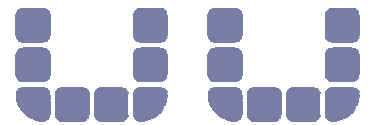


The E.C.T. Guide:

The Chief Psychiatrist's Guidelines for the use of Electroconvulsive Therapy in Western Australia 2006

Delivering a Healthy WA

Healthy Workforce • Healthy Hospitals • Healthy Partnerships • Healthy Communities • Healthy Resources • Healthy Leadership



FOREWORD

Under the *Mental Health Act 1996* (MHA) the Chief Psychiatrist has responsibilities in relation to monitoring the standards of psychiatric care provided throughout the state (s. 9). The Chief Psychiatrist is interested in all aspects of the MHA and has primary responsibility to ensure that the objects of the MHA are upheld. The Chief Psychiatrist also has a number of specific legislative responsibilities under the MHA and the *Mental Health Regulations 1997*. Electroconvulsive Therapy (ECT) is a special treatment under the MHA and requires specific consideration.

The Chief Psychiatrist Advisory Group (CPAG) was set up to provide advice and recommendations to the Chief Psychiatrist on the future developments of best practice and the monitoring of ECT in Western Australia.

Membership of CPAG included representatives from the WA ECT Interest Group, Graylands' ECT Working Group, Office of Mental Health, the Health Consumers' Council, Carers WA, Council of Official Visitors, Australia & New Zealand Royal College of Anaesthetists, the private hospitals (Hollywood Private Hospital, Perth Clinic and Joondalup Hospital), the Licensing Standards & Review Unit (LSRU), and the Area Mental Health Services.

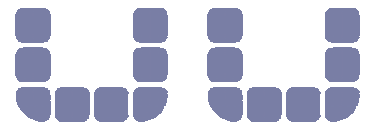
CPAG were charged with the development of:

- I. a set of standards in relation to the practice of ECT throughout the State;
- II. best practice clinical guidelines in relation to ECT;
- III. an accreditation process in relation to clinicians and services who practice ECT; and
- IV. a framework for the Chief Psychiatrist to monitor the practice of ECT throughout the state.

The ECT Guide: The Chief Psychiatrist's Guidelines for the use of Electroconvulsive Therapy in WA (The ECT Guide) is the first outcome of this process. It is a guide to the information that clinicians require to carry out ECT safely as well as providing a reference text for all those who have a personal or professional interest in the safe practice of ECT and the management of ECT Units.

The ECT Guide will be updated as required and additional documents may be added or removed. Inquiries or questions on *The ECT Guide* may be addressed to the Clinical Consultant, Office of the Chief Psychiatrist, Department of Health, 189 Royal Street, East Perth WA 6004. The Office of the Chief Psychiatrist can be contacted on (08) 9222 4462. A copy of *The ECT Guide* will be provided in the website of the Chief Psychiatrist- www.chiefpsychiatrist.health.wa.gov.au

Licensing inquiries should be addressed to the Manager, LSRU, Department of Health, 189 Royal Street, East Perth, WA 6004. The LSRU can be contacted on 9222 4027. For information on licensing go to http://www.health.wa.gov.au/private_licensing/about/



ACKNOWLEDGEMENTS

The preparation of The ECT Guide: *The Chief Psychiatrist's Guidelines for the use of Electroconvulsive Therapy in WA* would not have been possible without the effort of a great many people from both the public and private health sectors, all experts in their own field, and consumer and carer representatives who participated in the Chief Psychiatrist's Advisory Group on Electroconvulsive Therapy (CPAG).

Particular thanks is due to the Mental Health Evaluation and Community Consultation Unit, University of British Columbia, for their generosity in allowing the Department of Health to use the "Electroconvulsive Therapy: Guidelines for Health Authorities in British Columbia" as a template for developing the Western Australia version, and to rely upon and otherwise use material contained in the referred guidelines.

Appreciation is extended to all those individuals and their respective organisations that have made the production of The ECT Guide: *The Chief Psychiatrist's Guidelines for the use of Electroconvulsive Therapy in WA* possible. Special thanks to Mr Geoff Burrell from the Licensing Standards and Review Unit at the Department of Health who provided additional assistance in preparing this document.

Dr Rowan Davidson
Chief Psychiatrist

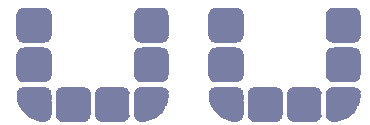
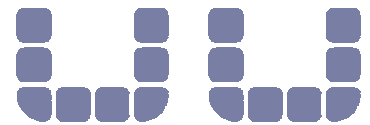


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1.0 Purpose

The purpose of *The ECT Guide* is to help standardise and continuously improve the delivery of ECT services across Western Australia. There will be differences in the way care is delivered, according to local resources, but good basic care must be available wherever ECT is provided. This Guide will establish the level of care that should be provided for the practice of ECT in Western Australia

2.0 Application

There is a great deal of evidence-based research on ECT, but clearly there is always much that needs to be researched. The treatment of patients, including the use of ECT can be complex. For this reasons, these guidelines should be considered recommendations rather than mandatory requirements, except when discussing legal mandates.

Whilst working within the constraints of having to meet minimum standards, health professionals still need to tailor treatments to the individual patient's needs. When ensuring that minimum standards are met, some reasonable latitude is also needed to make certain that health professionals practising in regional or remote areas are not held to standards while continuously developing the service to meet those standards. However standards that relate to safety of ECT practice must always be met.

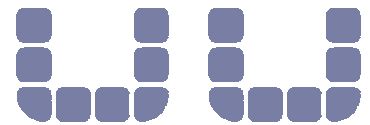
3.0 Responsibility for ECT Services

Responsibility for the delivery of ECT services rests primarily with health care professionals within a health service. However, patients, families, the Department of Health (DoH) and others also have responsibilities as outlined below.

3.1 Department of Health Western Australia

Responsibilities are to:

- 3.1.1 regulate ECT facilities to ensure they are safe and that ECT is provided in an appropriate environment of care;
- 3.1.2 review and revise these guidelines(in consultation with health services, professions, and other stakeholders) at least every 5 years, or more regularly depending on developments in the field;
- 3.1.3 establish (in consultation with health services and private healthcare providers) methods of recording data about ECT services that make inter-facility comparisons useful for quality assurance purposes;
- 3.1.4 ensure that accurate information about the provision of ECT in Western Australia is made available to the public;
- 3.1.5 set standards for the delivery of ECT services, and monitor the practice of ECT within Western Australia, to protect the public and ensure that minimum standards are met;
- 3.1.6 monitor compliance with the ECT provisions of the MHA.



3.2 Health Services

Responsibilities are to:

- 3.2.1 establish clear policies consistent with the MHA, *The ECT Guide* and other relevant legislation;
- 3.2.2 appoint a consultant psychiatrist in each health service to be responsible for the ECT service;
- 3.2.3 appoint a senior nurse in each health service to be responsible for ensuring ECT nursing procedures are appropriate;
- 3.2.4 provide facilities, equipment and furnishings to make the procedures safe and user-friendly;
- 3.2.5 ensure staff are appropriately trained, and that there is a program of credentialing¹ for medical officers who administer ECT;
- 3.2.6 establish and carry out a quality assurance program that may include: reviews of credentialing; clinical privileging²; equipment; training, patient and family satisfaction and comparisons with other health services;
- 3.2.7 review and update treatment policies and protocols on a regular basis;
- 3.2.8 report serious incidents in relation to the practice of ECT promptly to the Chief Psychiatrist and other relevant reporting requirements are implemented appropriately.

3.3 Consultant Psychiatrists in charge of ECT services

Responsibilities are to:

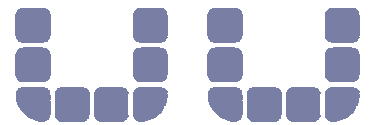
- 3.3.1 regularly attend and participate in ECT treatment sessions;
- 3.3.2 develop and update treatment protocols;
- 3.3.3 ensure that there is a functioning credentialing and clinical privileging system for ECT, and that training and competency requirements consistent with these guidelines are established and maintained;
- 3.3.4 liaise with and advise other professionals;
- 3.3.5 audit and ensure quality assurance of ECT services under their control;
- 3.3.6 undertake continuing professional development of ECT in relation to knowledge and skills;
- 3.3.7 ensure that the service has a system for the recording and reporting of relevant data;
- 3.3.8 report serious incidents in relation to the practice of ECT promptly to the Chief Psychiatrist and other relevant reporting requirements are implemented appropriately.

3.4 Treating Psychiatrists

Responsibilities are to:

¹ Credentialing is the formal process used to verify the qualifications, experience and professional standing of medical practitioners for the purpose of forming a view about their competence, performance and professional suitability to provide safe, high quality health care for services within specific organisational environments.

² Clinical privileges mean the type of medical services that an individual medical practitioner is approved to provide at a health care facility.



- 3.4.1 select appropriate patients for the treatment;
- 3.4.2 provide information and education about ECT, including issues of rights, to patients and carers;
- 3.4.3 obtain informed consent from patients, or comply with the provisions of the MHA related to ECT for involuntary patients or mentally impaired accused who are in an authorised hospital;
- 3.4.4 involve relatives in the consent process according to good medical practice;
- 3.4.5 liaise with anaesthetists, nurses, and other medical specialists as needed;
- 3.4.6 prescribe ECT and monitor on-going care;
- 3.4.7 ensure that all records are maintained and completed;
- 3.4.8 participate in quality assurance activities relevant to ECT services;
- 3.4.9 ensure that reporting requirements are met;
- 3.4.10 individually, ensure that they have the appropriate levels of accredited training and competency in the administration of ECT;
- 3.4.11 report serious incidents in relation to the practice of ECT promptly to the Chief Psychiatrist and other relevant reporting requirements are implemented appropriately.

3.5 Medical Staff Administering ECT

Responsibilities are to:

- 3.5.1 ensure ECT is administered safely in an environment appropriate for the patient's needs;
- 3.5.2 ensure that an appropriate seizure is induced;
- 3.5.3 ensure that the stimulus dose and administration technique are optimal;
- 3.5.4 ensure adequate records are kept of treatments and incidents.

3.6 Anaesthetist

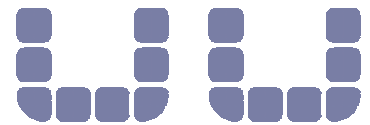
Responsibilities are to:

- 3.5.1 ensure the safety of the unconscious patient until they are formally handed over to the care of a suitably qualified health professional;
- 3.6.2 comply with the requirements of all relevant Australian and New Zealand College of Anaesthetists (ANZCA) guidelines and professional documents;
- 3.6.3 ensure that the administration of ECT anaesthesia follows best practice.

3.7 Psychiatric Unit Manager

Responsibilities are to:

- 3.7.1 manage the ECT Suite or treatment area by ensuring it is properly prepared, organised and maintained;
- 3.7.2 develop operational policies and procedures for the ECT Suite or treatment area;
- 3.7.3 perform audits as required for quality assurance purposes;
- 3.7.4 report serious incidents in relation to the practice of ECT promptly to the Chief Psychiatrist and other relevant reporting requirements are implemented appropriately.



3.8 ECT Nurse Coordinator

Responsibilities are to:

- 3.8.1 develop operational policies and procedures;
- 3.8.2 manage the ECT Suite by ensuring it is properly prepared, organised and maintained;
- 3.8.3 supervise the operation of ECT service sessions;
- 3.8.4 liaise with, educate and advise patients, carers and other professionals;
- 3.8.5 ensure continuous quality improvement activities;
- 3.8.6 ensure effective management of complaints;
- 3.8.7 ensure that the nursing and support staff providing ECT are trained and are competent in the administration of ECT;
- 3.8.8 ensure that an orientation process to the ECT area and process is available for staff;
- 3.8.9 ensure that all records are maintained and completed;
- 3.8.10 report serious incidents in relation to the practice of ECT promptly to the Chief Psychiatrist and other relevant reporting requirements are implemented appropriately.

3.9 Nursing Staff

Responsibilities are to:

- 3.9.1 Work within their scope of practice and ensure that they have the appropriate levels of training and competency to assist in the administration of ECT;
- 3.9.2 prepare patients psychologically and physically for ECT;
- 3.9.3 participate in the actual delivery of ECT, including preparation and aftercare;
- 3.9.4 provide education to patients and their families about ECT and the management of the illness it is treating;
- 3.9.5 participate in continuous quality improvement activities relevant to ECT services.

3.10 Patients

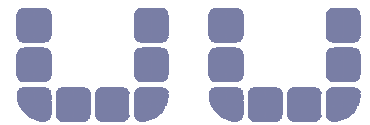
Responsibilities are to:

- 3.10.1 participate in their care as much as possible;
- 3.10.2 report positive and negative effects to clinical staff.

3.11 Families and Other Carers

Responsibilities may include:

- 3.11.1 care and support of the patient receiving ECT;
- 3.11.2 receiving information provided about ECT and asking question if uncertain;
- 3.11.3 report progress or problems to the clinical team as appropriate.



1.0 INDICATIONS FOR USE

1.1 GENERAL CONSIDERATIONS

Electroconvulsive Therapy (ECT) is a safe and effective treatment for a variety of psychiatric and some medical conditions.

Prospective studies have demonstrated that ECT is more efficacious than “sham” ECT in the treatment of psychiatric illness (American Psychiatric Association Task Force on Electroconvulsive Therapy, 2001; Brandon et al., 1985). ECT has also been shown to be more effective than treatment with standard antidepressant drugs in “medication-resistant” patients with depression. (Folkerts et al., 1997; Lam et al., 1999).

Due to the treatment’s efficacy and rapidity of response, (especially when patients are successfully identified and treated early in the course of hospitalisation) there can be a significant reduction in the length of stay and therefore hospitalisation costs following treatment with ECT. (Markowitz, J. Brown, R. Sweeney, J. & Mann, J. J., 1987; Olfson et al., 1998).

ECT response rates (found to be around 75 - 85% for mood disorders, but as low as 60 - 70% for those resistant to medication) appear to be fairly consistent across the lifespan.

In the older patient, despite generally higher seizure thresholds, evidence suggests that response rates are higher than other types of treatment for mood disorder. This appears to be true for the “young” elderly (65 - 74) (Rubin, E. H., Kinscherf, D. A., Wehrman, S. A., 1991), and “old” elderly (75 or greater) (Manly, D.T. Oakley, S.P. Jr., Bloch, R.M., 2000; O’Connor et al., 2001). ECT also seems to be associated with fewer complications, compared to certain antidepressants when used with these age groups. (American Psychiatric Association Task Force on Electroconvulsive Therapy, 2001).

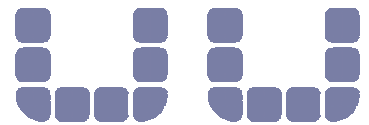
Nevertheless, ECT can induce side effects, and, high-risk groups can be identified. This is discussed in later chapters. Relapse rates after an adequate acute course of ECT can be high without continuation or maintenance of medications and/or ECT.

1.2 PRIMARY INDICATIONS FOR USE

1.2.1 Major Depressive Episode (arising from unipolar depression, as part of bipolar depression, or concomitant manic symptoms during “mixed states”).

ECT should be strongly considered, especially when associated with one of the following features:

- a) acute suicidality with high risk of acting out suicidal thoughts;
- b) psychotic features;
- c) rapidly deteriorating physical status due to complications from the depression, such as poor oral intake;
- d) history of poor response to pharmacological interventions;
- e) history of good response to ECT;



- f) patient preference;
- g) when the risks of standard antidepressant pharmacological interventions outweigh the risks of ECT, particularly in medically frail or elderly patients;
- h) catatonia.

1.2.2 Mania

ECT should be particularly considered if:

- a) patient presenting in extreme and sustained agitation;
- b) patient presenting “manic delirium”;
- c) poor response or history of poor response to pharmacological interventions;
- d) acute suicidality with high risk of acting out suicidal thoughts;
- e) psychotic features;
- f) rapidly deteriorating physical status due to complications from the mania;
- g) history of good response to ECT;
- h) patient preference;
- i) risks of pharmacological treatment outweigh the risks of ECT, particularly in medically frail or elderly patients.

1.2.3 Schizophrenia

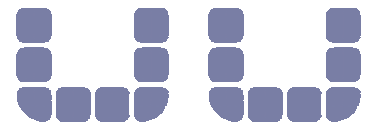
Studies demonstrating a favourable response to ECT, in regard to psychotic symptoms, have generally looked at the use of a combination of ECT and standard antipsychotic medication (Chanpattana et al., 1999; Chanpattana, W. Chakrabhand, M. L., Buppanharun, & W. Sackeim, H. A., 2000).

There are reports that those with significant affective symptoms, whether arising from primary schizophrenia (Freeman, 1995) or schizoaffective disorder (Swoboda et al., 2001; Kramer, 1999), can also benefit significantly from ECT. ECT for those with negative symptoms, or aggression unrelated to these conditions cannot be recommended at this time because of insufficient data.

Related conditions such as schizophreniform disorder can also respond favourably to ECT, but there is insufficient evidence to recommend ECT as being a primary treatment for brief psychotic disorder, which by its nature is considered time-limited. However during the course of a brief psychotic disorder, ECT may be an option when the condition is considered life-threatening.

The following associated features predict a favourable response to ECT (American Psychiatric Association Task Force on Electroconvulsive Therapy, 2001):

- a) Positive symptoms with abrupt or recent onset;
- b) Catatonia;
- c) History of good response to ECT;
- d) Poor response to pharmacological interventions.



1.3 SPECIAL CONDITIONS

1.3.1 Catatonia (unrelated to the primary conditions described above)

There should be a thorough medical and neurological review to identify reversible physical conditions in order to evaluate the risk for ECT and to initiate prompt medical treatment.

1.3.2 Parkinson's Syndrome

The motoric symptoms can improve, especially with associated "on-off " phenomenon. However, if an acute course of ECT is initiated, provisions should be considered for maintenance ECT in order to sustain a remission (Wengel et al., 1998; Aarsland, D. Larsen, J. P. Waage, O. & Langeveld, J. H., 1997). The treating psychiatrist should consider adjusting doses of anti-Parkinsonian agents during the course of ECT due to the possibility of treatment-emergent dyskinesia or psychosis.

1.3.3 Neuroleptic Malignant Syndrome

Antipsychotic medication should be discontinued and autonomic stability achieved before initiating ECT (American Psychiatric Association Task Force on Electroconvulsive Therapy, 2001).

1.3.4 Mood Disorder Secondary to Physical Conditions

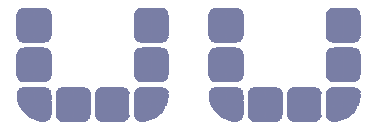
Reversible underlying physical conditions should be adequately addressed first, in order to speed resolution of symptoms and lessen ECT risks.

1.3.5 Dementia

The efficacy of ECT, when applied to those with dementia and concomitant mood disorder does not have an evidence base sufficient for recommendation. Clinical experience, case reports (Weintraub, D. Lippmann, S. B., 2001), and retrospective case series (Rao, V. & Lyketsos, C.G., 2000) point to ECT being beneficial for mood improvement, and sometimes cognitive symptoms and signs in all stages of dementia.

Whilst ECT for depression associated with dementia, especially when leading to deteriorating cognitive symptoms, is supported, ECT for behavioural symptoms is not recommended.

Ageing and dementia increase the likelihood of post-ECT delirium or transient worsening of cognitive impairment. Adjustment in technique (e.g., switch to unilateral or bifrontal ECT) and/or frequency of treatments (e.g. twice weekly instead of thrice weekly) should be optimised to the clinical condition during the course, with special attention paid to effects on cognitive status.



1.3.6 Pregnancy and Postpartum Period

ECT is considered a low-risk and effective treatment in all stages of pregnancy (Echevarria, M. M. Martin, M.J. Sanchez, V. J. & Vazquez, G. T., 1998; Bhatia SC, Baldwin SA, Bhatia SK, 1999). Anaesthesia consultation should be obtained well ahead of time because of potential differences in technique, monitoring, and positioning (American Psychiatric Association Task Force on Electroconvulsive Therapy, 2001).

Obstetrical consultation is also required, particularly with high-risk pregnancies and those near term. Resources should be readily accessible in the event of a neonatal or obstetric emergency.

