POLICY ON A PAGE

This ECT policy documents the process involved in administering ECT to patients across the BHSCT.

This policy includes the following:

- Patients will be provided with appropriate information about the ECT process. Informed consent will then be sought and a capacity assessment will take place.
- ECT can be delivered when a patient lacks capacity to give informed consent in accordance with the Mental Health Order (MHO) NI 1986.
- An Integrated Care Pathway (ICP) has been developed and will include information pertaining to the patient's pre – ECT physical assessment, indication for ECT, the recording of ECT delivery and the post ECT management. This will be completed by all members of the MDT involved in the ECT process.
- A patient's response to treatment is monitored using the Clinical Global Impression and Severity Score (CGI-I and CGI-S) and the Montgomery-Asberg Depression Rating Scale (MADRS).
- All patients undergo a physical health assessment including examination and necessary investigations ensuring they are medically fit to receive ECT.
- The RMO is to review medication prior to and during the ECT course making adjustments as necessary.
- The Psychiatrist administering ECT uses stimulus dose titration facilitating the identification of a patient's seizure threshold.
- The anaesthetist ensures the patient is adequately sedated before ECT delivered.
- Appropriate procedures need to be followed by the ECT team in the event of a failed or prolonged seizure.
- ECT can be given to the elderly population, those with learning difficulties and patients under 18 years of age with appropriate modifications being made to the process depending on the patient's needs.
- ECT is given to patients as a continuation or maintenance treatment
- ECT is available to patients being cared for n the community (this will involves the community mental health team or with the Home Treatment Team)

This POP summarises the key policy principles, or 'headlines', of the Policy entitled (insert). For further information or to review the full policy, please read on:

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1.0 INTRODUCTION / PURPOSE OF POLICY

1.1 Background

Electroconvulsive Therapy (ECT) has been used since the 1930s for the treatment of severe depressive illness. The commencement of dual channel monitoring combined with stimulus dose titration ensures the safest and most effective delivery of ECT.
NICE guidance recommends ECT to be considered for the acute treatment of severe depression that is life threatening and when a rapid response is required or when other treatments have failed. ECT is not routinely recommended for people with moderate depression but is to be considered if their depression has not responded to multiple drug treatments and psychological approaches. NICE recommends ECT be considered for the treatment of acute mania that has not responded to other interventions.

1.2 Purpose

This policy aims to provide clarity of the roles and responsibilities of all staff involved in the ECT process within the BHSCT.

This policy is to be read in conjunction with the following guidelines and policies:

- Operational guidelines for consent in mental health care
- Infection control policy
- COSHH guidelines
- Policy for untoward Events
- Policy to be followed when obtaining consent for examination, treatment or care in adults and children

1.3 Objectives

This policy and accompanying procedures, guidelines and protocols aim to clearly identify the action to be taken in all instances of a patient requiring ECT. This includes:

- Guidelines for patient preparation at ward level
- Guidelines for the capacity assessment
- Policy for consent process
- Guidelines for ECT Clinic
- Protocol for ECT using spectrum 5000m
- Protocol for the management of problematic treatments
- Protocol for ECT in the elderly, those with learning disability and those under 18 years
- Protocol for maintenance/continuation ECT
- Protocol for discontinuation of ECT
- Guidelines for prescribing outpatient ECT

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- Guidelines for ECT session management
- Guidelines for medical staff administering ECT

1.4 Glossary of Terms

The following abbreviations will be used in this policy:
RMO – Registered Medical Officer (Patient's Community/Inpatient Psychiatry Consultant)
MDT – Multi-disciplinary Team (The collective range of Heath care professionals involved in the patients care)
MMSE – Mini-Mental State Examination, (A cognitive screening tool)

2.0 SCOPE OF THE POLICY

This policy applies to all staff members of the BHSCT involved either directly or indirectly in the preparation, delivery and administration of ECT.

3.0 ROLES/RESPONSIBILITIES

Medical director
The medical director is accountable for ensuring that the ECT policy, protocols and guidelines are fit for purpose and their effectiveness is evaluated.
He/she will seek assurance from Directors that the policy is implemented and practice is consistent with policy.

