event that a change in a person's mental or physical state warrants additional assessment and support.

**Risk management**

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

Consumers and carers (where appropriate) must have a written emergency management plan in the event of a deterioration in physical health and mental state.
Mental Health Act 2014

The Mental Health Act provides a framework to ensure people with a mental disorder receive care and treatment appropriate to their needs, with the least possible restrictions to their rights and dignity.

Adults
Consumers over the age of 18 years
An adult over the age of 18 years who is receiving mental health care on a voluntary basis may give informed consent to ECT. While the provision of ECT in this situation is not governed by the Act, it is recommended for the purposes of consistency that clinicians follow the same practices for obtaining informed consent as those set out in the Act.

Patients over the age of 18 years
Patients may give informed consent to ECT if they have the capacity to do so. If they do not have capacity to give informed consent, ECT may only be performed with the approval of the Mental Health Tribunal following an application by an authorised psychiatrist (see below).

Capacity to give informed consent
Consumers are presumed to have capacity unless careful assessment shows that this is not the case. With respect to ECT, a person has the capacity to give informed consent if they:

- can understand the information they are given about the decision
- are able to remember this information
- are able to use or weigh the information
- are able to communicate their decision by any means.

The judgement about capacity must be fair and reasonable and accord 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. It is not required that people demonstrate a deeper understanding of the issues than applies in the community generally.

There must be an entry in the clinical file describing what factors led the prescribing psychiatrist to conclude that the person did or did not have capacity to make a decision 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 receiving treatment on a voluntary basis, an application must be lodged with the Mental Health Tribunal if the course is to continue.
**Informed consent**

To provide informed consent, the person must be given adequate information to make an informed decision about ECT including:

- its purpose
- the type, method and likely duration of the ECT
- its advantages and disadvantages
- its associated discomfort, risks and common or expected side effects
- any beneficial alternative treatments that are reasonably available and their associated advantages and disadvantages
- any other relevant information that is likely to influence their decision
- the statement of rights booklet.

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

- a reasonable period of time to consider the matters involved in the decision
- an opportunity to discuss matters with the psychiatrist who is proposing the treatment
- an opportunity to seek the support or advice of family members and carers, independent advocates and legal advisers.

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

Informed consent for ECT and the associated anaesthesia must be given in writing using the *Informed consent to electroconvulsive therapy* (MHA 131) form. The person may consent to one treatment or to a course of up to 12 treatments over a period up to six months.

**Right to withdraw consent**

People who have consented to ECT have the right to withdraw consent at any stage before or during the treatment course.

Those who regain capacity after the Mental Health Tribunal has approved ECT for them may withdraw their consent to treatment at any stage before or during the course.

**Application for approval of ECT for adults**

If an authorised psychiatrist believes that an adult 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 for approval to perform a course of ECT using Form MHA 132 (*Application for ECT*).

In determining if there is no less restrictive treatment, the authorised psychiatrist must, to the extent that is reasonable in the circumstances, have regard to the following:

- the person’s views and preferences (including the views expressed in an advance statement or values directive) in relation to ECT and any beneficial alternative treatments that are reasonably available, and the reasons for those views or preferences, including any recovery outcomes the person wishes to achieve
- the views of a nominated person and guardian
- the views of a carer, if the decision to perform ECT will directly affect the carer and the care relationship
- the likely consequences for the patient if ECT is not performed
- any second psychiatric opinion obtained by the person and given to the authorised psychiatrist.

If ECT is needed urgently to preserve life, prevent serious damage to health or prevent significant pain or distress, the authorised psychiatrist may request that a tribunal hearing be listed urgently. Since urgent hearings limit the person’s ability to seek support and advice, including legal advice and representation, they must be requested only in exceptional circumstances.

After receiving an application, the Tribunal will schedule a hearing and send a notice of hearing to the psychiatrist, the patient, nominated person, guardian and carer.