ECT is also considered a low-risk and effective treatment in the postpartum period. Anaesthetic agents pose little risk to the breast-fed infant (American Psychiatric Association Task Force on Electroconvulsive Therapy, 2001).

1.3.7 Children and Adolescents

It should be recognised that this is an area of major public debate, contention and concern. The approach of services and clinicians should acknowledge public concern regarding the use of ECT in these groups. As a matter of policy ECT should not be used for children under 12 years of age. A recommendation accepted by the WA Government is that with a new Mental Health Act, ECT for children under 12 years of age will not be permitted.

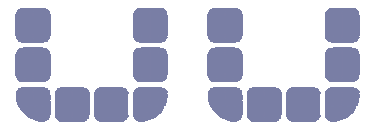
Limited information exists on the use of ECT in adolescents, however, available evidence suggests that ECT can be effective for treating the primary conditions, outlined earlier, such as depression, mania, schizophrenia (Thorpe, L. Whitney, D.K. & Kutcher, S.P. 2001; Rey, J.M. & Walter, G., 1997; Duffett, R. Hill, P. & Lelliott, P., 1999; Cohen, D. Paillere-Martinot, M.L. Basquin, M., 1997; Kutcher, S. & Robertson, H.A. 1995), Rey and Walter (1997) also suggest a place for ECT in the treatment of catatonia.

Treating adolescents with ECT should be considered only when symptoms are severe, persistent, and significantly disabling.

Other parameters would include life-threatening symptoms and medication-resistant/intolerant patients. In the latter condition, since adolescents often do not adhere to medication regimes, the adequacy of medication trials needs to be scrutinised before embarking on a course of ECT.

For an involuntary patient, obtaining the mandatory second psychiatric opinion from a Children and Adolescent Mental health Service (CAMHS) psychiatrist is strongly recommended before ECT be administered.

Serious complications are rare (Rey, J.M. Walter, G., 1997), however the psychiatrist should take into account that on average the adolescent has a lower seizure threshold.



Resource availability, consent, and psychiatric attitudes towards ECT for minors (Ghaziuddin et al., 2001) are issues potentially limiting further study in this area. Nevertheless, ECT can reduce morbidity and mortality in this age group, just as in other age groups.

1.3.8 Elderly Patients

Aside from physiological considerations during, and immediately after anaesthesia, being elderly in it self confers no specific risk for ECT, and may in fact predict a favourable response when compared to younger adults.

However, being elderly increases the likelihood of dementia and physical illness, which may in turn increase the risk for adverse effects of ECT. For this reason, pre-treatment evaluation is particularly important in the elderly, and an anaesthesia consultation is appropriate.

1.3.9 Congenital and Acquired Brain Injury

Whilst not used for congenital and acquired brain injury per se, ECT can be effective in the treatment of depression, mania, schizophrenia and catatonia in the patient with a concomitant congenital or acquired brain injury.

A number of case reports describe the effectiveness of ECT in treating patients with congenital and acquired brain injury without promoting persistent cognitive impairment (Thuppai, M. & Fink, M. 1999; Aziz et al., 2001; Kant, R. Coffey, C.E. & Bogyi, A.M., 1999).

There is a higher risk for post-ECT delirium, so adjustments in technique and/or frequency of treatments should be considered.

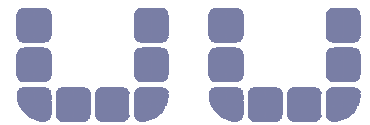
1.4 OTHER CONDITIONS

There is insufficient data to advocate the use of ECT for such conditions as primary anxiety disorders, including post-traumatic stress disorder, or primary delusional disorder (Fink, M., 1999).

Those with chronic pain, along with concurrent affective symptoms, may experience an analgesic effect (Bloomstein et al, 1996), but this area requires further study.

Studies indicate that those with a personality disorder, particularly borderline type, can benefit if they have a concomitant Axis I mood disorder, but there is likely a reduced response rate overall, and a higher risk for relapse within one year (Sareen, J. Enns, M.W. & Guertin, J.E., 2000; Debattista, C. Mueller, K., 2001).

Drug-induced extrapyramidal symptoms have also been reported to improve transiently with ECT, but its role in this condition has not been established (Freeman, C., 1995).



1.5 CULTURAL CONSIDERATIONS

It is important to understand the cultural context in which patients consent to, or refuse, ECT. There may be specific beliefs in certain cultures surrounding electricity and touching of the head that can prevent patients from accepting ECT as a form of treatment.

Another barrier occurs in refugees and immigrant populations who may have experienced incarceration for political reasons in psychiatric institutions and who have been subjected to ECT involuntarily without psychiatric indication.

Survivors of torture, who have been subjected to electrical shocks, may also resist the notion of ECT. The reluctance to proceed with ECT on a voluntary basis is unfortunate but must be respected in these circumstances, even though these individuals may benefit significantly from ECT in treating mood and psychotic disorders that have developed as a complication of trauma or migration (National Institute for Clinical Excellence, 2003).

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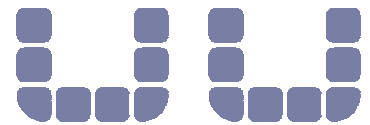
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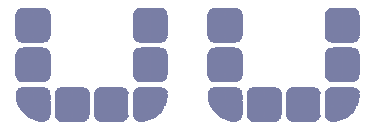
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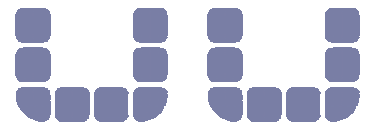
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2.0 PATIENT SELECTION AND PRE-ECT EVALUATION

2.1 Selection and Risk

Patient selection is critical in ensuring a high degree of confidence that ECT will be more effective while minimising risk than other treatments options.

ECT evaluation also considers the presence of concurrent medical conditions that can increase risk, as well as the concurrent use of medical or psychiatric medications that can alter risk.

Risk in these circumstances is defined as serious morbidity and mortality, which is most likely cardiopulmonary in nature (American Psychiatric Association Task Force on Electroconvulsive Therapy, 2001), and is considered in line with the risk associated with other low-risk procedures under a general anaesthetic.

A wide range of mortality rates are reported in the literature, for example a figure derived by Kramer of 2/100,000 individual ECT treatments, yielding a figure of 1.6 deaths per 10,000 in a (typical) course of 8 ECTs (Abrams, 1997). This approximates the mortality figure of 1/10,000 quoted in the APA guidelines (American Psychiatric Association Task Force on Electroconvulsive Therapy, 2001).

2.2 Contraindications for ECT

2.2.1 There are no absolute contraindications for ECT.

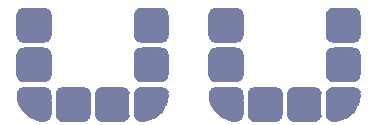
2.2.2 ECT may be deemed necessary even when such “relative contraindications” are present including-

- a) Unstable or severe cardiovascular conditions, such as recent myocardial infarction, unstable angina, poorly-compensated heart failure, and severe valvular cardiac disease including critical aortic stenosis;
- b) Aneurysm or vascular malformation that might be susceptible to rupture with increased blood pressure;
- c) Increased intracranial pressure, as may occur with some brain tumours or other space-occupying cerebral lesions;
- d) Recent cerebral infarction;
- e) Pulmonary conditions such as severe chronic obstructive pulmonary disease, asthma, or pneumonia;
- f) Patient status rated as American Society of Anaesthesiologists (ASA) level 4 or 5 (American Psychiatric Association Task Force on Electroconvulsive Therapy, 2001).

2.2.3 Conditions having substantially higher risk with ECT include-

- a) Pheochromocytoma;
- b) Retinal detachment;
- c) Acute narrow angle glaucoma.

2.2.4 Those with cardiac pacemakers and implanted automatic defibrillators warrant some caution. It is unlikely ECT would disrupt the functioning of a modern cardiac pacemaker, but if uncertain, consult a cardiologist.



The monitoring leads should be well grounded, and it is preferable not to have someone holding the patient who is grounded to the floor.

Implanted automatic defibrillators are more susceptible to the effects of ECT during stimulation, thus a cardiologist and an anaesthetist should be consulted before providing the treatment.

2.3 Pre-ECT Evaluation

- 2.3.1 Other important concurrent medical conditions should be evaluated prior to ECT such as atrial fibrillation, diabetes, hypertension and gastroesophageal disease (American Psychiatric Association Task Force on Electroconvulsive Therapy, 2001).

Pre-ECT evaluation is also required for those patients with cardiovascular conditions (Journal of Electroconvulsive Therapy, 1997), those with neurological conditions (Krystal & Coffey, 1997), and those who are elderly (Kelly & Zisselman, 2000; Rabheru, 2001).

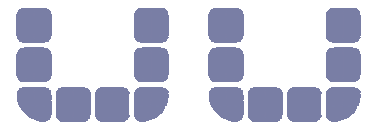
- 2.3.2 An adequate pre-ECT evaluation should include the following, to be carried out within 7 days for both inpatients and outpatients-

- a) A thorough history and physical examination;
- b) Evaluation of dentition for the presence of dentures and dental problems that could affect the use of the bite-block. Temporal-mandibular joint problems can also be noted;
- c) An electrocardiogram for those over 45 years of age, or those with known cardiovascular disease.

- 2.3.3 Other routine lab investigations are not mandatory and should be guided by the patient's history and a physical examination. Common investigations include haemoglobin, electrolytes, and renal function tests.

- 2.3.4 The pre-ECT evaluation may also include-

- a) A chest x-ray if there is a florid or unstable cardiopulmonary condition;
- b) A cervical spine x-ray in those with suspected cervical spine instability in cases such as rheumatoid arthritis, severe osteoporosis, Down's syndrome, and certain collagen vascular diseases. This is necessary because the treatment warrants full muscle relaxation and monitoring of the maximum relaxation time using a nerve stimulator;
- c) An anaesthesia consult, strongly advised for those over age 60, those with significant cardiovascular or neurologic conditions, those who are pregnant, and those with potentially unstable cervical spine instability;
- d) A speciality consultation (e.g., cardiology, neurology) is advised for medical conditions that would substantially increase the risk of ECT. Speciality consultation for special populations may also be indicated (e.g., obstetrics, paediatrics). An obstetrical consult before the provision of ECT is required for those who have high-risk pregnancies or are near term.



2.4 Pre-ECT Documentation and Referral

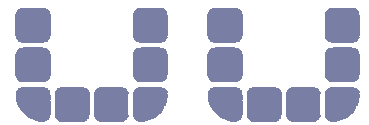
2.4.1 The following should be documented before ECT is given and the information provided to the medical practitioner administering the treatment-

- a) Indication for use of ECT;
- b) Comorbid psychiatric diagnoses;
- c) Concurrent medical conditions, highlighting those that can substantially enhance the risk of ECT;
- d) Current medications;
- e) Whether a physical examination has been done within the recommended time frame, and the findings. A base-line blood pressure and pulse rate should be recorded as part of this physical examination;
- f) Whether informed consent was obtained;
- g) For involuntary patients and mentally impaired accused in an authorised hospital, the psychiatrist must recommend the treatment and another psychiatrist must approve the recommendation;
- h) Whether information about ECT was given to the patient and/or family;
- i) Whether an anaesthetist was consulted, and if available, the anaesthetic category;
- j) Copies of consultations by other specialists during the pre-ECT evaluation;
- k) Whether the patient has a cardiac pacemaker or implanted automatic defibrillator;
- l) Dentition and the presence of dentures;
- m) Allergies, including latex allergy;
- n) Base-line cognitive function (Mini Mental State Examination (MMSE) recommended);
- o) Any prior history of ECT and its outcome;
- p) The treating psychiatrist, or where relevant a credentialed medical practitioner's prescription for bitemporal, bifrontal, or unilateral ECT (if requested), and what frequency;
- q) The name and signature of the treating psychiatrist;
- r) The consent form must document that there has been discussion about the patient's preference in regard to the form, risks, side effects and frequency of the treatment. This should be further documented in the patient's medical record.

2.4.2 Documentation should clearly identify which medications should be withheld during each ECT treatment, which medications should be given on the morning of ECT, and which medications should be continued post-ECT.

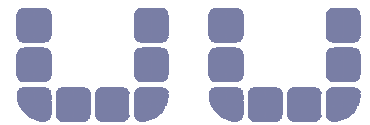
2.5. Prescribing by neurologists

Neurologists occasionally prescribe ECT for physical conditions such as Parkinsons Disease. It is strongly recommended that any such treatment is prescribed and performed to the standards outlined in this guide. A Neurologist should not administer ECT unless credentialed by the health care facility to do so.



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3.0 PATIENT INFORMATION AND CONSENT

3.1 Overview

- 3.1.1 Voluntary and Involuntary patients under the MHA as well as carers must be given the opportunity to be adequately informed about ECT when it is recommended.
- 3.1.2 A valid informed consent must be obtained from voluntary patients. (see Appendix: Recommended Patient Consent Form)
- 3.1.3 In the case of involuntary patients, or mentally impaired accused in authorised hospitals, ECT can be given without their consent providing the requirements set out in Division 5 of Part 5 of the MHA are followed. If there is a change of status from involuntary to voluntary the issue of consent needs to be reviewed and consent obtained.
- 3.1.4 Consent should not be viewed as simply filling in a form, but rather as a dynamic process that starts when the treatment is first recommended, and does not end until the therapy is completed. It should be an interactive educational process between patients and mental health professionals, where patients are respected as individuals with rights and needs, including the right to participate in decision-making and treatment planning and to have their questions answered.

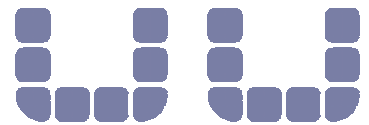
3.2 Informed Consent

- 3.2.1 A medical practitioner may be in breach of the duty of care if he or she fails to warn the patient of the 'material and significant' risks associated with treatments and procedures, or, fails to comply with the legislative provisions addressing the failure of the practitioner to warn.
- 3.2.2 For many years, the standard applied by the courts to cases of negligence (including alleged failure to provide adequate quality and quantity of information pre-operatively) has been the Bolam test. This considers actions to be negligent if they fall short of the standard expected of "the reasonable man".

In matters of consent, the reasonable man is taken to be a reasonable medical practitioner and if a matter reaches court the defendant is judged against whether he or she has "acted in accordance with a practice accepted as proper by a responsible body of medical men skilled in that particular art".

- 3.2.3 This position changed considerably in 1992 following the *Rogers vs Whittaker* case, where the court considered the patient's point of view. In reaching its decision the High Court stated that:

"A risk is material if, in the circumstances of the particular case, a reasonable person in the patient's position, if warned of the risk, would be likely to attach significance to it, or if the medical practitioner is or should reasonably



be aware that a particular patient, if warned of the risk, would be likely to attach significance to it".

- 3.2.4 The High Court made it clear that a patient's consent to medical treatment is meaningless unless it is made on the basis of relevant information and advice.

A patient's choice, whether or not to undergo treatment, requires a decision based upon information which is known to the treating psychiatrist but not to the patient. Therefore, it is up to the treating psychiatrist to disclose to that patient information as to the material risks inherent in the proposed treatment.

- 3.2.5 In Chappel vs Hart (1998) it was further held that '*a failure to warn of a specific complication deprived the patient of the opportunity to delay the procedure, and, to seek out a more experienced surgeon*'. Therefore, the surgeon was liable to pay damages even though the surgery was not performed in a negligent manner. This case marked a turning point in 'failure to warn' as grounds for litigation.

- 3.2.6 Medical practitioners have tended to rely on specific recollection of pre-treatment discussions that may have been held some years previously. Alternatively, they have used 'my invariable practice' as a defence, but this is rarely supported by detailed contemporaneous documentation in the patient's medical record. Without such documentation, courts are less likely to accept the defence. Even the notation, "all risks discussed", has been rejected as non-specific.

3.3 Mental Health Act 1996 And Informed Consent

- 3.3.1 The objects of the MHA require that persons having a mental illness receive the best care and treatment with the least restriction of their freedom and the least interference with their rights and dignity.

The objects also seek to ensure the proper protection of patients, as well as the public, and to minimise the adverse effects of mental illness on family life.

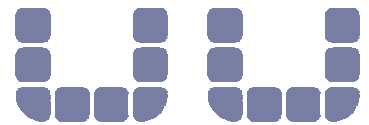
- 3.3.2 Part 7 of the MHA sets out patient's rights. It also establishes that the patient must be given an explanation of those rights in a form in which they are used to communicating and can understand.

Part 5 of the MHA sets out the requirements for the treatment of patients, the requirements for obtaining informed consent, the requirements for ECT and the overarching requirements when emergency psychiatric treatment is required.

- 3.3.3 Clinicians are referred to the MHA or to the Clinicians Guide for more detailed information.

3.3.3 Informed Consent For Voluntary Patients

- 3.4.1 Prior to any ECT taking place, except in the case of emergency psychiatric treatment (3.9), the patient's informed consent to that treatment must be



obtained. A voluntary patient has the right to refuse or consent to ECT. This includes the right to withdraw their consent to ECT at any time.

3.4.2 Particular requirements of the MHA are:

Part 5, Division 2 - Informed consent Requirements for informed consent

"95. (1) For the purposes of this Division a patient gives informed consent to treatment only if –

- (a) the requirements of this Division have been complied with;*
- and*
- (b) the consent was freely and voluntarily given.*

(2) A failure to offer resistance to treatment does not of itself constitute consent to treatment."

3.4.3 Considerations that flow from Section 95 include:

- a) A patient should not be coerced into giving their consent to ECT. If they are coerced then the consent given is not valid;
- b) Consent is an active process that requires the patient to give their assent. If a patient passively acquiesces to treatment the treating psychiatrist cannot view that lack of protest as consent.

3.4.4 Capacity to give informed consent

"96. A patient is incapable of giving informed consent unless he or she is capable of understanding –

- a) the things that are required by this Division to be communicated to him or her;*
- b) the matters involved in the decision; and*
- c) the effect of giving consent."*

3.4.5 The MHA puts in place specific requirements to cover the situation where a patient lacks the capacity to give informed consent.

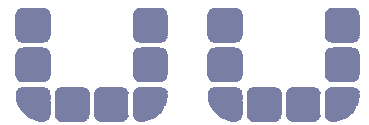
3.4.6 In cases where the involuntary patient is incapable of giving informed consent then the treating psychiatrist becomes the decision maker, supported by a second opinion from another psychiatrist.

3.4.7 A voluntary patient who lacks the capacity to give informed consent cannot be given ECT.

3.4.8 Explanation to be given

"97. (1) Before an informed consent is given the patient is to be given a clear explanation of the proposed treatment –

- (a) containing sufficient information to enable the patient to make a balanced judgment about the treatment;*



- (b) identifying and explaining any medication or technique about which there is insufficient knowledge to justify its being recommended or to enable its effect to be reliably predicted; and*
- (c) warning the patient of any risks inherent in the treatment.*

(2) The extent of the information that a patient is required to be given under this section is limited to information that a reasonable person in the patient's position would be likely to regard as significant unless it is, or reasonably should be, known that the patient would be likely to regard other information as significant.

(3) The requirements of subsection (1) apply irrespective of any privilege that a person may assert.

(4) Anything that is required by this section to be communicated to a patient is not to be considered to have been effectively communicated unless –

- (a) it is in a language or form that is readily understood by the patient using a competent interpreter if necessary; and*
- (b) it is so expressed as to facilitate his or her understanding of what is required to be communicated."*

3.4.9 Section 97 enacts the material disclosure provisions of *Rogers v Whittaker*, making it statute law that the clinician must comply with.

3.4.10 Policy considerations that follow from Section 97 are:

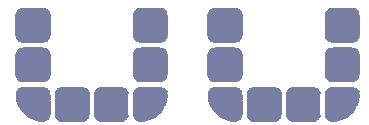
- a) In order to ensure that the consent that is being given is for the health care that is being proposed it is recommended that the MHA's definition of ECT is used in all written information provided to the patient, ie:

"electroconvulsive therapy" means the application of electric current to specific areas of the head to produce a generalised seizure which is modified by general anaesthesia and the administration of a muscle relaxing agent."