Directors
Directors with responsibility for clinical or social care services will be accountable for ensuring that:

- The policy and guidelines are implemented in all services provided
- When the need for ECT training is identified, it is resourced

Health or social care professionals
It is a health or social care professionals own responsibility to:

- Be fully aware of the documentation currently in use when considering ECT
- Work within their own competency levels and not to agree to perform tasks which exceed their own competences

4.0 KEY POLICY PRINCIPLES

4.1 Definitions

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ECT – ECT describes the process of administering an electrical stimulus which induces a seizure. It is this seizure which promotes improvement in mental health.

Key Policy Statement(s)

4.2 ECT Integrated Care Pathway (ICP)

All patients undergoing ECT will have an **ICP**. This records all specific information relating to their treatment including the referring consultant's diagnosis and rationale for ECT, pre ECT health assessment and a record of each ECT session including post session recovery information.

4.3 ECT Information leaflet

All patients should be provided with a fact sheet relating to ECT, including those patients who are deemed unable to consent. This fact sheet explains key information, is up to date and has been developed with service user consultation.
When necessary, information will be made available in languages other than English with consideration given to seeking an interpreter as appropriate. Information can be sought in a format which people with sight, learning and other disabilities can use.

4.4 Capacity

The RMO carries out a capacity assessment ensuring the patient:

- Understands and retains information regarding the ECT process
- Appreciates the relevance of this information
- Can weigh the information as part of a decision making process
- Can communicate their decision

The capacity assessment should be documented in the patients notes and confirmed on the ICP

Capacity should be reviewed by the referring team prior to each ECT treatment. Changes to assessed capacity should be noted in the case notes and the ICP.

Before each ECT treatment, the ECT team will confirm that the patients presentation concurs with the capacity assessment (including those patients who have received a formal second opinion under the Mental Health Order). If the patient's presentation does not concur with these findings, this is escalated to the referring team.

For patients detained under the Mental Health Order (NI) 1986 who are assessed to have capacity to consent to ECT, a form 22 should be completed by the referring consultant in addition to a consent form.

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For detained patients not able to give valid consent, a second opinion can be provided by a consultant psychiatrist appointed by the Regulation and Quality Improvement Authority (RQIA).

4.5 Consent

Consent is obtained by a consultant psychiatrist (or another competent doctor designated by the consultant) with adequate knowledge of the nature and effects of ECT. The psychiatrist accesses all relevant information contained within the patient's notes including their medical history prior to seeking consent.

Patients are provided with information (both in written and verbal formats) allowing them to give informed consent.

This information covers the following:

- the nature of the treatment and a description of the process
- the purpose and benefits of treatment including likelihood of success
- the risks and likelihood of adverse effects
- the relative risks of possible impact of ECT on cognition
- the likely consequences of not having ECT
- treatment alternatives and confirmation that these will be available if the patient decides not to have ECT
- the patient's rights in relation to ECT

Patients are informed about how to obtain additional information and access independent advocacy services. For a new course of ECT, except in an emergency, the patient is given at least 24 hours to reflect on information about ECT and discuss with relatives, friends or advisors before making their decision.

The consent process should be recorded in the patient's nots and confirmed on the ICP. The consent form should accompany the ICP in the patient's notes and be available in the ECT clinic. Clinic staff will check for the original and valid on-going consent within the patient notes before each treatment.

The **consent form** should specifically include confirmation that the consultant psychiatrist (or another competent doctor designated by the consultant) has discussed with the patient:

- What the procedure involves, including anaesthesia
- the intended benefits of ECT
- any serious/frequently occurring risks including dental risks
- the transient side effects
- the benefits and risks of any alternative available treatments (including no treatment)
- any particular concerns the patient may have.

The consent form should also include information on what written information has been provided to the patient, and a statement from an interpreter when applicable.

Patients need to understand that their consent can be withdrawn at any time and that fresh consent is then required before further treatment can be given.

Patient's relatives should be consulted about the treatment unless issues about patient confidentiality preclude this. If patient's relatives are not consulted, the reason for this should be documented in the case notes.

Please refer to the BHSCT policy on consent for further information.

4.6 Side Effects of ECT

Patients should be informed of the side effects of ECT as part of the consent process. Please see **appendix 1** for further information. Physical and cognitive (subjective and objective) side effects should be enquired about between treatments and recorded in the ICP.