The psychiatrist must prepare a written report for the Tribunal using Form MHT 6 (Electroconvulsive treatment report – adult patients). The patient is to be given access to a copy of the report and any other documents relating to the hearing at least 48 hours beforehand.

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.

The Tribunal must be satisfied the patient does not have capacity to give informed consent to ECT and that there is no less restrictive way to provide treatment. The Tribunal will consider a range of factors including the patient’s recovery goals and preferences and the views of significant others including the nominated person and carers. If it grants the application, 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). More information about the Tribunal’s procedures and forms is available on the Tribunal’s website <www.mht.vic.gov.au>.

The authorised psychiatrist may apply to the Tribunal for approval for another course of ECT if clinically indicated during or after the first course. If another course is approved, this automatically ends the previous one.
People under the age of 18 years

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

All young people are presumed to have capacity to give informed consent to ECT unless it is demonstrated that they lack the capacity to do so.

Application for approval of ECT for young people

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

- has given informed consent in writing, or
- does not have capacity to give informed consent and a person with the legal authority to consent to the treatment, such as a parent, has given informed consent in writing, and the psychiatrist is satisfied there is no less restrictive way for treatment to be provided.

In determining if there is no less restrictive treatment, the psychiatrist must, to the extent that is reasonable in the circumstances, have regard to the following:

- the young person’s views and preferences (including the views and preferences expressed in an advance statement) in relation to ECT and any beneficial alternative treatments that are reasonably available and the reasons for those views and preferences, including any recovery outcomes the young person would like to achieve
- the views of a nominated person
- the views of a carer (if the decision to perform ECT will directly affect the carer and the care relationship)
- the views of a parent if the young person is under the age of 16 years
- the views of a person who has legal authority to consent to the treatment for the young person
- the views of the Secretary to the Department of Health and Human Services if the young person is the subject of a family reunification order or a care by Secretary order
- the likely consequences for the young person if ECT is not performed
- any psychiatric opinion given by another psychiatrist that has been given to the psychiatrist.

The psychiatrist must prepare a written report for the Tribunal using Form MHT 7 (Electroconvulsive treatment report – young person (patients)) or Form MHT 8 (Electroconvulsive treatment report – young persons (voluntary)).

After receiving an application, the Tribunal will schedule a hearing and send a notice of hearing to all the parties. All other requirements are the same as those applying to a hearing for adult patients – for example, the young person’s right to access documents at least 48 hours before the hearing.
The Tribunal will consider the views and preferences of the young person, and relevant others, in deciding whether to approve ECT. It 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 concerning treatment but must be informed in writing and in advance of plans to administer ECT to a young person in a designated mental health service. The notice should include:

- the young person’s name, date of birth and age at the time of the proposed commencement of ECT
- the name of the designated mental health service
- the names and contact details of the prescribing psychiatrist at the proposed treatment site
- the presenting history, clinical presentation, family history, mental status examination, diagnostic formulation, relevant medical investigations, treatment history and response to previous treatments
- the parent’s, carer’s or guardian’s consent to ECT (with preferably the views of both parents)
- the opinion of another child and adolescent psychiatrist regarding the necessity for ECT
- the opinion of the director of ECT at the proposed treatment site or an adult psychiatrist experienced in ECT regarding its necessity.

The Chief Psychiatrist is required to monitor outcomes in this age group. To facilitate this, service providers are required to complete a number of outcome measures at specified intervals before and after ECT is administered. The details and timing of these measures will be communicated separately.
Consumers’ rights
Statement of rights booklet

It is the responsibility of the prescribing psychiatrist to ensure that every person prescribed ECT, or likely to be prescribed ECT, is given a copy of the booklet Electroconvulsive treatment: Statement of rights, which sets out their rights under the Act. The booklet is available from the department’s website <www2.health.vic.gov.au/mental-health/practice-and-service-quality/mental-health-act-2014-handbook/safeguards/statement-of-rights>.