- b) It would follow from this definition that consent to ECT is also consent to the administration of general anaesthesia and a muscle-relaxing agent. Information must also be provided to the patient on these other aspects of the procedure, as part of the material disclosure of risks;
- c) Consent is usually given for undergoing a course of ECT. To ensure that the patient is consenting to the treatment being proposed it is recommended that what constitutes a course of ECT is clearly defined in any consent documentation.

3.5 Sufficient time to be given

3.5.1 Informed consent is not to be considered to have been given unless the patient has been allowed sufficient time to consider the matters involved in the decision and obtain such advice and assistance as may be desired.



- 3.5.2 This requirement needs to be carefully considered when scheduling treatment so that the patient has sufficient time between any discussions and subsequent treatment to carefully consider the implications of giving or withholding that consent.
- 3.5.3 It is clear from the above that:
- a) a voluntary patient may refuse or consent to any treatment;
 - b) prior to any ECT taking place, except in the case of emergency, the patient's informed consent to that treatment must be obtained;
 - c) a voluntary patient has the right to withdraw their consent to ECT at any time;
 - d) if a mentally competent patient refuses to sign a written consent form for ECT then the treating psychiatrist must not proceed with treatment until consent has been validly obtained.

3.6 Part 5, Division 5 - Electroconvulsive therapy Subdivision 2 – Other patients

3.6.1 Informed consent required

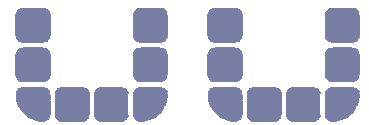
“107. (1) A person is not to perform electroconvulsive therapy on a person who is neither –
(a) an involuntary patient; nor
(b) a mentally impaired accused who is in an authorized hospital,
unless the person on whom the therapy is performed has given informed consent to it.

Penalty: \$10 000 and imprisonment for 2 years.

(2) Subsection (1) does not apply if the electroconvulsive therapy is given as emergency psychiatric treatment and the requirements of Division 7 have been fulfilled.

(3) It is no defense to a charge of an offence against subsection (1) of having performed electroconvulsive therapy on a person without the person having given informed consent to it that the person refused to give, or was incapable of giving, informed consent.”

- 3.6.2 Note that this provision applies to anyone who is not an involuntary patient or mentally impaired accused who is in an authorized hospital. Parents and guardians cannot give consent on behalf of a child or adolescent and a relative cannot give consent on behalf of a next of kin.
- 3.6.3 The treating psychiatrist must obtain valid consent from the patient. Other health care professionals (i.e., nurses, psychiatric registrars, or other students) may participate in the process of obtaining a valid consent by giving the required information to the patient. In the end, however, it is the sole responsibility of the treating psychiatrist (the psychiatrist who is in overall charge of the patient's psychiatric care) to ensure the process is completed properly.



3.6.4 It is the responsibility of the medical staff administering ECT at the time of the individual treatments to ensure consent forms have been properly completed and signed.

3.6.5 If the consent is obtained by fraud or misrepresentation, it will be invalid.

3.7 Informed Consent For Involuntary Patients And Mentally Impaired Accused

3.7.1 A person can be made an involuntary patient only if they have a mental illness, as described in the MHA, requiring treatment and they satisfy the criteria of Section 26 of the MHA. This includes that the person has refused, or is unable to give consent to treatment.

3.7.2 The issue of informed consent is particularly problematic when patients lack the capacity to give such consent. When a person is admitted to a mental health facility as an involuntary patient, the treating psychiatrist has a responsibility to inform the patient about the appropriateness and risks of ECT, if it is a recommended therapy.

Involving involuntary patients in matters of consent is good clinical practice and is required by the MHA. Involuntary patients may consent to treatment. However, whether the involuntary patient consents or does not consent a second psychiatrist must approve the recommendation of the treating psychiatrist.

3.8 Part 5, Division 5 - Electroconvulsive therapy Subdivision 1 – Involuntary patients and mentally impaired accused

3.8.1 Prerequisites

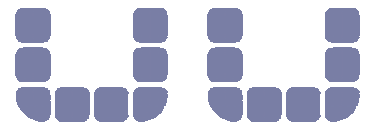
*"104.(1) A person is not to perform electroconvulsive therapy on –
(a) an involuntary patient; or
(b) a mentally impaired accused who is in an authorized hospital, unless –
(c) it has been recommended by the treating psychiatrist; and
(d) the recommendation is approved by another psychiatrist.*

Penalty: \$10 000 and imprisonment for 2 years.

(2) Subsection (1) does not apply if the electroconvulsive therapy is given as emergency psychiatric treatment and the requirements of Division 7 have been fulfilled."

3.8.2 Whether an involuntary patient or mentally impaired accused in an authorised hospital consents, does not consent or is incapable of consenting, another psychiatrist must approve the recommended treatment.

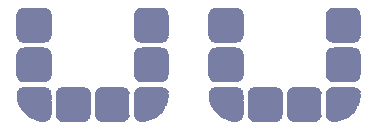
3.8.3 Before approval the second psychiatrist must be satisfied that the proposed treatment has clinical merit and would be appropriate in the circumstances.



- 3.8.4 One aspect of the role of the second psychiatrist is to ascertain whether the person has the capacity to give informed consent to the proposed therapy (s.105) and if they do have the capacity to determine whether or not that consent has been given.
- 3.8.5 In relation to a minor, where a second psychiatrist approves the ECT, all reasonable efforts must be made to notify the parents or guardian of the minor. It may also be relevant that if the minor is deemed to be (in the psychiatrist's opinion) a 'competent minor' then consent to discuss the matter with the parent or guardian should be obtained, (for definition of competent minor see 3.10.4).
- 3.8.6 If the second psychiatrist does not approve the treatment then the treatment cannot proceed. In those circumstances the treating psychiatrist may refer the matter in writing to the Mental Health Review Board (s106[1]).
- 3.8.7 If the second psychiatrist will not approve the recommended treatment it is not allowable to consult a third psychiatrist seeking approval.
- 3.8.8 In the above circumstance the Mental Health Review Board (MHRB) would investigate the issue. If the second psychiatrist continued to withhold approval of the recommended treatment then the MHRB may recommend that:
- a) the treating psychiatrist use an alternative treatment, or that,
 - b) care of the patient be transferred to another psychiatrist, or
 - c) order that the involuntary patient no longer be an involuntary patient (s.106).
- 3.8.9 If an involuntary patient is made voluntary during a course of ECT a new consent is required.

3.9 Informed Consent And Emergency ECT

- 3.9.1 The use of ECT as an emergency treatment should be avoided if at all possible. It is strongly recommended that emergency ECT is not given without a second opinion being obtained. If possible the matter should be discussed with the Chief Psychiatrist, or his authorised representative, before proceeding.
- 3.9.2 In an emergency situation, as described by the MHA, ECT can be given to a person regardless of that person's status under the MHA, or to a mentally impaired accused who is in an authorized hospital, without his or her consent.
- 3.9.3 Emergency Psychiatric Treatment can only be given '*to save the person's life, or to prevent the person from behaving in away that can be expected to result in serious physical harm to the person or any other person*' (s.113, MHA).
- 3.9.4 The treating psychiatrist may order the treatment without consent of the person however consent should be sought.
- 3.9.5 When emergency ECT treatment is ordered it is the duty of the person giving the treatment to record the: time, place and the circumstances; why the treatment was given; the name of the person receiving the treatment, and, the names of the persons involved in giving the treatment.



- 3.9.6 Each time an emergency ECT treatment is given the Mental Health Review Board must be sent a report in which there is the information that is required to be recorded under Section 115(a) of the MHA. The Office of the Chief Psychiatrist must also be advised.

3.10 Informed Consent In Relation To Children And Adolescents.

- 3.10.1 An adolescent is a person between the ages of 14 and 17 and a child is a person below the age the 14.
- 3.10.2 ECT for a child or adolescent is not a common occurrence. It is recommended that, in addition to any other steps taken, the Chief Psychiatrist is also consulted and advice obtained prior to proceeding.
- 3.10.3 An adolescent who is a competent minor would usually be considered able to give consent on his or her own behalf. The usual requirements for informed consent will then apply.
- 3.10.4 If a child or adolescent has requested treatment, and, in the opinion of the treating psychiatrist, appears to fully comprehend the nature and consequences of that treatment, then the doctor is entitled to assume that the child or adolescent has the requisite capacity to consent or decline treatment.

A child or adolescent achieves this capacity to consent (on his or her own behalf) not when the child or adolescent reaches a particular age, but:

"when the child or adolescent exhibits maturity in their behaviour sufficient to regard them as functioning at an adult level of decision making" (p 32, The Way Forward, Recommendations of the Review of the Mental Health Act 1996).

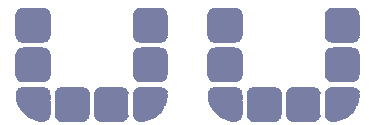
Young people who are mature enough to make their own health care decisions are entitled to make those decisions without parental interference, provided that the proposed health care is deemed to be in their best interests.

- 3.10.5 The complexity of the proposed procedure is of importance in determining whether a child or adolescent has, in the relevant instance, sufficient maturity to consent. The treating psychiatrist must make this decision.

In general, the younger the person is, the more likely it is that the person lacks the maturity to make his or her own decision.

Once a treating psychiatrist decides that a child or adolescent is competent to consent to treatment on their own behalf, that child's or adolescent's rights to confidentiality must be respected, and, permission must be obtained before the proposed treatment is discussed with another person, including a parent or guardian.

- 3.10.6 If in the opinion of the psychiatrist the child or adolescent is not able to consent or refuses consent then the only option other than Emergency



Psychiatric Treatment is to make the person an involuntary patient if they meet the criteria under section 26 of the MHA. Parents and/or guardians are not able to give consent to ECT on behalf of another person.

3.11 Repeat Or Renewed Informed Consent

3.11.1 Generally patients respond in 6-12 treatments for an index course. In certain cases, patients may require a substantial number of treatments before improvement is seen. The number of treatments to be prescribed should be determined by clinical need on a case-by-case basis and reviewed on a continuing basis depending on the clinical response. Single treatments may be prescribed with 12 being the maximum number of treatments that should be prescribed at a time.

3.11.2 Before each treatment, in a course of ECT, it is necessary to re-affirm the patient's understanding of the rationale for the treatment and to confirm their continuing consent.

If, after one or more treatments, a voluntary patient refuses to continue or withdraws their consent, then ECT cannot be administered. Once informed consent is withdrawn, treatment cannot be recommenced without further consent being obtained. Clinicians must ensure informed consent is confirmed prior to each treatment.

3.11.3 If a patient does not show significant response after 12 treatments of an index course, another psychiatric opinion should be sought at that time regarding the appropriateness of continuing the therapy. It is recommended that another psychiatric opinion should be considered if the patient shows no response after a lesser number of treatments

3.11.4 It is recommended, for maintenance ECT, that although consent is confirmed prior to a treatment, renewed consent is obtained after either 3 months, or every 12 treatments, whichever is less. This should be established policy by each hospital.

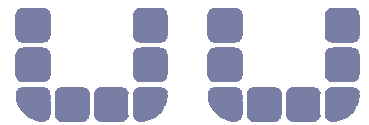
3.11.5 If there is a change in the patient's legal status, consent should be re-sought.

3.12 Duration Of Informed Consent

3.12.1 If there is a delay in the commencement of treatment, which is greater than seven (7) days from the date of the patient's consent to treatment then the consent must be renewed and that renewal document placed in the patient's medical record.

3.12.2 The treating psychiatrist should also be mindful of any changed circumstances, which may require more frequent discussion regarding material risks.

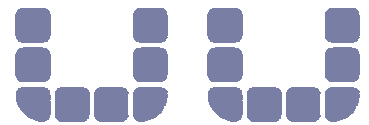
3.13 Information For And Discussion Of Informed Consent



- 3.13.1 Every person, whether voluntary or involuntary, for whom ECT is proposed must be given information about the treatment and it is the responsibility of the treating psychiatrist to ensure that patients are advised of their rights.
- 3.13.2 Patients prescribed ECT must be provided with specific written information about the treatment that they can take away and study at their leisure. This information should be written in clear and concise language (and where necessary in a language that the patient is familiar with) that outlines those risks to which the doctor considers a patient may attach significance. The ECT pamphlet developed by the Office of the Chief Psychiatrist is available in 15 community languages.
- 3.13.3 There are three different types of information that should be given to all patients in proposing a recommended course of ECT-
- a) A standardised general information package about ECT (eg *Electroconvulsive Therapy - Information about the treatment and your rights under the Mental Health Act 1996*);
 - b) A list of recommended ECT information resources, including Internet sites, books and videos;
 - c) A standardised hospital-specific information package about practical issues surrounding the administration of ECT.
- 3.13.4 Patients in the hospital setting should be able to access this information readily.
- 3.13.4 Information given to patients should allow them to make an informed decision. They must be given information about ECT in general which describes how the treatment is provided in a particular treatment setting., The information must be presented in a way that is sufficiently clear for them to understand, given their educational backgrounds and learning styles.
- 3.13.6 It is important that both written and verbal information is given. Once a patient has had time to study the written information further discussions may take place. Wherever possible written information should be available in the language the patient uses, or an interpreter provided to interpret the document for the patient.
- 3.13.7 Where patients are able to give informed consent to ECT and if they permit it, the family, or appropriate other, should be involved in receiving information about the treatment

3.14 Discussion

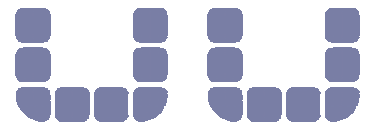
- 3.14.1 A medical practitioner's duty to disclose material risks, and obtain a patient's consent for ECT, is a continuing obligation. They must directly communicate information orally to the patient. Initial discussions should occur some time before the proposed treatment, preferably at the time the decision for treatment is made. Follow up discussions should occur as close as is reasonably practicable to the commencement of the treatment process.



- 3.14.2 While clinicians see ECT as a valued and effective treatment for some forms of mental illness, there are some patients and/or their carers who will have doubts about whether it is a humane or appropriate form of treatment. Some patients and their families may experience a sense of shame because of the social stigma that they associate with ECT. For these reasons, special care is needed in talking to patients and their families about ECT.
- 3.14.3 Consultation between patient, family and doctor is essential before and during a course of ECT.
- 3.14.4 When discussing the issue with the patient, cultural issues that might impede understanding should be carefully considered. How much a patient wishes to know about ECT and how much a clinician discloses is variable. On both sides, a number of assumptions may be operating. Problems arise where the patient's and doctor's understanding and assumptions do not match, and particularly where the possibility of this mismatch is unrecognised and not dealt with.
- 3.14.5 The discussions with the patient should include:
- a) an explanation of the nature of the patient's condition;
 - b) the rationale for the proposed procedure or treatment;
 - c) a clear explanation of the proposed treatment along with sufficient information to enable a balanced judgment to be made;
 - d) a clear explanation of the risks involved;
 - e) information regarding electrode application;
 - f) the expected benefits;
 - g) alternative treatment options (including the likely results of no treatment);
 - h) clear explanation of the possible side effects;
 - i) frequency of treatment;
 - j) the time involved in the procedure;
 - k) the likely recovery period;
 - l) any costs involved including out of pocket expenses;
 - m) any follow up care that may be required.
- 3.14.6 Requests for further information or specific anxieties expressed by the patient will require full and frank answers and further discussion. A patient should be advised of the inability of the treating psychiatrist to guarantee the results of the treatment or procedures in any individual case.
- 3.14.7 Additional discussions can be with medical or nursing staff provided those practitioners who engage in discussions with the patient as to the material risks inherent in ECT are sufficiently knowledgeable about the procedure to adequately communicate to the patient the risks, benefits and alternative treatments.

3.15 Documentation Of Informed Consent

- 3.15.1 It is necessary for all health care professionals involved in the process of obtaining informed consent to document in the patient's medical records what information has been given, and what the outcome of the discussions have been regarding consent to, or rejection of, the treatment.



3.15.2 Treating psychiatrists should record in the patient's medical record matters which have been discussed, including any questions asked by the patient and the answers provided to those questions. Requests for further information or specific anxieties expressed by the patient should be carefully documented.

3.15.3 All of the patient's questions must be answered, but not necessarily documented.

The fact that the patient has received written information or watched a video should be documented. Simply obtaining a patient's written consent does not mean that the legal duty towards a patient to explain all material risks has been fulfilled.

All the steps to protect patient's rights must be documented in the patient's medical record prior to ECT commencing. Involuntary detained patients and mentally impaired accused who are in an authorized hospital may request an interview by another psychiatrist who has not considered the matter before. Involuntary patients may apply for a review by the MHRB.

3.15.4 If a patient refuses ECT then this refusal should be clearly documented.

3.15.5 The important part of informed consent is the interactive informational process and its documentation.

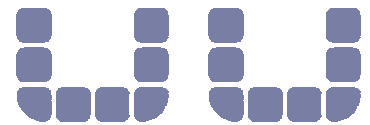
3.15.6 At the conclusion of the discussions with the patient, if the patient is willing to consent to the treatment, the patient's consent should be documented in an appropriate written form (Recommended consent form- Appendix).

3.15.7 A patient's consent should be obtained on a procedure specific ECT consent form. This form should also incorporate the consent to anaesthesia and to the administration of a muscle-relaxing agent.

3.15.8 A signed consent form must be obtained from the patient at the beginning of each course of treatment. The validity of the consent must be reaffirmed prior to each treatment session in the course of treatments.

3.15.9 Consent forms should include:

- a) a definition of ECT;
- b) the patient's name and signature;
- c) information about the proposed treatment;
- d) the date that the patient specifically consented to the treatment or procedure together with the date that the document was recorded if this is different from the date of consent;
- e) an attached list of ECT specific information that was provided to the patient in an appropriate form by way of pamphlets etc;
- f) the name of the treating psychiatrist who disclosed the relevant risks and information and who obtained the patient's written consent (with the aid of interpreting services, if required);
- g) the number of treatments proposed;
- h) acknowledgement that consent to ECT is also an understanding of the risks associated with anaesthesia (additional anaesthesia form required).



- 3.15.10 The patient's treating psychiatrist or registrar or medical officer should witness the signing of the consent form by the patient.
- 3.15.11 For involuntary patients, or mentally impaired accused who are in an authorized hospital, the treating psychiatrist recommending the ECT and the second psychiatrist recommending or not recommending ECT must both complete the appropriate section of the consent form and enter details of this decision in the patient's medical record. This process applies to all involuntary patients, or mentally impaired accused who are in an authorized hospital, regardless of the fact that they are willing to consent to treatment. This process does not mean that in relation to a detained patient or mentally impaired accused in an authorized hospital the patient has exercised his or her right of having a second opinion from another psychiatrist
- 3.15.12 To assist clinicians in the process of improving the practice of informed consent to ECT, the Department of Health (DoH) has developed standardised procedure-specific consent forms covering ECT. It is recommended that the procedure specific form developed by the DOH be used for this purpose (Appendix- Recommended Consent Form).
- 3.15.13 The psychiatrist of the team from whom the patient is receiving treatment has overall responsibility for ensuring that information is available and provided to the patient on the proposed treatment or procedure and for ensuring that processes are in place to ensure that the patient's informed consent has been obtained for the treatment.

3.16 Policies And Procedures For Informed Consent

- 3.16.1 Procedure-specific information detailing ECT effects, side-effects and other relevant information should be developed by each health service. The information should be accessible and provide guidance for staff in the requirements for informed consent. Once adopted, health service patient consent policies should undergo periodic review and update by the health service.

3.16.2 Policies and procedures should include:

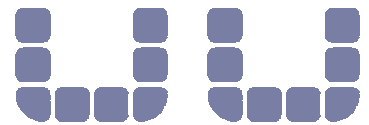
- 3.16.2.1 Accountability in relation to the Psychiatrist, Registrar/Psychiatric Medical Officer/ Medical Officer, Registered Nurse/Enrolled Nurse.

This includes:

- a) who is responsible for providing information;
- b) who is responsible for obtaining informed consent;
- c) who is responsible for checking valid informed consent is present at time of treatment;
- d) any changes to that consent.

- 3.16.2.2 Information: What information is available to the patient, eg written/video/computer.

- 3.16.2.3 Consent:



- a) the process to be followed in obtaining informed consent;
- b) whether consent is obtained for each treatment or for a course of treatments;
- c) consent in an emergency situation.

3.16.2.4 Definitions of ECT and course of ECT.

3.16.2.5 Documentation:

- a) forms to be used;
- b) location of forms including consent and reports to MHRB;
- c) medical record requirements, eg evidence that informed consent been obtained/refused.

3.16.2.6 Legislation:

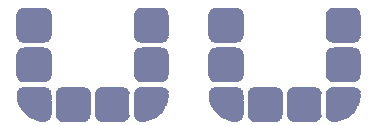
- a) requirements for the patient to be informed;
- b) emergency psychiatric treatment;
- c) process for involuntary patients;
- d) protection of patient's rights.

References

Government of Western Australia (1996) West Australian Mental Health Act 1996, State printers, Perth

Office of the Chief Psychiatrist (2004) Clinicians Guide to the Mental Health Act 1996 3rd Edition, Health Department of Western Australia, Perth

Health Department of Western Australia (2000), Operational Circular 1347/00. Guidelines for Health Practitioners: Patient Consent to Treatment and Disclosure of Material Risks, Perth.



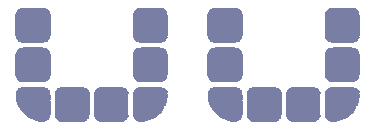
4.0 TECHNIQUE, EQUIPMENT AND EVALUATION

4.1 Setting: Best practice would indicate that-

- 4.1.1 Dedicated ECT Suites should be provided that comply with current DoH design guidelines. A typical ECT Suite would include areas for:
 - a) Patient waiting and interview;
 - b) Patient pre-procedure preparation;
 - c) Patient treatment;
 - d) Recovery areas;
 - e) Associated support facilities (Linen storage, toilets, refreshments, emergency trolley etc);
 - f) Staff areas.
- 4.1.2 Where clinical need dictates, or where the number of ECT procedures performed is too small to require a dedicated ECT Suite, ECT can be offered in procedure rooms within operating suites, or within an operating room itself.
- 4.1.3 Essential elements to any site include the provision of privacy for the patient receiving ECT, adequate space for the anaesthetic and ECT equipment, as well as for staff to assist with the procedure and/or any medical emergencies. ECT should be carried out close to the necessary resources in case of a medical emergency.

4.2 Patient Preparation

- 4.2.1 Protocols should be developed that ensure both inpatients and outpatients are correctly prepared for ECT. Consideration should be given at all times to the patient's dignity, comfort and safety. Protocols should ensure that:
 - 4.2.1.1 Safety is assured
 - a) Patient's initial weight has been recorded on the ECT Checklist;
 - b) Patient's have remained nil by mouth (NBM) prior to the procedure. (See 9.0, "Anaesthesia Guidelines," on oral intake.);
 - c) Pre-ECT medications (if ordered) and most routine a.m. medications are received by the patient 1 hour before ECT, with sips of water if oral;
 - d) Patient's pre-ECT vital signs and, if diabetic, blood sugars, are recorded on their chart before each treatment;
 - e) Outpatients have arranged to be collected at the completion of recovery from treatment.
 - 4.2.1.2 Dignity for the patient
 - a) Patient's remove their jewellery, hair accessories, nail varnish, etc. Wedding rings can be taped over if the patient does not wish to remove it. Jewellery etc should be securely stored until the patient requests its return;
 - b) Patients retain their contact lens or glasses, hearing aids, and dentures until immediately prior to the ECT procedure. They should not be removed until the patient's privacy and dignity can be assured. These items must be kept safe during the procedure but are best kept with the patient to aid communication.



4.2.1.3 Comfort

- a) Patients are advised to void his or her bladder and bowels prior to ECT;
- b) Patients who suffer from incontinence, bladder or bowel instability are provided with an appropriate incontinence aid;
- c) Patients have been advised that clean hair will improve the outcome of the procedure;
- d) Patients have access to their belongings once the procedure is complete.
- e) The medical practitioner administering ECT should be alerted to any change in medication and patient status if notable since the last treatment.

4.3 Medications during ECT

4.3.1 A careful review of medication is essential before starting a course of ECT.

4.3.2 Existing medications for medical illness can usually be continued throughout the ECT course and given one hour before the ECT with sips of water, or after the treatment when the patient is fully awake.

4.3.3 Diabetic patients should be given priority if several patients receive ECT on the same day. Insulin and hypoglycaemic agents are usually given after the treatment.

4.3.4 Medical consultations may be requested for patients with co-morbid conditions relevant to ECT.

4.3.5 Consideration should also be given whether to continue psychotropic medications throughout a course of ECT. As a general rule, it is preferable to reduce or discontinue as many medications as possible to decrease the risk of delirium and minimise cognitive side effects. This is particularly applicable to those medications having anticholinergic effects.

4.3.6 On the other hand, for patients with bipolar disorder, it may be necessary to maintain mood stabilisers throughout the ECT course; for example, to reduce the risk of iatrogenically shifting a patient's depressed state into mania.

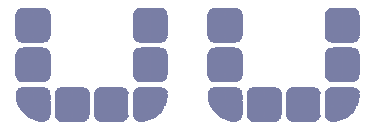
4.3.7 No substantial evidence currently exists to support that the combined use of ECT and medications improves the efficacy of ECT in symptom reduction.

4.3.8 It is important that any change to regular medication and any PRN medication given during a course of ECT are charted in the ECT documentation and that information should be conveyed to the ECT Suite.

4.4 Specific Medications

4.4.1 ANTIDEPRESSANT MEDICATIONS

4.4.1.1 Selective Serotonin Reuptake Inhibitors (SSRIs) are commonly administered throughout the ECT course. Conflicting reports exist about the safety issues. Some point towards a possible improved result when



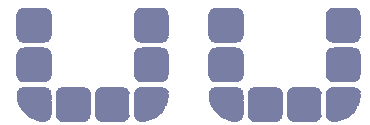
combined with ECT, some report no improved results, and others suggest both shortened seizure length and prolonged seizure length.

Discontinuing SSRIs before ECT may be recommended for patients at higher risk of post-ECT delirium (ie, those on multiple medications, the elderly, or those with co-existent dementia). If SSRIs are continued, the anaesthetist should be informed and alerted to the possible risk of a prolonged seizure.

- 4.4.1.2 Monoamine Oxidase Inhibitors (MAOIs) may be cautiously continued, although little data exists on their effects. There is an increased risk of hypotension, bradychardia, and post-treatment confusion. There should be caution with concomitant use with MAOIs in that adrenaline is contra indicated, as are any direct or indirect acting sympathomimetics during the ECT.
- 4.4.1.3 Tricyclic Antidepressants (TCAs) are likely safe to continue. TCAs (e.g., amitriptyline, imipramine, trimipramine, clomipramine) with stronger anticholinergic side effects have increased risk of creating post-ECT confusion, and should be reduced or discontinued if possible.
- 4.4.1.4 Bupropion Hydrochloride
No data exists about the safety of bupropion (Zyban) during ECT. Due to case reports of spontaneous seizures, consideration should be given to discontinuation.
- 4.4.1.5 Others (e.g., Venlafaxine, Metazapine, Reboxetine)
No current data exists. However consideration should be given to the reduction of high dosages during a course of ECT.

4.4.2 MOOD STABILISERS

- 4.4.2.1 Lithium Carbonate
Some authorities suggest that the use of Lithium should be ceased for the course of ECT if possible due to increased risk of delirium, prolonged seizures, and possible decreased seizure thresholds. Lithium may have to be continued in patients with refractory mood disorders. Lithium should be withheld the night before and the morning of ECT, and given post-ECT.
- 4.4.3 ANTICONVULSANT AGENTS
(Carbamazepine, Valproic Acid, Gabapentin, Lamotrigine, Phenytoin, Topiramate)
- 4.4.3.1 If at all possible, anticonvulsants should be ceased prior to a course of ECT. Reports point towards decreased seizure duration, higher seizure thresholds, and possible decreased efficacy of ECT for improving mood symptoms when they are used concomitantly with ECT. If they are being used as mood stabilisers, doses should be withheld the night before and the morning of ECT.



4.4.4 ANTIPSYCHOTIC AGENTS

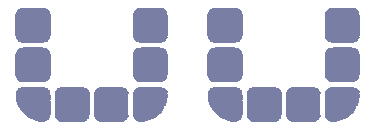
- 4.4.4.1 Typical antipsychotics lower seizure threshold, but as with TCAs, may increase post-ECT delirium if they have a significant anticholinergic profile (e.g., chlorpromazine, trifluoperazine, thioridazine, and fluphenazine). Little information exists about the safety or efficacy of combining ECT with novel antipsychotics.

4.4.5 BENZODIAZEPINES

- 4.4.5.1 If at all possible, Benzodiazepines should be reduced or ceased during a course of ECT.
- 4.4.5.2 Benzodiazepines are commonly used in a variety of psychiatric illnesses, and have a major effect on ECT. They clearly increase seizure threshold. Many reports also define their role in lessening seizure efficacy for mood symptoms.
- 4.4.5.3 If the indications for benzodiazepine use cannot be managed by other substitute agents (e.g., antipsychotic agents), then Benzodiazepines with medium half-life (i.e. 8 hours) should be used, and withheld the night before if possible and on the morning of ECT.

4.5 ECT Machines

- 4.5.1 The ECT machine must be equipped to provide EEG monitoring of the seizure. All ECT machines must be registered with the Therapeutic Drugs Administration. Machines are to be reviewed against current research evidence and updated when no longer able to meet best practice requirements.
- 4.5.2 ECT Equipment
Brief pulse ECT machine with a wide output range and appropriate accessories, including:
- a) Electrodes;
 - b) Patient stimulus cable, +/- hand-held paddles;
 - c) EEG cable;
 - d) EEG disposable electrode pads may be preferred;
 - e) EEG recording paper;
 - f) Adjustable headbands required if disposable pads are to be used;
 - g) Bite-blocks;
 - h) Tube of electrode gel;
 - i) Agents for cleaning skin (consider the use of alcohol and abrasive conductant gel);
 - j) 2 x 2-inch gauze (for cleaning skin);
 - k) Bottle of buffered bleach (for cleaning equipment in MRSA-positive patients).
- 4.5.3 Skin Preparation- Careful skin preparation is essential and each service should have appropriate protocols for preferred practice.
- 4.5.3.1 For electrical current from an ECT device to reach the brain, it must flow between two metallic electrodes. Since blood is a conductor, the brain's



vascular system carries the current. Skin inherently resists electrical current, so careful site preparation is a key component in ECT delivery. Inadequate cleansing or sloppy use of conductant gel can result in an inadequate or aborted seizure, and in skin burns.

4.5.3.2 Skin or scalp preparation involves-

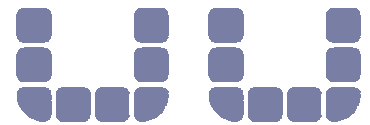
- a) Hair and scalp should be clean and as free from skin or hair care products as possible;
- b) Patients are requested to shampoo their hair the night before with particular emphasis on thorough rinsing to remove all shampoo from scalp and hair;
- c) Thoroughly cleansing the chosen electrode sites with alcohol-soaked gauze squares to remove oil, makeup, gel from previous treatments, hair sprays, dead skin cells, etc. Note that shaving the hair is not required. If a parietal site is used for unilateral ECT, hair can be parted and cleaned as described;
- d) Massaging in a circular motion an abrasive conductive such as used in EEG labs into the skin with fingertips;
- e) Skin should only be slightly abraded with, for example a Western Australian locally made product of finely ground grey pumice in a non conductive gel gently rubbed into the skin with a cotton swab;
- f) Removing the abrasive gel with a cloth or dry gauze (not with alcohol), to create a dry, clean, mildly abraded area;
- g) Applying a conductive ECT gel (non-abrasive), onto the electrode surfaces;
- h) Firmly pressing the electrodes against the skull, which is imperative to minimise impedance.
- i) Impedance should be measured (some ECT machines do this automatically) and should be less than 3 kilohms.

4.6 Electrodes and Placement

4.6.1 Adhesive Electrodes If self-adherent electrodes are used then saline should be used for skin preparation rather than alcohol.

4.6.2 Stimulus Electrode Placement

Electrode placement continues to be controversial and under active research and debate. It is generally accepted that bilateral placement is more effective than unilateral placement, but that the latter creates less cognitive side effects. Of interest is the emergence in the past few years of new electrode sites. Treating psychiatrists and medical staff administering ECT should follow changing recommendations as they develop, and familiarise themselves with the benefits and detriments of the various options.



4.6.3 Unilateral Placement

The d'Elia position has become the recommended electrode placement site for unilateral, non-dominant hemispheric ECT:

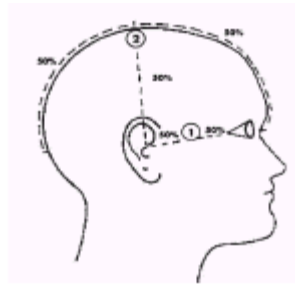


Figure 1: The midpoint of electrode one is placed 3 cms above the midpoint of an imaginary line drawn between the external canthus of the eye, and the tragus of the ear (i.e. the bottom edge of a 6 cm electrode is on the line). The second electrode is similarly placed 3 cms on the right-hand side of two imaginary intersecting lines; the first drawn between the two tragi of the ears; the second connecting sagittally the inion with the nasion. (APA Task Force on ECT, 2001)

4.6.4 Bilateral Placement:

The most widely used bilateral electrode placement has been bitemporofrontal. Electrodes are placed over both temples, as in Figure 1, Position 1, bilaterally.

4.6.5 Bifrontal Placement

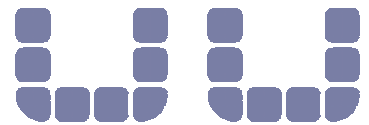
Bifrontal placement with electrodes close together appears to result in less clinical efficacy than the bitemporofrontal placements, albeit with less cognitive effects. A study by Lawson et al (1990) suggests bilateral strategies with wider bifrontal placements, alternatively, a Left Anterior Right Frontal position - the so-called "LART" was introduced by Schwarz (1994). Early work indicates that effective ECT may be deliverable closer to seizure threshold with bifrontal placement than with either bilatemporal or unilateral positioning.

4.6.6 LART (Left Anterior Right Frontal) Placement

Although not in general use the rationale for this electrode site option is that the left anterior electrode lies near the medial region of the frontal lobes, which is thought to be the cortical region most sensitive to seizure induction by electricity. It is also believed that one of the reasons these last two positions are more efficient in transmitting current is that these placements avoid skull sutures, and thereby avoid the concentration of electrical current as it enters the brain. The end result is fewer cognitive side effects.

4.7 Stimulus Dose Strategies

- 4.7.1 Since the late 1980s, it has become apparent that the degree to which the electrical dose lies above seizure threshold has an impact on the efficacy of ECT, especially for unilateral treatment. A stimulus delivered barely above seizure threshold can, in unilateral ECT, create a grand mal seizure, which will



have little effect on improving target symptoms (i.e., depression). A stimulus that is markedly supra-threshold improves symptomatology, but also carries with it significant cognitive side effects.

- 4.7.2 From this have arisen differing approaches to dosing strategy. The “titration method” involves stimulating a patient with a gradually increasing electrical dose, starting at a low dose to determine threshold for an induced seizure. The dose increases are delivered until an adequate seizure is obtained. “Adequacy” is determined via EEG morphology from the EEG readout delivered by the ECT machine.

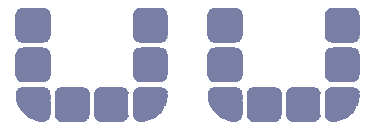
The treatment is delivered at 150% of the seizure threshold for bilateral treatment and at least 250% of threshold for unilateral treatment.

From then on, the electrical dose for subsequent treatments is either maintained or gradually increased, using EEG criteria as well as clinical response as a guide. (See the following section, “Seizure Monitoring.”)

- 4.7.3 Inherent to this method is the finding that seizure threshold varies from patient to patient. Concern exists that if all patients, regardless of age, gender, diagnosis, medications, or number of previous ECT treatments, received the same dose, with the same electrode placement, some patients (for example, those with high seizure thresholds) will receive sub-optimal treatments. Others with low thresholds will be left with excessive cognitive effects. Various protocols are available for the titration method dose scheduling (Beyer, Weiner & Glenn, 1998).
- 4.7.4 An approach where titration cannot be applied (severity of illness requires immediate effect of ECT) uses a formula to guide dosage using the patient’s age.

Starting treatments with half the patient’s age is recommended for bilateral ECT and at about the patient’s age for unilateral ECT (Petrides & Fink, 1996). For example, if a patient is 60 years old, ECT is initiated at 30% of the maximum output deliverable by the device, then gradually the dose is increased as the ECT course progresses. Starting ECT at three-quarters of the patient’s age is also possible.

- 4.7.5 The preferred methodology is of titration to establish the threshold of inducing a seizure which is clearly a progression from recruitment phase to high amplitude delta or theta discharge and which then slows over the course of the seizure. It is preferable that there should also be evidence of spike and wave actually in the course of the recording for evidence that a seizure has been achieved.
- 4.7.6 Subsequent settings (initial treatment dosage) are at least 250% of the established seizure threshold for unilateral treatments and 150% for a bilateral treatment.
- 4.7.7 ECT treatments increase the seizure threshold and this effect (anticonvulsant effect) is progressive and cumulative. To continue to achieve a moderate



supra-threshold stimulus over a course of ECT it may be necessary to increase the stimulus dose.

It is recommended that the stimulus dosage is increased where unexpected difficulty is encountered (impedance has not increased dramatically and the same care is applied to ECT stimulus delivery) in achieving adequate seizure activity or seizure length drops dramatically.

- 4.7.8 Some practitioners offer high, fixed-dose, right unilateral ECT for all patients. This is not a preferred practice.
- 4.7.9 Shortened pulse width (0.5 msec or less) and longer pulse trains have now been linked with increased efficacy in research studies. For doses below 100% these treatments with the shortest pulse width and longest delivery of energy are recommended as routine. Some of the machines are able to deliver energy with the lowest pulse width by simply setting to the relevant program.

4.8 Seizure Monitoring

- 4.8.1 Central to the delivery of safe and effective ECT is the assurance that-
 - a) A seizure has indeed occurred;
 - b) The seizure is generalised to both hemispheres;
 - c) The seizure is of adequate intensity to actually bring about symptom recovery;
 - d) Unnecessary cognitive side effects are avoided.
- 4.8.2 Recent research in Western Australia (unpublished at time of development of current guidelines) has clearly established preferred EEG recording sites for both unilateral and bilateral ECT.

These are left and right para-sagittal sites. These sites give clearest recordings of characteristic EEG evidence of seizure activity despite significant differences in the propagation of seizures between individuals and between unilateral and bilateral treatments.

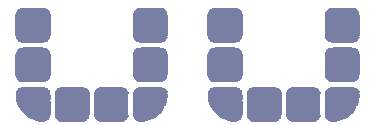
However, in recording of EEG activity it is also vitally dependent to establish that the recording site is clean and dry using gentle abrasion as described previously and appropriate electrode gel with fixed electrode cups. Impedance testing must be similarly used ensuring this falls between 1 and 3 kilohms to be accepted as satisfactory for monitoring of seizure activity.

- 4.8.3 Several parameters are observed to help with these clinical judgements:

4.8.3.1 EEG Adequacy

It was previously believed that seizure length in ECT reflected seizure adequacy. It was thought a seizure should be at least 25 seconds long in order to be effective. It is now clear that seizure time is less important than other aspects of the seizure. Although many factors can affect seizure expression, current evidence suggests that the following are associated with better clinical outcomes-

- a) Higher amplitude spike and wave activity;
- b) Sharp post-ictal suppression.



4.8.3.2 Ictal motor activity is desirable in parallel with EEG recording but not the preferred practice measure for seizure activity.

4.8.3.2 The motor component of a seizure can be monitored using the cuff method. The distal portion of a limb (preferably the ankle) can be blocked from receiving muscle relaxant by inflating a blood pressure cuff above the ankle to a pressure 100 mm Hg above the systolic pressure before ECT (i.e., 250 mm Hg).

The cuff should be placed on the same side of the electrodes for unilateral ECT to ensure generalisation. This technique is performed before the delivery of the muscle relaxant. The cuff should be deflated immediately following the seizure to avoid ischemia.