Questions put by consumers, carers and nominated persons must be answered as clearly and completely as possible, preferably by the prescribing psychiatrist. If English is not the person’s first language, it may be necessary to provide an interpreter to ensure the key details are understood.

If the person has difficulty understanding the booklet’s contents, reasonable attempts must be made to summarise the information verbally at a time and place when comprehension is likely to be optimal. Where necessary, other practical supports should be considered to assist a person to understand and exercise their rights. Organisations like the Independent Mental Health Advocacy Service or Victoria Legal Aid may be helpful.

A number of other people must also be given the statement of rights: the nominated person, guardian and carer if the decision to perform ECT will affect the carer and the care relationship; the parent of a person aged under 16; and the Secretary to the Department of Health and Human Services if the person is the subject of a family reunification order or a care by Secretary order. The purpose is to enable these people to support the consumer and advocate on their behalf if required.

Confidentiality

While the Act prohibits any staff member of a designated mental health service provider from disclosing health information about people who are or have been in receipt of mental health services, it permits the disclosure of information in particular circumstances:

- the person to whom the information relates gives consent
- the disclosure is required by another health service provider to provide a necessary health service to the person
- the person is a patient and the disclosure is reasonably required by a 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 is made to the person’s preferences including those expressed in any advance statement.
Medical Treatment Planning and Decisions Act 2016

The Medical Treatment Planning and Decisions Act creates an alternative consent pathway for adults who lack the capacity to give informed consent to ECT and are not patients under the Mental Health Act. This Act permits ECT to be administered on a non-compulsory basis, with the approval of the Mental Health Tribunal.

A psychiatrist may make an application to the Mental Health Tribunal using Form MHA 132A (Application for electroconvulsive treatment – Voluntary adult without capacity to consent) if the psychiatrist is satisfied that:

- the person does not have capacity to give informed consent to ECT
- there is no less restrictive way for the person to be treated
- the person has an instructional directive (within the meaning of this Act) giving informed consent to ECT or the person’s medical treatment decision-maker gives informed consent in writing to ECT.

In determining if there is no less restrictive treatment, the psychiatrist must, to the extent that is reasonable in the circumstances, have regard to:

- the person’s views and preferences about ECT and any beneficial alternative treatments that are reasonably available and the reasons for those views and preferences, including any recovery outcomes the person would like to achieve
- any values directive of the person
- any views of the person’s medical treatment decision-maker or support person
- the views of the person’s carer if the psychiatrist is satisfied that the decision to perform ECT will directly affect the carer and the care relationship
- the likely consequences for the person if ECT is not performed
- any psychiatric opinion given by another psychiatrist that has been given to the psychiatrist making the application.

An instructional directive (which differs from an advance statement under the Mental Health Act) is made while the person has capacity and is determinative (that is, consent is not also required by a medical treatment decision-maker). For an instructional directive to be valid it must be witnessed by two adults, one of whom must be a medical practitioner. The witnesses must certify that the person appeared to have decision-making capacity, appeared to freely sign the document and understood the effect of each statement within the directive.

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

If no appointment has been made, a medical treatment decision-maker can be either:

- a guardian appointed by VCAT
- the first of the following with a close and enduring relationship with the person: the spouse or domestic partner; the primary carer; the oldest adult child; the oldest parent; or the oldest adult sibling.
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.

For more details, see the department’s website <https://www2.health.vic.gov.au/about/key-staff/chief-psychiatrist/chief-psychiatrist-guidelines/advisory-notice>.

The Tribunal must grant the psychiatrist’s application for approval to administer ECT if: it is satisfied the person lacks capacity to give informed consent to ECT; there is no less restrictive treatment; and either the person has completed a valid instructional directive or the medical treatment decision-maker (appointed in advance or otherwise) has given informed consent in writing using Form MHA 131A (Informed consent to ECT by medical treatment decision maker). The form is available from the department’s website <https://www2.health.vic.gov.au/about/publications/formsandtemplates/informed-consent-to-ECT-medical-treatment-decision-maker-mha131A>.