4.8.3.3 The benefit of this method is evidence of a generalised seizure in the event of a faulty EEG. Limitations are that-

- a) Tonic/clonic seizure activity stops before seizure activity ceases in the brain, i.e., motor component timing is not useful in measuring the true total seizure time;
- b) This technique is not appropriate for patients with skin or some musculoskeletal diseases such as severe osteoporosis, deep vein thrombosis, and sickle cell disease;
- c) Myogenic activity may be an over or underestimate central seizure activity (more usually underestimate);
- d) There is disagreement whether all clonic activity across all sites should be included as evidence for central seizure activity.

4.8.4 Cardiovascular Response

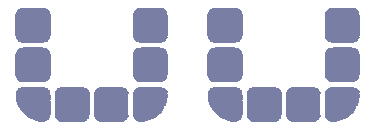
ECT affects the cardiovascular system. With the initial parasympathetic and then sympathetic outpouring that results from the seizure itself, brief but significant falls and rises in blood pressure and heart rate occur. Continuous ECG monitoring as well as repeated blood pressures and oximetry before, during, and after the procedure are of importance.

4.8.5 Missed or Inadequate Seizures

4.8.5.1 After a stimulus in ECT, it is possible that no seizure is elicited, or that a brief response (less than 10 seconds) results. It is unlikely that most patients can expect to benefit from a seizure of this short duration, although it is described that some inherently undergo brief seizures (e.g., 17 sec.), with nevertheless clear and progressive recovery.

4.8.5.2 Possible causes of missed or inadequate seizures are-

- a) Excessive impedance from poor skin contact;
- b) Hypercarbia from inadequate ventilation;
- c) Hypoxia;
- d) Dehydration;
- e) Medications (typically benzodiazepines and anticonvulsants);
- f) Insufficient stimulus;
- g) High doses of anaesthetic agents.



4.8.5.3 Possible remedies for missed or inadequate seizures are to

- a) Review the “dynamic impedance” reading, which is elicited by the ECT device. If it is too high, examine and correct skin preparation, gel application, and/or electrode positioning;
- b) If not too high, and after weighing up anaesthetic risk issues, restimulate at 50 - 100% above the original dose;
- c) If a seizure is missed, wait 30 seconds before restimulating to ensure a delayed response will not occur (rare);
- d) If a seizure is inadequate, wait 45 seconds before restimulating to overcome the refractory period;
- e) A third stimulus under the same anaesthetic may be tried at a higher dose still, after another 45 second time lapse, and after it is ensured that no additional anaesthetic and muscle relaxant needs to be given;
- f) No more than 3 stimuli per patient should be delivered during an ECT treatment session as side effects including post ECT confusion and memory deficits increase with the number of subconvulsive stimuli without any benefit to the patient;
- g) Where 3 treatments are required the third stimulus should be significantly more as no further treatments can be given in the session;
- h) Review the other factors above, such as correct hydration and electrolyte balance. Oxygenate adequately and hyperventilate prior to the next stimulus. If possible reduce or discontinue medications that may hinder the ECT;
- i) Note that the use of caffeine or theophylline are contraindicated.

4.8.6 Prolonged Seizures

4.8.6.1 Prolonged seizures may occur with ECT with intervention required if seizure activity occurs beyond 120 seconds.

4.8.6.2 Prolonged seizures may lack a motor component; this is one of the most compelling arguments in favour of EEG monitoring in ECT.

4.8.6.3 Possible remedies are to-

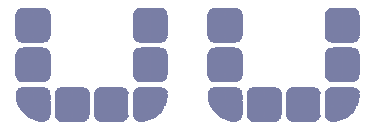
- a) Abort the seizure with an anticonvulsant agent such as iv midazolam, iv thiopentone or propofol;
- b) Intubate if necessary.

4.8.6.4 Prolonged seizures lasting longer than 120 seconds, on EEG criteria, should be terminated. The anaesthetist should be alerted after 90 seconds of fitting.

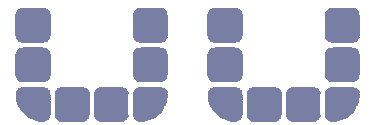
4.9 Evaluation of Patients during Courses of Treatment

4.9.1 The patient’s symptoms should be documented before a course of treatment in order to be able to assess progress in specific target symptoms during treatment.

4.9.2 A baseline clinical global impression or the use of a rating scale like the Hamilton Rating Scale for Depression may be helpful.



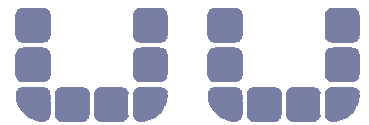
- 4.9.3 A written protocol should be developed at each ECT service that determines how ECT is practised within that Unit.
- 4.9.4 ECT clinical assessments are to be performed and documented. As a guide they should be carried out before the course of ECT, after each treatment, weekly during the course of ECT and at the end of the course.
- 4.9.5 Best practice would see:
- a) the treating psychiatrist review the patient prior to ECT commencing;
 - b) the treating psychiatrist review the patient the day after each treatment;
 - c) the treating psychiatrist or the consultant psychiatrist in charge of ECT service review the patient each week to set parameters for the following week's ECT.
- 4.9.6 Attention to side-effects, including cognitive side-effects should include their careful documentation.
- 4.9.6 The total number of ECT treatments required by a patient should be guided by the patient's degree and rate of clinical improvement, and the development and severity of cognitive adverse effects. The frequency of ECT treatments should be guided by the severity of illness and the development and severity of adverse effects.
- 4.9.7 The principle of consultation between the treating psychiatrist and medical staff administering ECT should be clearly established in any written protocol.
- 4.9.8 Two-way communication between the ECT staff and the treating clinical team is essential. This will depend on local circumstances, but developed protocol should include the communicating and documentation of all relevant items.
- 4.9.9 Frequency and Number of Treatments**
- 4.9.10 Single treatments are not recommended but currently under the MHA ECT may be given on this basis as an emergency psychiatric treatment.
- 4.9.11 As ECT will not be classed as an emergency psychiatric treatment under the new MHA it is recommended that ECT is not prescribed, even as a single treatment, for this purpose.
- 4.9.12 It is usual practice to do 2 or 3 ECT treatments per week, administered on non-consecutive days. In a major depression, a course of ECT usually consists of up to 12 treatments.
- 4.9.13 One course may immediately follow another if clinically indicated with a second opinion and the necessary renewal of consent obtained.
- 4.9.14 The use of multiple ECT (the delivery of more than one adequate seizure per treatment session) is not acceptable.
- 4.9.15 For those patients who have improved with ECT treatments, the ECT treatment course should be ended or tapered as soon as it is evident that a maximum response has been attained.



- 4.9.16 If confusion or marked deterioration in cognitive functioning occurs associated with ECT, consider the following remedies-
- a) Review potential medical and medication causes;
 - b) Reduce treatment frequency (e.g., from 3 treatments per week to 1 - 2 treatments per week);
 - c) Review the stimulus dose;
 - d) Change electrode placement from bilateral to right unilateral;
 - e) Suspend treatments until cognitive functioning improves.
- 4.9.17 If there is a slow or minimal clinical improvement after 4-6 treatments, the indication for continued ECT should be reassessed. If the decision is to continue with ECT treatments, consideration should be given to optimise ECT technique by-
- a) Increasing the stimulus intensity;
 - b) Changing from unilateral to bilateral electrode placement;
 - c) Reducing or removing medication that may decrease response (e.g., benzodiazepines, and anticonvulsants);
 - d) Consider a change in anaesthetic technique.
- 4.9.18 If repeated courses of ECT are necessary, the cognitive effects associated with prior treatment courses should be taken into consideration. If cognitive deficits are persistent and severe, a cumulative effect can occur with subsequent ECT treatments, especially with bilateral electrode placement.
- 4.9.19 It is recommended that after 12 ECT treatments, a formal reassessment be done, including a second opinion.

4.10 Lack of Response to ECT

- 4.10.1 Patients should not be considered to be non-responders to ECT until they have had at least 12 treatments, and attempts have been made to optimise ECT response by-
- a) Reviewing the stimulus dose;
 - b) Changing electrode placement (eg unilateral or bilateral). Where any changes are proposed to electrode placement then this requires that the change is explained to the patient and a new consent form is signed;
 - c) Reducing or stopping medications that may effect response by effecting the seizure threshold (e.g., benzodiazepines, and anticonvulsants);
 - d) Changing medication strategies.
- 4.10.2 There are no agreed strategies in treatment choices for ECT treatment non-responders. When ECT is withdrawn further advice should be sought from appropriate experts in the management of the underlying disorder or with significant experience in ECT delivery.
- 4.10.3 The Chief Psychiatrist will develop an expert panel for consultation in these and other circumstances which warrant review by an expert panel to assist in ECT delivery and effectiveness. Please contact the Office of the Chief Psychiatrist for further advice.



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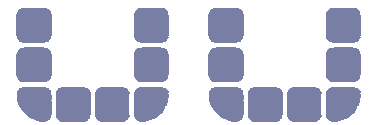
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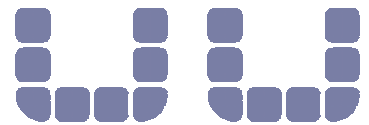
5.0 ADVERSE EFFECTS AND THEIR MANAGEMENT

5.1 Postictal Delirium

- 5.1.1 Some patients develop post-ictal delirium following ECT.
- 5.1.2 This is associated with marked agitation, disorientation, poor response to commands, and a sympathetic response. Whilst this appears to be idiosyncratic pre-existing cerebral impairment and lithium may increase risk for post-ictal delirium.
- 5.1.3 It may take patients 5 - 45 minutes to recover. They are often amnesic for the episode.
- 5.1.4 There may be a risk of injury to the patient or staff due to marked agitation or thrashing due to post-ictal delirium.
- 5.1.5 Depending on the severity of the symptoms, post-ictal delirium can be managed supportively by close nursing supervision, or pharmacologically, with intravenous or intramuscular benzodiazepine agents (e.g., midazolam).
- 5.1.6 The anaesthetist and psychiatrist should be involved in the immediate and subsequent management of significant post-ictal delirium.
- 5.1.7 If post-ictal delirium is recurrent or severe, it can be managed prophylactically with the use of the above agent after the fit has ceased.
- 5.1.8 A persistent post-ECT delirium may be observed in a small proportion of patients, in which case physical investigations should be considered. (American Psychiatric Association Task Force on Electroconvulsive Therapy, 2001)

5.2 Cognitive Changes

- 5.2.1 The presence and severity of changes in memory should be monitored during a course of ECT.
- 5.2.2 Information about memory can be obtained by-
 - a) Asking for the patient's opinion as to whether he or she has noticed any changes in memory. However asking the patient has been shown to be confounded by various issues and not to correlate with objective neuropsychological measures;
 - b) Simple bedside testing including checking orientation for person, place and time and informal assessment of antegrade and retrograde memory (with ECT being the time reference) by asking about distant memories, recent memories and memories which should have been laid down following the commencement of the course of ECT;
 - c) Formal neuropsychological testing is impractical in a day to day clinical setting and has the potential to be confounded by practice effects.



- 5.2.3 The Folstein Mini-Mental Status Examination (MMSE) is a useful test for the assessment of cognitive change in dementia and other syndromes and is used by some practitioners to monitor changes secondary to ECT treatment. However it is simply not sufficiently sensitive to reliably detect ECT memory changes even though they may be sufficient to cause significant functional impairment.
- 5.2.3 Assessment should be carried out before ECT and at least weekly throughout the index course. This may be best done by talking to the patient and other informants such as the ward staff and significant others. Any reported changes should be documented.

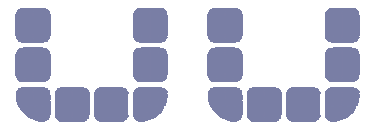
This process should be repeated until all report that memory is back to normal in the knowledge that there can be a persisting subjective sense of memory change which is not consistent with what is observed. Cognitive assessment should be performed whenever possible at least 24 hours following an ECT treatment.

- 5.2.4 If there is a substantial deterioration of cognitive functioning during an ECT course, the medical practitioner administering ECT should:
- a) Review the contributions of concomitant medications or the patient's medical status;
 - b) Consider changing from bilateral electrode placement to right unilateral electrode placement during treatment;
 - c) Consider decreasing the stimulus dosage;
 - d) Change the interval between treatments; for example, if treatment frequency started at 3 times a week, decrease it to 1-2 times a week;
 - e) Consider suspending a course of treatments;

If cognitive changes persist after completion of the course of ECT, a plan should be made for post-ECT follow-up, assessment and management.

5.3 Treatment Emergent Hypomania/Mania

- 5.3.1 A hypomanic or manic switch can occur during a course of ECT. Angst et al (1992) found that 12% of those diagnosed with endogenous depression and treated with ECT switched to hypomania.
- 5.3.2 In the group diagnosed with psychotic depression, 10% switched to hypomania with ECT, and in the patients with psychotic bipolar depression, 32% switched to hypomania with ECT.
- 5.3.3 The switch to mania or hypomania occurred more often in patients with bipolar, or with patients with a family history of bipolar disorder.
- 5.3.4 There are no present established treatment guidelines for treating hypomanic or manic symptoms that occur following ECT treatments. Strategies can range from-
- a) Stopping ECT and treating the manic symptoms with a mood stabiliser and/or antipsychotic;
 - b) Suspending further treatments and observing the patient;
 - c) Continuing ECT treatment to treat both the manic and depressive symptoms.



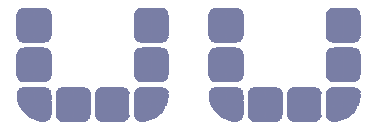
5.4 Other Adverse Effects

- 5.4.1 A number of immediate side effects, such as headache, myalgia, nausea and drowsiness can occur and should respond to symptomatic or supportive therapy.
- 5.4.2 Myalgia may also be associated with succinylcholine fasciculations or inadequate paralysis during the seizure. These possibilities should be discussed with the anaesthetist and steps taken to rectify the problem prior to further treatments taking place.
- 5.4.3 If there is any sudden onset of new risk factors, or worsening of the risk factors identified pre-ECT, these risk factors should be evaluated before the next ECT treatment. The patient's complaints concerning ECT should also be considered. Change in circumstances should result in reconsideration regarding issues of whether the patient is still willing to provide consent.

References

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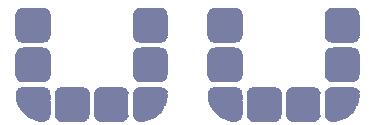
6.0 DOCUMENTATION OF THE COURSE OF ECT

6.1 Records In An Authorized Hospital

- 6.1.1 The person in charge of an authorized hospital must ensure that proper records are kept in line with Section 204 of the MHA and Mental Health Regulation 1997, no. 19.
- 6.1.2 In hospitals that are not authorized the Consultant Psychiatrist in charge of ECT services must ensure that proper records are kept. Appropriate policies are required to ensure adequate documentation of the practice of ECT.
- 6.1.3 Documentation is an important aspect of the provision of ECT for continued assessment and reassessment of the patient's progress, and to provide a guide for effective treatment.
- 6.1.4 The Consultant Psychiatrist has overall responsibility for the quality of ECT documentation.
- 6.1.5 Practitioners should record on the patient's medical record a clear and chronological account of matters which have been discussed, including any questions asked by the patient and the answers to those questions.
- 6.1.6 The ECT documentation should demonstrate a full physical and psychiatric review of the patient prior to ECT being administered and the process by which informed consent to treatment was obtained.
- 6.1.7 All the steps taken to protect patient's rights must be documented in the patient's medical record prior to ECT commencing.
- 6.1.8 Care should be taken to ensure that ECT documentation complies with the requirements of the MHA and other relevant legislation.

6.2 Before an Index ECT Course

- 6.2.1 The medical staff administering ECT should document the following items in the patient's medical records and the treating psychiatrist should confirm that they are documented-
 - a) Indications for ECT referral;
 - b) Assessment of benefits and risks;
 - c) Mental status, including target symptoms and base line cognitive functioning (e.g., Folstein Mini-Mental State Examination);
 - d) Signed consent form;
 - e) A recording of the process of establishing informed consent;
 - f) Physical examination and history within 7 days prior to commencing an inpatient course of treatment, and 7 days before the start of an outpatient course of ECT;
 - g) Details of all relevant medical information;



- h) Pertinent laboratory investigations. Although there are no routine requirements for investigations, specific patient and hospital investigations may be required, for example, EEG if requested by anaesthetist at a pre-procedure examination.

6.3 Before a Maintenance Series of ECT

- 6.3.1 Before beginning a maintenance series of ECT, the treating psychiatrist should confirm that the patient's medical record includes documentation of the following material-
 - a) Indications for maintenance ECT;
 - b) A signed consent form at least every 3 months or 12 treatments whichever comes first;
 - c) Details of the informed consent process.

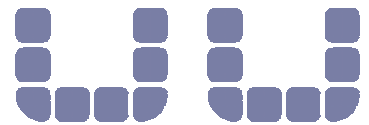
6.4 Between ECT Treatment Sessions (Index or Maintenance)

- 6.4.1 The treating psychiatrist should make a note in the patient's medical record at least weekly during an index ECT course.
- 6.4.2 The note should contain information about any therapeutic response and adverse effects. Cognitive effects can be determined by reviewing the medical record, and through assessment of orientation and/or memory, and/or autobiographical memory.
- 6.4.3 The use of standardised testing such as the Folstein Mini-Mental State Examination can be helpful. Cognitive assessment should be done and recorded at baseline before ECT, and one week following the last ECT treatment in an index course.
- 6.4.4 For maintenance, cognitive assessment should be done as a baseline prior to starting and monthly thereafter.
- 6.4.5 There should also be communication between the treating psychiatrist and medical practitioners about the progress of the patient between ECT treatments and the development of any adverse effects.
- 6.4.6 If 12 ECT treatments are exceeded in an index course of treatment, a second opinion should be obtained with a note justifying the provision of further treatment. With maintenance ECT, documentation of therapeutic response and cognitive effects should occur either before each treatment, or at least monthly, if the patient is stable and treatments occur more than twice per month.

6.5 At the Time of Each ECT Session

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

- 6.5.1 Pre-Treatment-
 - a) Baseline vital signs;
 - b) Medication, including dosage given before entering the treatment room;



- c) Any changes in risk factors, presence of adverse effects, or complications, should be noted in the chart before treatment.

6.5.2 Treatment-

- a) Vital signs taken during treatment;
- b) Notes from the anaesthetist describing the patient's condition while undergoing the treatment;
- c) Recommendations by the anaesthetist suggesting any alteration in doses of anaesthetic agents and/or procedures for subsequent treatments;
- d) Medication given in the treatment, including dosage;
- e) Stimulus electrode placement (bitemporal, bifrontal, or right unilateral);
- f) Stimulus parameter settings for every stimulus delivered;
- g) Seizure duration, noting whether motor or electroencephalographic, the quality of the EEG seizure, and the quality of suppression of the EEG seizure for every stimulus delivered;
- h) Any adverse effects or complications that occur during treatment, and the steps taken to manage them, charted by the medical staff administering ECT.

6.5.3 Post-Treatment-

- a) Vital signs post-treatment;
- b) Medication given post treatment, including dosage;
- c) Notes from the recovery nurse, anaesthetist, or medical staff administering ECT documenting occurrence and management of any complications during recovery;
- d) Recommendations by the anaesthetist suggesting any alteration in doses of anaesthetic agents and/or procedures for subsequent treatments;
- e) Treating psychiatrist's recommendations for next treatment;
- f) The patient's condition on leaving the recovery area.

6.6 Following Completion of the Index ECT Course or Maintenance ECT

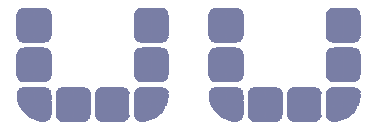
The treating psychiatrist should enter the following information in the clinical record-

- a) A summary of overall therapeutic outcome and adverse effects experienced as a result of the ECT course or series, and the rationale for choice of endpoint;
- b) A plan for post-ECT clinical management and any plans for follow-up of adverse effects.

6.7 Standardised Documentation

It is recommended that standard documentation that enables communication between the treating team and the staff of the ECT Suite be devised by the service and includes the following areas-

- a) Consent;
- b) Indications and review;
- c) Recording of each episode;
- d) Summary;
- e) Quality monitoring form showing conclusions and actions that followed.

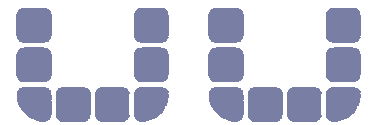


6.8 Privacy and Confidentiality- Duty of confidence

- 6.8.1 Health professionals are under a duty to maintain the confidentiality of all information that comes to them in the course of their relationship with patients. The duty protects information created, disclosed or acquired directly or indirectly in the context of the patient and health service provider relationship.
- 6.8.2 All persons, including administrative staff, who come into contact with the information as part of the health care process also have a duty to maintain the confidentiality of that information.
- 6.8.3 The general principle is that the duty of confidentiality prevents the disclosure of the information to individuals and organisations not involved in providing the health care. However, there are a number of exceptions where otherwise confidential information may be disclosed to third parties as described in the *Mental Health Act 1996*.
- 6.8.4 The duty of confidentiality does not end when the professional relationship with the patient has ceased. Nor does it end with the death of the patient.

6.9 Basis for duty of confidentiality

- 6.9.1 The duty of confidentiality can arise by statute, under the common law and in equity. An example of a statutory duty of confidentiality is Section 206(1) of the MHA which provides:
*“(1) A person must not directly or indirectly divulge any personal information obtained by reason of any function that person has, or at any time had, in the administration of this Act or the Mental Health Act 1962.
Penalty \$2 000...”*
- 6.9.2 For further information see Section 206 of the MHA, the DoH Operational Circular OP 1967/05- Patient confidentiality and divulging patient information to third parties and Consent to Treatment Policy for the Western Australian Health System.
- 6.9.3 The patient's consent is required for others to be present exclusively for the purpose of training during the administration of ECT.
- 6.9.4 The relevant requirements of the *Privacy Act 1988* and the *Privacy Amendment (Private Sector) Act 2000* should be adhered to by the health care facilities.



7.0 CONTINUATION AND MAINTENANCE ECT

7.1 General Considerations

7.1.1 Traditionally when treating major depression, once remission of symptoms has been achieved, the 6-month period thereafter is described as the “continuation phase” of treatment, while treatment beyond the 6 months is classified as the “maintenance phase” (Reesal & Lam, 2001).

7.1.2 The continuation phase represents the period of particular vulnerability for re-emergence of symptoms, and pharmacotherapy is often recommended.

In practice, it is difficult to distinguish between relapse (symptoms re-emerging during the continuation phase) and recurrence (symptoms re-emerging in the maintenance phase), thus this delineation may be less clinically useful (Kennedy et al, 2001).

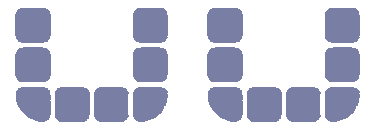
7.1.3 This period of vulnerability may be longer in the elderly, ranging from 12 months to 2 years (Kennedy et al, 2001; Flint & Rifat, 1997). Longer treatment for at least 2 years can also be appropriate for other vulnerable groups with major depression associated with chronic, severe or life-threatening, psychotic or difficult to treat episodes. It also applies to patients suffering 3 episodes or greater, and frequent episodes (2 episodes or greater in 5 years).

7.1.4 A high rate of relapse or recurrence in the 6 to 12 month period post-ECT, particularly without adequate continuation pharmacotherapy for depression has also been found (Rabheru, 2001). Appropriate continuation pharmacotherapy can significantly reduce these rates.

7.1.5 Continuation ECT (C-ECT), extending for the 6 to 12 months after acute ECT treatment, and maintenance ECT (M-ECT), extending beyond the C-ECT period, appear to be effective in preventing relapse and recurrence in all conditions with primary indications for use (Rabheru, 2001), such as depression, mania, and schizophrenia. It can also be effective for Parkinson’s disease (Wengel et al, 1998; Aarsland et al, 1997).

7.1.6 However, few prospective studies have compared C-ECT or M-ECT alone with pharmacotherapy. One study concluded ECT alone did not confer any advantage over continuation pharmacotherapy at 6 months in pre-ECT labelled “medication resistant” patients (50% relapse rate), but the comparison group was literature-based (Wijkstra et al 2000). On the contrary, M-ECT combined with medication over one year for those with major depression or schizoaffective disorder conferred better outcome prospectively than pharmacotherapy alone (Swoboda et al, 2001).

7.1.7 A retrospective case controlled series yielded a similar beneficial result of C-ECT combined with medications (Gagne et al, 2000). This finding also appears to apply to an older group of patients (mean age 70) from an older, naturalistic study (Vanelle et al, 1994). In conclusion, retrospective data and clinical experience strongly indicate there can be a clear benefit from C-ECT or M-ECT



in certain cases. however more prospective data are needed to confirm this observation.

7.2 Recommendations for Use

7.2.1 The American Psychiatric Association Task Force on Electroconvulsive Therapy guidelines note that after a successful index course of ECT, continuation of ECT should be considered when-

- a) Pharmacotherapy has been ineffective or unsafe in preventing relapse or recurrence;
- b) The patient prefers to continue with ECT, and is willing to comply with the overall treatment plan, including behavioural restrictions associated with outpatient ECT.

7.2.2 The data currently available indicates that C-ECT or M-ECT combined with pharmacotherapy provides better outcomes than ECT or pharmacotherapy alone in selected patients.

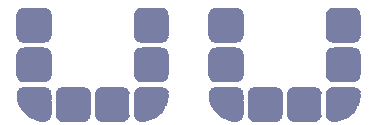
7.2.3 Some of those who remain well with C-ECT will benefit further from M-ECT. The duration of M-ECT to prevent recurrence is unclear, but there may not need to be a limited duration specified, or maximum number of M-ECT treatments, in those who particularly have a strong history of recurrent illness, or when present or past attempts to stop or taper continuation treatment have been associated with return of symptoms.

7.2.4 The National Institute for Clinical Excellence (NICE- UK) states that-

- a) It is recommended that a repeat course of ECT should be considered only for individuals who have severe depressive illness, catatonia or mania and who have previously responded well to ECT. In patients who are experiencing an acute episode but have not previously responded, a repeat trial of ECT should be undertaken only after all other options have been considered and following discussion of the risks and benefits with the individual and/or where appropriate their carer/advocate.
- b) As the longer-term benefits and risks of ECT have not been clearly established, it is not recommended as a maintenance therapy in depressive illness.

7.2.5 The Royal College of Psychiatrists Special Committee on ECT and the Scottish Audit Network (SEAN) issued a statement in November 2003 contradicting the NICE guidance in relation to C-ECT and M-ECT:

"We accept that there is not good level one evidence for continuation or maintenance ECT and we await with interest the results of the large RCT being carried out currently in the US. However, we feel there is sufficient evidence from clinical experience and from case studies to support the view that a small proportion of patients can only stay well when continuation ECT is used, and that although it is possible to use the short-term improvement with ECT, this can not be sustained by other available treatments such as lithium, antidepressants or psychotherapy, and that only continuation ECT allows such patients to stay well."



- 7.2.6 Given the varying positions outlined above, all of which acknowledge a lack of proper data, the 1999 RANZCP position, whilst relatively dated, still provides some good guidance for the clinician trying to determine the best approach:

"There is a very small proportion of patients with depression who have responded to ECT during the acute phase of their illness, but do not respond to adequate maintenance pharmacotherapy, or do so for only short periods, or are unable to tolerate such medications. The use of intermittent individual ECT treatments on a continuing basis, the frequency of which is titrated according to the severity of the illness, may be an effective alternative strategy for relapse prevention in such patients. However, it should be noted that there is a paucity of controlled trials examining the efficacy, optimal duration or cognitive complications of maintenance ECT" (Royal Australian and New Zealand College of Psychiatrists, 1999).

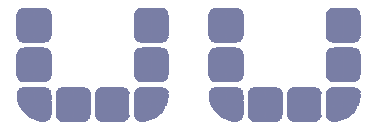
- 7.2.7 Further research, including the results of the ongoing 5-year NIMH-funded Consortium for Research in ECT (CORE), continuation ECT vs. pharmacotherapy prospective trial, will help clinicians decide whether single or combination treatment would be the most effective.

7.3 Process and Evaluation

C-ECT and M-ECT are typically given as outpatient treatments, ranging from weekly to monthly. Some will be maintained at less frequent intervals, such as every 6 to 8 weeks. Consent, technique, and evaluation, as covered in other chapters here, are issues to be tailored to the outpatient.

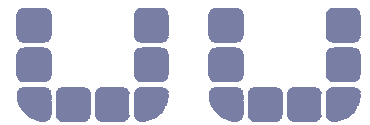
It is suggested that

- a) The responsibility between the treating psychiatrist and medical staff administering ECT regarding who should monitor for target symptoms and cognitive function, and how consent should be obtained and renewed, should be clear for each case. In most instances, these would be the treating psychiatrist's responsibilities;
- b) The overall treatment plan should be reviewed and consent should be obtained at least every 3 months or every 12 treatments, whichever is less;
- c) A register of patients undergoing ECT is helpful. A readily accessible site where consents can be stored and brought up with each treatment is optimal;
- d) A discussion of the frequency of treatments and anticipated tapering schedule is strongly suggested before starting C-ECT. One tapering schedule suggests weekly ECTs for 1 month, biweekly ECTs for 2 months and monthly ECTs for 3 months. Because of the vulnerability for relapse in the continuation phase of treatment, the treating psychiatrist may not need to reduce ECT at such a prescribed frequency. Instead, the schedule of ECTs could be guided by each individual's clinical condition and his or her history of relapse when attempts have been made in the past to reduce continuation of treatment.



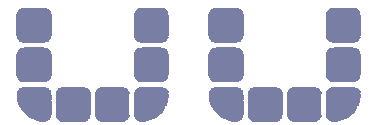
7.4 Special Considerations: Dementia and ECT

- 7.4.1 There may be some patients, for whom ECT is prescribed, who may be incompetent to consent for C-ECT or M-ECT, (i.e., Patients with dementia, brain injury or minors) but do not fit the criteria for involuntary status. In these circumstances ECT cannot be given.
- 7.4.2 Scales such as the Geriatric Depression Scale can aid in diagnosis in the presence of mild to moderate dementia (Feher, Larrabee & Crook, 1992) particularly if there are reliable informants around.
- 7.4.3 Complicating the issue further is that an index course of ECT may have a positive effect on general agitation in those with dementia (Holmberg, Tariot & Challapalli, 1996) as well as benefiting those patients with dementia and major depression (Rao & Lyketsos, 2000) paralleling the efficacy of SSRIs for treating anxiety or some behavioural disorders associated with dementia (Raskind, 1998).
- 7.4.4 These factors should be taken into account before commencing C-ECT or M-ECT in those patients with dementia. Clearly there will be those who attain a clear benefit in mood and affective symptoms, with improvement in function or social interaction. However, there will be those who become more placid due to less-specific effects of ECT, or due to a progression of the dementia itself. Thus, finding alternative pharmacological or non-pharmacological maintenance treatments other than ECT would minimise risk of treatment in the long term.
- 7.4.5 While C-ECT or M-ECT is considered a safe treatment in dementia, and there is no evidence for alterations of brain structure from contemporary ECT (Devanand et al, 1994) there are no data available to indicate whether M-ECT can or cannot adversely influence the cognitive deterioration in dementia.
- 7.4.6 Therefore, for those with dementia, it is suggested that:
 - a) There must be significant benefit observed with an acute course of ECT before recommending C-ECT or M-ECT;
 - b) There must be clear documentation of the indication for C-ECT or M-ECT, and the symptoms targeted;
 - c) The risks and benefits of C-ECT or M-ECT are specifically discussed with the patient and documented;
 - d) For those deemed to be incompetent to consent, a second psychiatric opinion is advisable, preferably from a geriatric psychiatrist, addressing both the clinical issues and the capacity to consent issue bearing in mind that the treatment could only be provided if the person is made an involuntary patient under the MHA;
 - e) A review of the treatment plan and the need to continue ECT should be done every 3 months, including a re-evaluation of cognitive function and a discussion of this with the patient.



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8.0 NURSING CONSIDERATIONS

8.1 Recommendations on Nursing Responsibilities

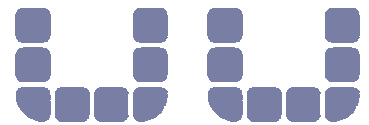
- 8.1.1 ECT is provided in a variety of settings in Western Australian hospitals. These include ECT suites, designated areas, and theatres. The chapter outlines recommendations regarding nursing responsibilities in relation to the delivery of ECT.
- 8.1.2 Nursing staff work within the multidisciplinary team to ensure safe and effective treatment for patients. Their specific responsibilities in relation to ECT are provision of support and advocacy for patients and their significant others as well as the care of patients prior to, during and recovery from treatment.
- 8.1.3 For an ECT service to operate effectively there needs to be a designated registered nurse who is responsible for the day to day management of the service. The role of this nurse includes the development of appropriate policies and procedures to guide the service's nursing activities. It is preferable that the nurse is actively involved in the delivery of ECT to patients.
- 8.1.4 Wherever possible a core team of nursing staff, skilled and experienced in the delivery of ECT, should be developed to ensure the safe delivery of patient care.
- 8.1.5 This team may include enrolled nurses working within their scope of practice.
- 8.1.6 The numbers and skill mix of nurses rostered for any given ECT session will be dependant on the number of patients scheduled for treatment, their individual needs, and the area that is used for ECT treatment. Recommendations of professional organisations should guide practice in this area.
- 8.1.7 It is recommended that staff who have a skin allergy to latex gloves be provided with latex free gloves.

8.2 NURSING ROLES

8.2.1 ECT Nurse Co-ordinator

Responsibilities are to-

- a) Develop operational policies and procedures;
- b) Manage the ECT Suite by ensuring it is properly equipped, prepared, organised and maintained;
- c) Supervise the operation of ECT service sessions;
- d) Liaise with, educate and advise patients, carers and other professionals;
- e) Participate in continuous quality improvement activities;
- f) Manage complaints effectively;
- g) Ensure that the nurses involved in the administration of ECT are trained and competent;



- h) Ensure that an orientation to the ECT area and ECT process is available for staff;
- i) Ensure that all records are maintained and completed.

8.2.2 ECT Nursing Staff

Responsibilities are to

- a) Work within their scope of practice and ensure that they have the appropriate levels of training and competency to assist in the administration of ECT;
- b) Prepare patients psychologically and physically for ECT;
- c) Participate in the actual delivery of ECT, including preparation and aftercare;
- d) Participate in providing education to patients and their families about ECT and the management of the illness it is treating;
- e) Participate in continuous quality improvement activities relevant to ECT services.

8.3 Nursing Responsibilities for Patients Undergoing a Course Of ECT

The following interventions should be considered as guidelines and may vary according to hospital specific policies, procedures and practices.

8.3.1 Goals of Nursing Care

The goals of nursing care in relation to the patient having ECT are that:

- a. the patient will understand the need for treatment, the possible side effects and the procedure to be carried out;
- b. the patient will experience minimal physical side effects and psychological discomfort from ECT;
- c. the patient's safety will be maintained before, during and after ECT.

8.3.2 Pre-Treatment care of the patient

- a) In consultation with the psychiatrist assess the education required by both patient and family members as appropriate;
- b) Implement and evaluate an education plan;
- c) Document the education carried out and the outcome;
- d) Ensure facility appropriate forms related to ECT treatment are on patient's medical record, including consent form, checklists, record of anaesthesia, and record of ECT.

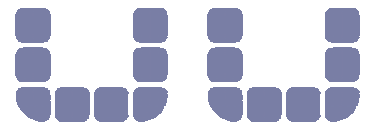
8.3.3 Care of the patient the day before treatment

- a) Assess patient's physical and mental state and report appropriately, ensuring treating team are aware of any problems;
- b) Commence the ECT/pre-Op checklist;
- c) Encourage and assist patient with personal hygiene needs;
- d) Ensure patient is aware of fasting requirements (as per anaesthetic recommendations).

8.4 Nursing Responsibilities on the Morning of Treatment

8.4.1 Pre-treatment checks: Treatment Room Nurse-

- a) Check that all equipment is functional and set up as required, including emergency equipment, oxygen and suction in recovery area according to local protocol;



- b) Check that treatment medication and emergency medications are available and current;
- c) Check stimulus setting on ECT machine and print out test program in preparation for treatment;
- d) Ensure there are sufficient linen supplies.

8.4.2 Management of the patient-

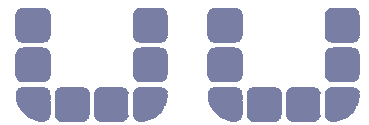
- a) Complete ECT/Pre-Op checklist, confirming fasting regime has been adhered to;
- b) Administer medications as prescribed;
- c) Assess the patient's potential for incontinence and manage appropriately;
- d) Give patient reassurance and support;
- e) Accompany patient to treatment area, remaining with patient until he/she enters the treatment area.

8.5 Management of Patient During Treatment

- a) Receive the patient in the designated area, and ensure all necessary forms are with the medical record;
- b) Make patient comfortable on bed/trolley, and collect baseline clinical data;
- c) Check ECT/Pre-Op checklist and review consent form for potential problems and manage appropriately;
- d) Cleanse electrode placement sites according to recommended guidelines;
- e) Attach or assist with placement of monitoring electrodes;
- f) Record O2 saturation on room air;
- g) Assist anaesthetist as required;
- h) Assist with placement of stimulus electrodes;
- i) Clarify and check setting for stimulus dose;
- j) Assist treating physician by triggering electrical stimulus when requested;
- k) Post seizure, record vital sign as required;
- l) Remove monitoring equipment when directed;
- m) Assist turning patient to post anaesthetic position if required;
- n) Assist with transfer of patient to recovery area, and hand over appropriate information;
- o) Provide emergency interventions if/as required.

8.6 Management of patient in post anaesthetic recovery area

- a) Accept patient from treatment area and receive handover from treatment room staff in relation to patient's condition;
- b) Regularly review and monitor patient's condition according to local procedures, with special attention to airway management;
- c) Note patient's sedation/consciousness levels;
- d) Assist patient to expel artificial airway if required;
- e) Check patient's mouth/teeth for any injury, and ECT electrode sites for redness/blistering or signs of allergy. Notify treating physician if any problems noted, and complete incident report as required;
- f) Reassure patient and re-orientate to time and place;



- g) Continue to monitor patient for post ECT side effects, post anaesthesia side effects, including post-ictal delirium, taking appropriate action as required;
- h) Ensure patient meets discharge criteria prior to leaving recovery area;
- i) Ensure all care is documented.

8.7 Post treatment

- a) Monitor mental state according to local protocols (eg Folstein's mini mental state);
- b) Continue to assess patient physiological status according to local protocols, including voiding;
- c) Offer patient reassurance and support as needed;
- d) Assess safety of patient's environment, and their readiness to ambulate;
- e) Provide patient with fluids and light breakfast as tolerated;
- f) Administer medications as prescribed;
- g) Ensure patient is accompanied when leaving the ward for 24 hours post treatment;
- h) Instruct the patient not to drive for 24 hours post treatment.

8.8 Day procedure patients

It is recommended that facilities providing day procedure ECT develop a policy statement and procedure that will address the discharge process of patients. Such a policy with corresponding procedures will include:

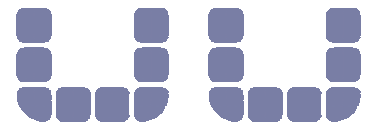
- a) Criteria to be met before discharge can take place;
- b) Who may discharge the patient (eg the ECT Coordinator);
- c) Whom to call if a patient does not meet the discharge criteria.

8.9 Management of day patients post treatment

- a) Patient must meet discharge criteria before leaving treatment facility;
- b) Patient must be accompanied by a responsible adult when leaving the treatment facility;
- c) Check patient has access to telephone overnight in case of emergency;
- d) Give verbal and written instructions to patient and accompanying adult regarding care. Information needs to include possible side-effects from treatment of anaesthesia, who to contact in the event of concerns arising, the importance of the patient not driving for 24 hours, and not signing any legal documentation for 24 hours post treatment;
- e) Ensure patient takes their personal belongings with them.