Because the person does not become a compulsory patient, this consent pathway is applicable in public and private settings. The Tribunal will schedule a hearing in a private hospital on receipt of an application. All usual requirements apply, such as notices of hearing, access to documents and the right of the person to attend the hearing.

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 becomes inoperative.

Even if the Tribunal approves treatment, ECT cannot be performed if, at any time before or during the course of ECT, the person recovers capacity to give informed consent and refuses ECT. The medical treatment decision-maker may also withdraw consent at any time.

It would be unwise to proceed with this consent pathway if there is reason to believe that the person’s relationship with a family member or carer will be adversely affected as a result.
Treatment governance

Program management

It is imperative that ECT practice be informed by current scientific and clinical knowledge to ensure that treatments are delivered in a safe, effective manner. To this end, each designated mental health service is required to appoint a psychiatrist as its ECT director and a senior registered nurse as an ECT coordinator.

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

Both the ECT director and coordinator will sit on an ECT committee whose task it is to develop and review policies and procedures, monitor local performance and revolve issues. Other useful members will include a consumer representative and anaesthetist. The committee should sit within the health service’s governance structure to ensure that 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 exercise a number of functions including:

- ensuring that 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 doctors’ participation in ongoing training, peer review and quality improvement activities
- supervising doctors’ performance to uphold appropriate levels of skill in the performance of 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 appropriate quality improvement activities including audits of adherence to these guidelines.

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

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 be responsible for managing the ECT suite including:

- providing and coordinating nursing care in the ECT suite during treatment sessions
- ensuring that people receiving ECT and their carers are welcomed, made comfortable and provided with all necessary support before, during and after treatment, with access wherever possible with individually tailored means to alleviate anxiety
• coordinating and training nursing staff including student nurses
• liaising with anaesthetic services
• ensuring that appropriate staffing, equipment and supplies are available
• establishing regular checking, cleaning, sterilising and maintenance routines for the care of equipment
• ensuring that the recording and reporting requirements for ECT are met
• conducting appropriate quality improvement activities
• maintaining a register of staff members’ training in basic life support, 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 credentialled anaesthetic nurse, regardless of where ECT is administered.

**Training and education**

**Policies and procedures**

The ECT director should ensure that written policies, procedures and standards for performing ECT are maintained and are consistent with this Chief Psychiatrist’s guideline. These documents must be made 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 administering ECT are expected to have theoretical and practical knowledge of ECT and must therefore attend a formal training program. Nurses who participate in ECT are also encouraged to attend a training program. A register of the names of medical and nursing staff who have received formal training in the practice of ECT should be maintained by the ECT director and coordinator respectively.

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

The theoretical component 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’ individuals including those who are adolescent, pregnant, aged or medically compromised
• the professional responsibilities of team members.
The practical component should include observation of at least one ECT titration, one bilateral ECT, one unilateral ECT and familiarity with the ECT machine. The training course provider should maintain a record of participants’ attendance. Consent to being observed as part of a training program must be obtained verbally or in writing and documented.

The ECT director may exercise judgement regarding the steps required of psychiatrists returning to ECT practice after a period of absence. Matters to be considered include the length of absence from practice and the psychiatrist’s previous and current level of knowledge and skill. Some psychiatrists must complete retraining. Others might attend the practical component or observe a number of treatments administered by the director.

**Basic life support and emergency training**

All staff members who participate in ECT should undertake instruction in basic life support and update their training at least annually. They must also have undertaken fire and evacuation training and manual handling education. The ECT coordinator must maintain a register of training (and continued training).

**Record keeping**

ECT treatment 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 participate in some regular, relevant clinical development activity – for example, an ECT forum, an ECT-related peer review group, a weekly treatment review meeting, a quality audit or a consumer and carer satisfaction survey.