8.10 Additional Considerations when ECT is performed in operating suites

- a) Ensure that psychiatric staff have been orientated to the relevant operating suite procedures and protocols prior to treatment;
- b) A designated member of the nursing staff from the psychiatric unit will be allocated to attend theatres to assist with the treatment;
- c) Psychiatric unit staff accompany patient to theatre, and remain with them until received into the treatment area.



9.0 ANAESTHESIA REQUIREMENTS

9.1 GENERAL CONSIDERATIONS

- 9.1.1 Anaesthesia for ECT should be administered by fully trained specialists, ie registered medical practitioners with Fellowship of the Australian and New Zealand College of Anaesthetists (FANZCA) or equivalent qualifications.
- 9.1.2 In addition, all anaesthesia providers must be credentialed to provide ECT anaesthesia by their healthcare facility and comply with the requirements of the Australian and New Zealand College of Anaesthetists (ANZCA) guidelines for practice.
- 9.1.3 Anaesthetising locations outside an accredited hospital operating room suite must follow the "Guidelines on Minimum Facilities for Safe ECT Anaesthesia Practice Outside Operating Suites" (Australian and New Zealand College of Anaesthetists, 2000).
- 9.1.4 When, anaesthesia practitioners do not have the necessary equipment, or, staff lack the necessary training or skills to safely and efficiently administer general anaesthesia for electroconvulsive therapy and attend to the potential complications, or, when the patient's medical condition dictates, a prudent practitioner should refer the patient to another practitioner or facility to provide optimal care.
- 9.1.5 Standard precautions must be adopted for all anaesthetic practice in terms of infection control, which should conform to the ANZCA Policy on Infection Control in Anaesthesia.

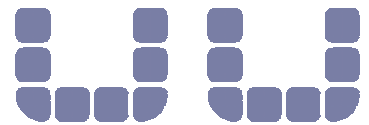
9.2 PRE-ANAESTHETIC PERIOD

9.2.1 Anaesthesia Consultation/Evaluation

- 9.2.1.1 An anaesthesia consultation/evaluation should be requested before the first ECT or, during maintenance ECT, when there is a significant change in the patient's medical status or medications.

Pre-Anaesthesia Consultations should comply with the *Guidelines on the Pre-Anaesthesia consultation for ECT* (ANZCA). All patients should have a consultation. The objectives of a consultation are to-

- a) Determine the indication for ECT and any specific requirements that pertain to the proposed ECT therapy;
- b) Determine the history of anaesthetic course during any prior ECT;
- c) Identify risk factors that may increase peri-operative risk, and to take or suggest measures that would try to minimize that risk, including obtaining opinions from other consultants, laboratory, or investigative testing that may be deemed appropriate from the history and physical examination of the patient. Where risks are



considered to be high, cancellation of the proposed procedure may be in the patient's best interests.

9.2.1.2 During the evaluation-

- a) A written report should be provided, documenting history and physical status, and specific concerns that may impact the proposed treatments and/or affect patient outcome;
- b) Pre-operative modification of antidepressant drugs should be discussed with the attending psychiatrist;
- c) Pre-operative orders to be administered before each treatment should be provided.

9.2.2 Pre-Operative Laboratory Testing

- a) No routine laboratory investigations are necessary; ordering of laboratory tests should be guided by the presence and severity of medical risk factors;
- b) The potential for drug interaction and the autonomic instability that may manifest itself during ECT treatments should guide the clinician to consider obtaining other baseline investigations;
- c) Hospital or treatment facilities may define their own guidelines, depending on their specific circumstances.

9.2.3 Oral Intake

9.2.3.1 Minimum duration of fasting should be

- a) 8 hours after a meal that includes meat, fried, or fatty foods;
- b) 6 hours after a light meal (such as toast and a clear fluid);
- c) 2 hours after clear fluids.

9.2.3.2 If necessary, patients should be maintained on a level of observation sufficient to ensure compliance.

9.2.3.3 Should risk factors for aspiration be present, the anaesthetist may elect to prolong the patient's nil-by-mouth status, and pre-operatively prescribe a prokinetic agent such as metoclopramide, an H₂ receptor blocker such as ranitidine, or a non-particulate antacid such as sodium citrate. This would be ordered in the pre-operative orders.

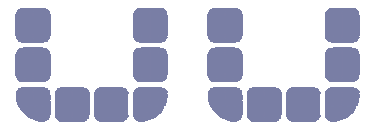
9.2.3.4 Patients at risk for relative dehydration should have an intravenous commenced early in the pre-operative period. All patients with diabetes should have a baseline glucometer reading performed. Thereafter, if indicated, a dextrose containing intravenous should be commenced.

9.2.3 Medications

9.2.3.1 Most regular medications should be continued during a course of ECT.

9.2.3.2 Patients may be given with a sip of water the morning of treatment. (See "Psychotropic Medications during ECT" in 4.0.)

9.2.4 Physiological Changes During ECT



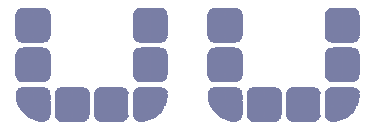
- a) Application of the electrical stimulus results in an initial vagal stimulation regardless of whether a seizure is induced. The most apparent effect of this parasympathetic discharge is bradycardia.
Asystole may occur, particularly in younger patients or individuals that have pre-existing cardiac conduction defects, or medications that affect conduction, such as beta-blockers;
- b) Seizure induction results in a sympathetic discharge with release of catecholamines and a resultant tachycardia and hypertension. The rate/pressure product increases dramatically; this may place the myocardium at risk for ischemia;
- c) Post seizure, baroreceptor-induced bradycardia may occur;
- d) During the seizure, cerebral blood flow increases markedly, oxygen extraction increases, and glucose metabolism increases;
- e) Cerebral autoregulation may be impeded, resulting in increased intracerebral pressure;
- f) Cardiac arrhythmias are frequent, but are usually self-limiting;
- g) Post-operative electrocardiographic changes showing ST-segment deviation and T wave inversion suggestive of subendocardial ischemia have been reported;
- h) Systolic performance of the left ventricle has been shown to be transiently impaired in patients not felt to be at risk for cardiac ischemia;
- i) Intraocular and intragastric pressure increases.

The aforementioned physiological changes that may occur during ECT, coupled with the administration of anaesthetic agents, is what places patients “at risk” for ECT. It is these factors that necessitate a complete evaluation of risk at the time of the anaesthetic consultation. These risks must be balanced against those associated with medication use.

9.3 THE ANAESTHETIC PERIOD

9.3.1 Unique Considerations

- a) The procedure of ECT requires general anaesthesia. All anaesthetic agents will increase the seizure threshold. The choice of agent, its dose and delivery technique has an important influence on the success of the seizure stimulus in producing a therapeutically successful seizure. Currently there is no evidence to suggest that any of the available induction agents have any benefit over the others in minimising the alteration in seizure threshold. However it is apparent that minimising the induction dose to the smallest possible amount will maximise the potential for successful therapeutic seizure;
- b) Neuromuscular blockade is necessary to attenuate the musculoskeletal manifestations of the seizure and to enable airway control and patency to permit ventilation and oxygenation;
- c) The selection of drugs and doses should be individualised to account for each patient’s unique requirements;
- d) Potential drug interactions with antidepressants (e.g., MAOIs, lithium) must always be considered;
- e) Seizures persisting for more than 180 seconds should be considered prolonged, and should be terminated pharmacologically;
- f) The protection of the teeth and oral structures requires special attention;



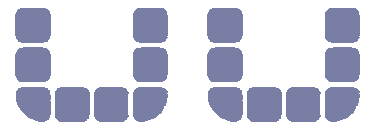
- g) The electrical stimulus results in direct stimulation of the masseter, pterygoid, and temporalis muscles, causing an abrupt clenching of the jaw, despite muscle relaxation;
- h) A flexible bite-block should be used to distribute the force of the jaw contracting, to enable protection of the teeth and other oral structures;
- i) All patients, including edentulous patients, require a bite-block to be inserted.
- j) Partial dentures may remain in as a support to protect single or vulnerable teeth;
- k) The patient's chin should be supported to keep the jaw tight against the bite-block during the stimulus;
- l) A plastic airway (e.g., Guedel-type) should not be used as a bite-block.

9.3.2 Monitoring during anaesthesia

- a) ANZCA Guidelines on Monitoring During ECT Anaesthesia should be complied with;
- b) ANZCA Guidelines on the Assistant for the ECT Anaesthetist should be complied with.

9.3.3 Procedure

- a) Perform equipment check, and ensure emergency drugs and apparatus are present, available, and functional;
- b) Ensure that trolley/bed is capable of Trendelenburg positioning;
- c) Review the patient's chart, including prior ECT anaesthetic records;
- d) Ensure that the patient has an understanding of the proposed anaesthetic;
- e) Discuss the planned procedure with the attending psychiatrist, including-
 - I. unilateral or bilateral electrode placement;
 - II. the necessity to titrate stimulus intensity;
 - III. the necessity to utilize proconvulsant drugs;
 - IV. the requirement for limb isolation to observe motor manifestations of seizure;
 - V. the need for relative hyperventilation.
- f) Establish intravenous access via an indwelling cannulae;
- g) Ensure monitors are attached, and obtain a baseline recording of parameters;
- h) Administer anaesthetic drugs, ensuring adequate pre-oxygenation, airway control, and placement of the bite-block;
- i) Administer intermittent positive pressure ventilation with 100% oxygen until the electrical stimulus, and continue post-stimulus until spontaneous and regular breathing are resumed;
- j) Ensure electrical isolation and support the mandible in occlusion before the stimulus;
- k) Ensure the patient's positioning is optimal to ensure his or her safety;
- l) When the patient is adequately anesthetized and haemodynamically stable, and muscle relaxation is optimized (90 seconds for succinylcholine), the ECT stimulus may be applied;
- m) During and immediately post stimulus, special attention must be directed to-
 - I. oxygenation and ventilation.
 - II. Hemodynamic stability. The blood pressure cuff should be cycled every 1-2 minutes. (A manual cuff may be required to record pressure, since the automatic cuff's cycle time and accuracy may be impeded by wide fluctuations in the blood pressure or by the presence of tachy or brady dysrrhythmias);



- n) When the seizure has terminated, both in terms of motor and EEG evidence and hemodynamic stability is achieved, the patient may be placed in the lateral position to maintain airway patency;
- o) Once the patient is stable, rousable, and maintains spontaneous ventilation, he or she may be transferred to the recovery area. Oxygen should be administered by facemask during transit;
- p) The course of the anaesthetic should be recorded.

9.4 ANAESTHESIA DRUGS

The ideal induction agent would provide a short induction time that assured complete amnesia/unconsciousness throughout the period of muscle relaxation, including the seizure, while providing rapid titratability, haemodynamic stability, and a rapid recovery profile. It should have minimal to no effect on the seizure threshold, duration, or propagation of the seizure.

9.4.1 Sodium Thiopentone (Pentothal)

- a) Sodium thiopentone is the current drug of choice in some treatment facilities;
- b) This barbiturate increases the seizure threshold in a dose-dependent fashion;
- c) Repeat dosing may cause a prolonged recovery period.

9.4.2 Propofol (Diprivan)

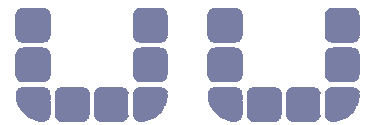
- a) A dose of 0.75 - 1.5 mg/kg results in a significant reduction of the magnitude of hemodynamic changes that accompany ECT;
- b) Propofol induces cerebral vasoconstriction, reduces cerebral blood flow and intracranial pressure, and decreases cerebral metabolic rate. Propofol causes a greater attenuation of the cardiovascular changes of ECT compared to thiopentone;
- c) Anticonvulsant action reduces seizure duration significantly at moderate to large doses;
- d) It is not shown to change therapeutic outcome compared to pentothal or methohexital;
- e) There is pain on injection, which can be reduced by injecting into a fast-running intravenous placed into a larger bore vessel. (Lidocaine should not be added to propofol, since it will increase the seizure threshold.);
- f) Propofol shows no benefit in the recovery profile compared to barbiturates (ECT use).

9.4.3 Ketamine

- a) Ketamine has been used for induction of anesthesia for ECT. There is anecdotal evidence that it is useful in patients whom are refractory to having seizures induced;
- b) Due to its intrinsic sympathomimetic activity haemodynamic changes are increased with the seizure.

9.4.4 Muscle relaxants

- a) Muscle relaxants are used to minimize risk of a skeletal injury during seizure;
- b) Complete paralysis is neither desirable nor necessary, but should be tailored to the patient's need;
- c) A peripheral nerve stimulator allows a more accurate estimation of paralysis than clinical estimation.



9.4.5 Succinylcholine

- a) Succinylcholine is the relaxant of choice in a dose of 0.5 - 1.0 mg/kg;
- b) Optimal relaxation occurs once all fasciculations have stopped;
- c) If a repeat dose be required, an anticholinergic agent should be given before the succinylcholine, to reduce the potential for asystole;
- d) Contraindicated in conditions with recent neurological deficit, malignant hyperthermia, hyperkalaemia, burns, atypical pseudocholinesterase, or cholinesterase inhibition.

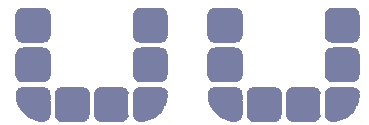
9.4.6 Anticholinergic Agents

- a) Atropine in a dose of 0.3 - 0.6 mg iv. or glycopyrrolate 0.2 - 0.4 mg iv. may be used to decrease the bradycardia associated with the stimulus;
- b) Anticholinergic agents should be administered intravenously in sufficient time (1 - 3 minutes) before the stimulus to attenuate the vagal effects on the heart;
- c) They are recommended during the first treatment where the incidence of subconvulsive stimuli is higher while the convulsive threshold is evaluated;
- d) Glycopyrrolate may be a preferable drug in the elderly, since it is less likely to cause tachycardia and has a reduced incidence of postictal delirium compared to atropine.

9.5 POST-ANAESTHETIC PERIOD

9.5.1 Post-Anaesthesia care should comply with the *Guidelines for the Post-Anaesthesia ECT Recovery Room (PAR)*.

- a) Communicate any medical or anaesthetic concerns to the recovery area nurse;
- b) Ensure the patient's airway, breathing, and circulation continues to remain stable, and administer supplemental oxygenation if required;
- c) Remain in the recovery area to receive the initial set of vital signs from the recovery nurse, including-
 - I. Respiratory rate;
 - II. Pulse rate and rhythm;
 - III. Blood pressure;
 - IV. Oxygen saturation;
 - V. Level of consciousness.
- d) Chart and sign anaesthetic drugs and dosages in recovery, noting comments regarding any complications and/or suggestions for changes for future ECT sessions on the anaesthesia record;
- e) Ensure that the doses of induction agent and relaxant are recorded and any recommendations for change in doses at the next treatment are noted;
- f) Discard contaminated needles, syringes in the appropriate containers;
- g) Send airway equipment to CSD for cleaning;
- h) Diagnose and treat abnormalities in vital signs and other complications, including, but not limited to-
 - I. Postictal delirium;
 - II. Headache;
 - III. Nausea and vomiting;
 - IV. Bronchospasm;
 - V. Angina;
 - VI. Hypo/hyperglycemia in diabetic patients.
- i) Note serious complications in the chart and/or communicate them to the patient's physician.



- 9.5.2 The patient's medical condition is the anaesthetist's responsibility until the patient is discharged from the PAR. Discharge from the PAR is a responsibility of the anaesthetist, delegated to the PAR nurses who use established discharge criteria according to the "ECT Nursing Record." To be discharged from the PAR, the patient must be free of complications and have his or her vital signs returned to baseline.

References

Clinical Memorandum #12. Electroconvulsive Therapy, Revised. Royal Australian and New Zealand College of Psychiatrists, 1999.

Australian New Zealand College of Anaesthetists Professional Documents

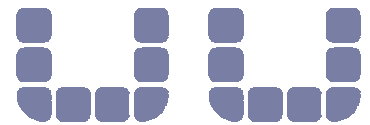
ANZCA PS8 (2003) Guidelines on the Assistant for the Anaesthetist

ANZCA PS4 (2000) Recommendations for the Post Anaesthesia Recovery Room

ANZCA T2 (2000) Recommendations on Minimal Facilities For Safe Anaesthesia Practice Outside Operating Suites

ANZCA PS7 (2003) Recommendations on the Pre Anaesthesia Consultation

ANZCA PS18 (2000) Recommendations on Monitoring During Anaesthesia



10.0 TRAINING CREDENTIALING AND CLINICAL PRIVILEGING OF HEALTH CARE PROFESSIONALS

Note: It is the intention of the Chief Psychiatrist to establish an Advisory Group for the practice of ECT in Western Australia. That group will have carriage of issues of clinical privileging and training.

10.1 Training, Credentialing & Defining the Scope of Clinical Practice

10.1.1 The goal of training, credentialing and defining the scope of clinical practice is to ensure that practitioners possess the knowledge and skills required to provide safe and effective treatment. This is even more important in the case of ECT, given the controversy and negative perceptions that surround ECT.

10.1.2 "Credentialing refers to the formal process used to verify the qualifications, experience, professional standing and other relevant professional attributes of medical practitioners for the purpose of forming a view about their competence, performance and professional suitability to provide safe, high quality health care services within specific organisational environments" (Australian Council for Safety and Quality in Health Care, 2002).

10.1.3 Verifying that clinicians are licensed by their relevant professional body and have their names entered on the professional register is an essential part of any credentialing process.

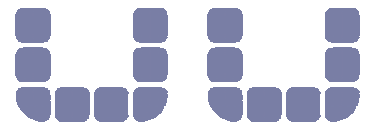
10.1.4 "Defining the scope of clinical practice follows on from credentialing and involves delineating the extent of an individual medical practitioner's clinical practice within a particular organisation based on the individual's credentials, competence, performance and professional suitability, and the needs and the capability of the organisation to support the medical practitioner's scope of clinical practice" (Australian Council for Safety and Quality in Health Care, 2002).

10.2 RESPONSIBILITY

10.2.1 It is the responsibility of the health service providing the ECT service to ensure that professionals who provide the services meet the defined criteria for credentialing and defining the scope of clinical practice.

10.2.2 In addition to professionals involved in direct administration of ECT who should go through a formal credentialing system (or its equivalent) a number of others need competence in aspects of ECT. For example, psychiatrists who prescribe ECT but do not provide it, and nurses on units where people receive ECT, need considerable knowledge about its indications, effects, side effects, patient education issues, and the like.

While the health service does not need a special ECT clinical privileging system for these people, it does have a responsibility to ensure that professionals are competent and keep up with developments in the field.



- 10.2.3 Credentialing and training are closely linked. Basic training is received before entering practice and subsequently is the basis for developing and maintaining the knowledge, skills, and attitudes that clinical privileging requires. While the health service is not responsible for preparing students in nursing and psychiatry, their feedback to professional schools in areas such as the delivery of ECT may be helpful for preparing students.

In addition, health services along with the professions have a responsibility for ensuring that practitioners keep up-to-date on developments in ECT. This chapter includes lists of the knowledge and skills that should be considered in establishing clinical privileging criteria for ECT.

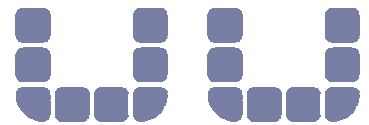
10.3 Competencies Required

- 10.3.1 ECT has evolved into a complex medical procedure that requires interaction among many health care providers. To accomplish the successful outcome of ECT, it is necessary for entire teams to stay informed of the advances in the practice of ECT.

This will include the treating psychiatrist, referring medical practitioners, medical practitioners administering ECT, attending nurses, and staff of the ECT service, including staff in the receiving area, treatment area, post-anaesthetic recovery, and the outpatient post-discharge area.

Staff should be trained in the historic aspects of ECT as well as advances in technique, including stimulus dosing, electrode placement choices, physiological modifications of induced seizures, and physiological monitoring during ECT and in the recovery area, as well as post-ECT care on the ward or in outpatient clinics.