Services must establish procedures to inform consumers and carers of their right to make a complaint about ECT, to record and investigate complaints, and to 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 that practices are of adequate quality and safety. Services are obligated to cooperate with these processes.
Reports to the Chief Psychiatrist

Treatment reports
Services must report all ECT use to the Chief Psychiatrist. Submitted electronically, the information must include:

- the date, name, UR number, sex and age of each person who receives ECT
- the names of the doctors administering the anaesthetic and ECT
- the treatment pulse width, laterality and stimulus intensity
- the type of consent
- clinical outcome measures.

The authorised psychiatrist is responsible for ensuring that reports are submitted but may designate a staff member, preferably the ECT coordinator, to undertake this function. Data will be returned within a month of treatment.

The Chief Psychiatrist will review and compile submitted data to:

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

Adverse events
The Chief Psychiatrist must be notified via a prescribed form of adverse events directly related to ECT that either:

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

Other incidents and near-misses must be reported to, and considered by, the service’s own ECT committee and safety-monitoring bodies. Records must be kept of these discussions and agreed actions.
Resources and equipment

ECT premises

The guiding principle for any ECT service is to provide an environment that protects people’s privacy and dignity while maintaining the standards required for treatment to occur reliably and safely. Premises may be dedicated suites, theatre suites or multi-purpose treatment suites.

Dedicated ECT suite

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. There should be suitable access to all areas by people with a disability. Access to toilet facilities is required.

All rooms will be linked internally by doors, 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. Tipping trolleys, not beds, should be used in the treatment and recovery rooms.

All rooms should be of sufficient size to accommodate the rate and number of people treated per session. The minimum dimensions recommended in the Department of Health and Human Services Design guidelines for hospital and day procedure centres (2004) are as follows:

- waiting room – 15 square metres
- treatment room – 24–36 square metres
- recovery room – nine square metres per person
- recovery lounge – 15 square metres.

In services where the number of people receiving ECT is small, the requirement for a separate waiting room may be waived.

The treatment room should contain a stainless steel sink and drainer, scrub-up basin, oxygen supply, emergency oxygen supply, suction, emergency suction, adequate lighting, emergency lighting and telephone/intercom (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).

A set-up bench and cupboards for storing sterile supplies, linen, instruments and equipment should be provided in or adjacent to the treatment room. The room should also have provision for 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 be available.
The **recovery room** should include a scrub-up basin, oxygen supply, emergency supply, oximeters, suction, emergency suction, adequate lighting, emergency lighting and a telephone/intercom.

Fire regulation plans must exist for the evacuation and care of people in the event of fire. All clinical staff should be familiar with the plans and procedures. For more information see Australian Standard AS 4083:2010: *Planning for emergencies: health care facilities*.

While 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 administered in an operating theatre.

**Multi-purpose treatment/recovery suite**
ECT may be performed in a multi-purpose treatment/recovery suite such as a day procedure unit. The suite should preferably be within reasonable proximity to the inpatient unit to minimise journey times through public areas. The requirements for a multi-purpose treatment/recovery suite are the same as for a dedicated suite.

There should be protection during treatments from unnecessary observation by others. At the same time, internal partitions or curtains should not obstruct necessary observation.

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

**Equipment**

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

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

Complete and 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 review of anaesthetic and emergency drugs kept in the ECT suite should be conducted by a consultant anaesthetist every 12 months.

Checking, cleaning, infection control and servicing equipment

A documented infection control policy must be implemented and subjected to periodic evaluation consistent with the prescribed Australian Standard: AS/NZS 4187:2004: Reprocessing of reusable medical devices in health service organizations (2014).

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

Annual validation of sterilisers must be conducted by an appropriate infection control practitioner, manufacturer or service provider.

Regular equipment checking, cleaning, sterilising and maintenance routines should be established.
Information resources