- 10.3.2 Medical practitioners administering ECT need to have mastered the following knowledge levels or competencies
- a) Indications for the use of ECT;
 - b) Risk-benefit assessments;
 - c) Patient selection and evaluation;
 - d) Consent procedures for both voluntary and involuntary patients;
 - e) Preparation of patients;
 - f) Types and use of ECT equipment;
 - g) Techniques of ECT administration;
 - h) Anaesthetics and muscle relaxants;
 - i) Airway management and oxygenation;
 - j) Bite-blocks and nerve stimulators;
 - k) Electrode placement;
 - l) Stimulus parameters and dosing, including the concept of threshold;
 - m) Monitoring of EEG and motor convulsions;
 - n) Electrophysiological monitoring of heart rhythms and blood pressure;
 - o) Management of missed and prolonged seizures;
 - p) The concept of inadequate seizure;
 - q) Emergency use of ECT;
 - r) Management of medical emergencies during ECT;
 - s) Documentation of inter-ECT interval progress;



- t) Evaluation of therapeutic outcomes and side effects, in particular, cognition;
- u) The use of maintenance ECT;
- v) Post-ECT medication management, particularly to prevent relapse and recurrence.

10.3.3 Medical practitioners and psychiatrists referring patients for treatment need to know

- a) Indications for the use of ECT;
- b) Risk benefit assessments;
- c) Patient selection and evaluation;
- d) Consent procedures for both voluntary and involuntary patients;
- e) Documentation of inter-ECT interval progress;
- f) Evaluation of therapeutic outcomes and side effects, in particular cognition;
- g) Post-ECT medication management, particularly to prevent relapse and recurrence.

10.3.4 To address recruitment and continuing education issues in remote or rural hospitals, a customised local continuing education program for interested medical practitioners should be considered.

The continuing education course should not only bring the knowledge and practice to contemporary standards, but should help form linkages with major teaching hospitals. Policies should be developed to refer patients to teaching hospitals if problems are encountered in the treatment process.

10.3.5 Continuing education programs should include both didactic lecture or seminar components and practical hands-on training with a mentor.

10.4 Clinical Privileging Psychiatrists and Medical Practitioners

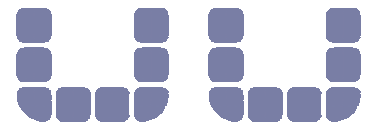
10.4.1 It is recommended that privileges for the administration of ECT should be restricted to RANZCP certified psychiatrists trained in modern ECT practice, whenever possible, including the use of EEC monitoring, at a recognised ECT training program.

10.4.2 Where trained psychiatrists are not available, another medical practitioner with an interest in psychiatry could be specifically trained in the modern practice of ECT to meet regional needs.

In situations where the medical practitioner administering ECT is not a trained psychiatrist, a mandatory psychiatric consultation should be required for every patient before ECT commences.

10.4.3 Psychiatrists and Medical Practitioners should be credentialed through a formal process by a credentialing committee appointed by the healthcare facility. It must be separate from the Medical Advisory committee.

The committee should meet the requirements for the Composition of the Committee Responsible for Credentialing and Defining the Scope of Clinical Practice contained at 7.2 in the Australian Council for Safety and Quality in Health Care national standard.



10.4.4 The credentialing committee, having assessed the knowledge and skills of a Psychiatrist or Medical Practitioner who wishes to be involved with the ECT treatment team, can decide to grant that clinical privilege to the practitioner. The credentialing process should include documentation of clinical privileges granted.

10.4.5 The credentialing committee should be responsible for all credentialing and clinical privileging functions, including appointments, re-appointments, monitoring, performance appraisals, and recommendations for privileges to practice ECT. Privileges for ECT practice should be reviewed every second year.

10.4.6 Although it is difficult to get an agreement about what constitutes a basic minimum requirement for the practice of ECT (and for the maintenance of competence) the person responsible for determining whether a Psychiatrist or Medical Practitioner should be privileged for the ECT service, should use as a basis, the information outlined in this chapter.

It is recommended that ECT practitioners be informed about developments in the field in terms of research, advances in technique, and evolving indications for the use of ECT, as well as maintaining an active ECT practice.

10.4.7 In addition to the above requirements, a Psychiatrist or Medical Practitioner who wishes to administer unsupervised ECT should first be able to demonstrate:

- a) Administration of a minimum ten ECT treatments under supervision;
- b) Management of at least one patient through a course of ECT and administration of all of the ECT treatments to that patient;
- c) Certification of competence by an accredited ECT practitioner.

10.4.8 The minimum requirements for ongoing accreditation should be:

- a) Performing or personally supervising a minimum of twenty five ECT treatments per annum;
- b) The ability to demonstrate ongoing professional development in the area of ECT.

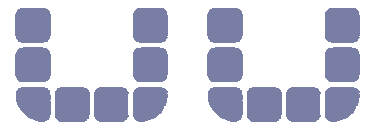
10.4.9 Giving an occasional ECT will not be adequate to maintain the necessary skills.

10.4.10 It is recommended that trainees in psychiatry satisfy the requirements of training in ECT set down by the RANZCP before being allowed to administer ECT unsupervised.

10.5 Nursing Staff- Training and orientation programs

10.5.1 General Nursing Staff

Nursing orientation should include an overview of ECT, its history, indications for use, and potential risks.



10.5.2 Nursing Staff Working in Psychiatry

Training should include

- a) The history of ECT;
- b) Indications for and potential risks of ECT;
- c) Pre-ECT evaluation and medical review;
- d) Informed consent procedures;
- e) ECT technique;
- f) Information to be included inpatient and family education.

10.5.3 Nursing Staff working in ECT treatment areas and recovery rooms

As above and in addition:

- a) policies and procedures regarding the use of ECT at the facility;
- b) the effects and side effects of psychotropic, muscle relaxants and anaesthetic medications;
- c) equipment used in ECT and post-anaesthetic recovery;
- d) preparation of the ECT and recovery areas prior to treatment commencing including the completion of necessary checklists;
- e) preparation of the patient for ECT including psychological support and physical preparation, consent procedures and the completion of necessary checklists;
- f) nursing participation in ECT treatment;
- g) procedures for post-anaesthetic recovery (including management of emergency situations and discharge protocols).

10.6 Credentialing of Nursing Staff

In order to credential nursing staff the facility will have to clearly delineate its required nursing competencies. Nursing staff who practice at that level, or above, can then be credentialed by demonstrating:

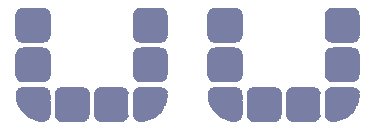
- a) registration with the Nurses Board of Western Australia as a Registered Nurse;
- b) certification showing required competencies achieved;
- c) curriculum vitae demonstrated level of ECT experience;
- d) documented peer reviews (2) confirming competency standards have been consistently achieved;
- e) managerial support for application;
- f) observation of clinical practice by nurse educator.

References

Australian Council for Safety and Quality in Health Care. National Guidelines for Credentials and Clinical Privileges, July 2002.

Australian Council for Safety and Quality in Health Care. Standard for Credentialling and Defining the Scope of Clinical Practice, February 2004.

Office of Safety and Quality in Health Care, Department of Health, Government of Western Australia. Credentialling: An Introduction.



11.0 QUALITY ASSESSMENT

11.1 ECT Director

It is recommended that each hospital providing ECT appoint an ECT Director to oversee the effective provision of ECT at that hospital, including-

- a) compliance with all relevant guidelines, standards & legislation;
- b) appropriate clinical care of patients;
- c) monitoring of ECT as a therapy;
- d) clinical privileging of medical practitioners to perform ECT;
- e) development of policies and procedures for ECT;
- f) the availability of patient and family education materials;
- g) training of medical and nursing staff;
- h) post-graduate education;
- i) supervision and quality control of ECT;
- j) research.

11.2 Program Quality Improvement (QI Initiatives)

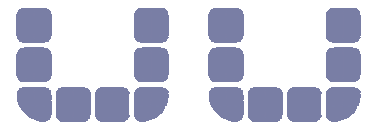
11.2.1 The purpose of quality assurance or improvement programs is to improve outcomes. It is only by critically looking at our work that we may objectively identify areas for possible improvements.

Improved outcomes include:

- a) Improved patient outcomes regarding symptom reduction;
- b) Reduction in side effects;
- c) Improved patient satisfaction;
- d) Better information being received by patients, families, and other decision-makers;
- e) Better staff training.

11.2.2 Monitoring of ECT should be the responsibility of the health service, through quality improvement initiatives defined by designated psychiatric quality improvement teams. The following are recommendations for activities for quality assurance and/or improvement.

- a) As part of a QI process, an annual review should include one or more of the following-
 - a. Documented consent;
 - b. Pre-ECT checklists;
 - c. ECT treatment forms;
 - d. Side effects and complications;
 - e. Basic treatment outcomes;
 - f. Patient and family education activities
 - g. Patient satisfaction.
- b) A review of nursing, psychiatrist and medical practitioner training, as well as clinical privileging of ECT, should occur every second year.



11.3 PROGRAM AUDIT

11.3.1 Licensing Standards & Review Unit (LSRU)

Audit of standards in private ECT facilities will be carried out annually by LSRU as part of their normal licensing activities. This is to ensure services continue to comply with the licensing provisions of the *Hospitals and Health Services Act 1927*. It is recommended that public facilities also undertake this audit on a voluntary basis.

11.3.2 Office of the Chief Psychiatrist

The OCP will carry out clinical governance reviews on a periodic basis to assure that clinical standards are being maintained.

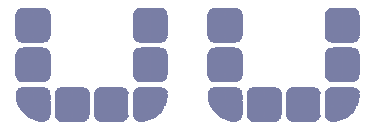
11.4 INFORMATION TO BE KEPT BY HEALTH SERVICES

11.4.1 The following information is considered essential for Health Services to maintain, in order to understand their own appropriate use of ECT as a therapy, and for potential inter-hospital comparisons by the DoH. There should be a record of the following variables for each individual patient-

- a) Age;
- b) Sex;
- c) U.R. Number;
- d) Whether this is an index course or maintenance course of ECT;
- e) Whether this is an inpatient or outpatient;
- f) Dates of treatment;
- g) Name and designation of the treating psychiatrists;
- h) Name and designation of the psychiatrist, psychiatric medical officer or psychiatric registrar administering the treatment;
- i) Any side effects or complications that occurred during the course of ECT;
- j) The primary diagnosis as a reason for requiring ECT;
- k) The indications for ECT;
- l) A statement about previous ECT response;
- m) Whether the patient was voluntary or involuntary;
- n) Elements of pre-ECT workup completed;
- o) Basic outcome measures, including a cognitive scale, the clinical Global Impression Scale, a depression scale, and a patient satisfaction measure (qualitative or quantitative);
- p) The reason ECT is stopped;
- q) The number of unilateral and bilateral treatments;
- r) Treatment location (name of hospital).

11.4.2 Having maintained these individual records, Health Services should be able to collate the following data for inter-unit and inter-regional comparisons when required

- a) The number of inpatients and outpatients per year having an index course of ECT;
- b) The number of patients having maintenance ECT each year on an inpatient or outpatient basis;
- c) The age range and distribution of ECT treatment by sex;
- d) The average number of treatments for an index episode;
- e) The average number of treatments per year, per person, for maintenance ECT;



- f) A list of the primary diagnosis of the patients undergoing ECT;
- g) A list of complications related to ECT.
- h) Basic outcome measures;
- i) Reasons for stopping ECT.

11.4.3 A recommendation made as part of the Review of the MHA and accepted by Government will require that the person in charge of mental health care services where ECT is performed will provide a monthly statistical report to the Chief Psychiatrist of the number of patients who completed a course of ECT during the month, the total number of ECT treatments received by each patient and whether each patient was an involuntary or voluntary patient. A section of the new MHA will empower the Chief Psychiatrist to prescribe a standard form by regulation for the purpose of these monthly statistical reports.

11.5 DISCUSSION

11.5.1 Indications For Use

In April 2003 the U.K's National Institute for Clinical Excellence (NICE) issued it's "Guidance on the use of Electroconvulsive Therapy". This states amongst other things that:

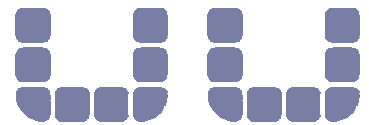
'It is recommended that ECT is used only to achieve rapid and short-term improvement of severe symptoms after an adequate trial of other treatment options has proven ineffective and/or when the condition is considered to be potentially life-threatening, in individuals with:

- a) • severe depressive illness
- b) • catatonia
- c) • a prolonged or severe manic episode.'

11.5.2 This position has been challenged by the Royal College of Psychiatrists (RCP) Special Committee on ECT and the Scottish ECT Audit Network (SEAN) who disagree with the interpretation of the evidence. Their position is that:

- a) ECT is indicated for the treatment of moderate, in addition to severe, depressive disorder;
- b) ECT can be a treatment of first choice where:
 - a. The patient chooses the treatment because of previous good response;
 - b. The patient has severe psychotic depressive disorder unlikely to respond to other treatments;
 - c. The patient has depressive stupor or such severe physical retardation that they are at physical risk.

11.5.4 It is recommended that psychiatrists practicing in Western Australia follow the indications for use contained in The ECT Guide: *The Chief Psychiatrist's Guidelines for the use of Electroconvulsive Therapy in WA*. Whilst indicating which conditions ECT is best suited to resolve, The ECT Guide: *The Chief Psychiatrist's Guidelines for the use of Electroconvulsive Therapy in WA* also allows the psychiatrist sufficient flexibility to accommodate cases that fall outside the norm.

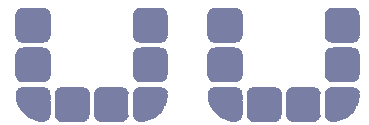


11.6 SPECIAL POPULATIONS

11.6.1 The NICE guidance further states that:

'The risks associated with ECT may be enhanced during pregnancy, in older people, and in children and young people, and therefore clinicians should exercise particular caution when considering ECT treatment in these groups.'

11.6.2 Whilst *The Chief Psychiatrist's Guidelines for the use of Electroconvulsive Therapy in WA* outline precautions to be taken when dealing with special populations, the NICE guidance on children, young people, older people and pregnancy should also be carefully noted.



DISCLAIMER

The Chief Psychiatrist's Guidelines for the use of Electroconvulsive Therapy in WA attempt to be as comprehensive as possible but are not able to cover every eventuality or query as the circumstances of individuals and patients psychiatric treatment differ enormously.

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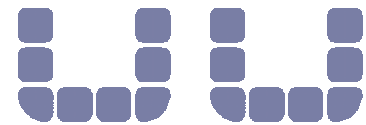
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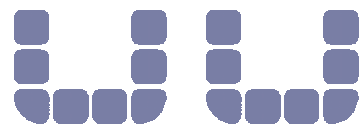
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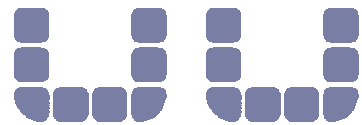
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Appendix

Consent Form for ECT: This form was devised by the Office of Safety and Quality and the Office of the Chief Psychiatrist, Department of Health (WA) and is recommended for use to obtain a patient's consent for ECT. It consists of 2 pages which must not be separated. Page 1 considers the proposed treatment and the issues of risks. Page 2 consists of a declaration by the patient to the consent and acknowledgement of information received including a copy of the form and a declaration by the doctor, second psychiatrist and interpreter where appropriate.

It is not mandatory to use this form but it is recommended for the sake of consistency across services providing ECT.

| | | | | |
|---|--------------------|--|-----------------|------------|
| Affix Hospital Identification Here CONSENT FORM FOR ELECTROCONVULSIVE THERAPY (ECT) (PAGE 1 of 2) | SURNAME | | UMRN | |
| | GIVEN NAMES | | DOB | SEX |
| | ADDRESS | | | |
| | SUBURB | | POSTCODE | |

This form is to be completed giving due consideration to the -
 “Consent to Treatment Policy for the Western Australian Health System”

PROPOSED TREATMENT

Electroconvulsive therapy is proposed for *(name of patient)* _____
 for the following reasons *(doctor to list reasons)*: _____

ELECTROCONVULSIVE TREATMENT (ECT)

ECT is given under a general anaesthesia, so the patient is asleep during the treatment and will not feel or remember anything. During ECT, electrodes are put onto the scalp and an electric current is passed briefly through the electrodes to the brain, which causes a seizure (a ‘fit’). A muscle relaxing drug is given once the patient is asleep, to limit body spasms. Consent is given for a specified number of treatments in one course. Further courses require a new consent form to be completed.

RISKS

These are the commoner risks. There may be other unusual risks that have not been listed here. Please ask your psychiatrist if you have any general or specific concerns.

☐ I understand there are risks associated with any anaesthetic *(see separate Anaesthetic Consent Form)*.

☐ I understand that I may have side effects from any of the drugs used. The commoner side effects include light-headedness, nausea, skin rash and constipation.

☐ I understand the procedure has the following specific risks and limitations:

Immediately after treatment:

- I may feel nauseated, have some muscle soreness and/or have a headache.
- I will probably be somewhat confused.
- With modern techniques, there is a very small risk of bone fractures or dislocations.
- I may have heart rhythm or blood pressure changes, but these will be monitored closely during and after the procedure and treated if necessary.

Later consequences

- I may have short-term memory difficulties for some time after the procedure, and find it difficult for example to remember recent conversations or things I have just read.
- I may also have some difficulty remembering past events, such as dates, names of friends, phone numbers. If this affects me, it may be mild and may last for an unpredictable length of time. In some people, memory loss may be severe and can even be permanent.
- Some people complain of more severe memory loss, which is generally confined to the period around the time of the ECT treatment. There is no evidence that individuals’ ability to construct new memories is affected in the long term.
- There is an extremely small risk of death from the procedure.

☐ I understand some of the above risks are more likely if I smoke, am overweight or have heart disease, high blood pressure or diabetes.

DISCLOSURE OF MATERIAL RISKS (to be completed by psychiatrist if necessary)

I understand the following are possible significant risks and complications specific to my personal circumstances, that I have considered in deciding to have this treatment: _____

DECLARATION BY PATIENT

- ☐ I consent to a course of _____ treatments (*patient to complete number of treatments; maximum 12*)
- ☐ I acknowledge the psychiatrist has informed me and provided me with written information about the procedure, available alternative treatments and answered my specific queries and concerns about this treatment.
- ☐ I acknowledge that I have discussed with the psychiatrist any significant risks and complications specific to my personal circumstances that I have considered in deciding to have this treatment.
- ☐ I understand I can change my mind at any stage, even after a course of treatment has begun, without affecting my future health treatment, or any other treatment of the condition for which ECT has been proposed.
- ☐ I have not been guaranteed the treatment will be successful, and I understand the treatment is not a long-term cure for the condition, so I may still relapse in future.
- ☐ I understand that a doctor other than the specialist psychiatrist may perform the procedure. The doctor treating me will have been appropriately trained in the technique.
- ☐ I have received a copy of this form.
- ☐ If a needlestick/sharps injury occurs to staff during any operation I give my permission for blood to be taken and tested for HIV and other blood borne disorders. I understand I will be advised and counselled as soon as practicable after the treatment if this has been necessary.

Patient's Full Name _____ **Patient's Signature** _____ **Date/Time** _____

Witness to the patient's signature. Name and signature of witness _____

Advocate/Carer's Signature _____ **Date/Time** _____

Relationship to Patient _____

DECLARATION OF DOCTOR

- ☐ I declare that I have explained the nature and consequences of ECT, and discussed the risks that particularly concern the patient.
- ☐ I have given the patient, and the patient's carer or advocate where involved, an opportunity to ask questions and I have answered these.

FULL NAME (please print) _____ **POSITION/TITLE** _____

SIGNATURE _____ **DATE** _____

INVOLUNTARY PATIENT OR MENTALLY IMPAIRED ACCUSED (where applicable)

The treatment has been recommended by the treating psychiatrist and the recommendation is approved by:

Name and signature of psychiatrist _____ **Date/Time** _____

INTERPRETER'S DECLARATION

Specific Language Requirements (If Any) _____

Interpreter Services Required: ☐ Yes ☐ No

I confirm that I have accurately interpreted the contents of this form, the material risk information sheet and the related conversation/s between the patient/person giving consent and the doctor.

Interpreter's Signature _____ **Date** _____

FULL NAME (please print) _____