4.7 ECT and NICE guidelines

The referring psychiatrist must state that the referral for ECT is within NICE guidelines or indicate the reason for any exception. Before ECT is prescribed outside of NICE guidelines, the referring psychiatrist should discuss the case with the ECT consultant. Patients are informed if they have received ECT outside of NICE guidelines. All decisions and information discussed should then be clearly documented in the patient notes and in the ICP.

4.8 Monitoring the response to treatment

The Clinical Global Impression of Improvement and Severity (CGI-I, CGI-S) in addition to the Montgomery-Asberg Depression Rating Scale (MADRS) will monitor a patient's response to ECT. These should be completed by the referring team as part of the routine pre-ECT assessment and documented in the ICP.

4.9 Physical investigations

Physical investigations are required before ECT is delivered. The nature of these investigations depends on the individual patient's physical health status. Please see **appendix 2** for further information. Results of any investigations carried out should be made available in the patient notes and ICP prior to commencement of ECT. Concerns about a patient's physical health / fitness for anaesthesia or abnormal findings on investigation and examination should be discussed with an anaesthetist prior to commencing treatment.

4.10 Medication

Medication during the course of ECT
All medication for physical health conditions should be continued as normal during ECT unless indicated otherwise as part of an anaesthetic assessment. Advice on anti-epileptics and psychiatric medication during ECT in included in **appendix 3**. This can be discussed with ECT psychiatrist if required.

Medication on treatment days
As a general rule all morning medication should be omitted on day of ECT to be given once ECT is complete, **except:**

- Beta blockers
- Proton pump inhibitors
- H2 Antagonists

All of which *should* be given on morning of ECT

The patient's routine drug regime is reviewed at the start treatment. An individualised medication plan for treatment days agreed upon and recorded by the ECT psychiatrist in the ICP. This is reviewed during the course of ECT.

Any concern regarding medication liable to effect ECT treatment should be discussed with the ECT consultant prior to treatment.

4.11 The ECT Clinic

The ECT clinic can occur in a BHSCT location with the following facilities:

- A dedicated waiting area for patients pre-treatment
- A ECT treatment room which includes adequate space for ECT and Anaesthetic equipment
- A dedicated recovery space for patients post ECT
- A waiting area for patients post –treatment

Presently, the ECT clinic occurs in the Mater Hospital Day Procedure Unit. There may be occasions where use of operating theatres may be necessary to administer ECT

The ECT clinic is held twice weekly on a Tuesday and Thursday. Additional clinics may be held dependent on patient/service need

It is mandatory for the following staff to be present for the ECT clinic to go ahead:

- An administering Psychiatrist who has met RCPsych Competencies and is ILS trained (see 4.26.2)
- An Anaesthetist (Consultant, Higher Trainee or Speciality Doctor)
- A lead ECT nurse (see 4.26.3)
- An anaesthetic nurse or nurse competent as operating assistant
- A minimum of two other RMNs who have experience in ECT administration and recovery (Both should be BLS trained) (see 4.26.5)
- Nurse escorts for each patient (see 4.26.4)

- ECT is administered using the Spectrum 5000m (see 4.14). An additional back up machine is available at the ECT clinic in the scenario of mechanical failure

- Guidelines for use of anaesthesia within the ECT clinic follow the SOPs for General/Regional anaesthesia within the BHSCT. Protocols for this can be accessed on the BHSCT Loop

- The ECT clinic will follow published BHSCT guidelines in the exceptional event of Anaphylaxis, Malignant Hyperthermia or a Cardio-pulmonary arrest occurring within a treatment session

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4.12 Electrode Placement

Bilateral ECT (also known as bitemporal) is the standard form of ECT delivery. The electrodes are placed on both temples 4cm perpendicularly above the midpoint of a line joining the lateral canthus of the eye and tragus of the ear.

Unilateral ECT involves placing the electrodes 3cm lateral to the vertex on the right hand side and the other 4cm above the midpoint of the line joining the outer canthus and the tragus of the ear.

Unilateral ECT is preferred when minimising cognitive adverse effects has priority and the rate of clinical improvement is not critical.

4.12 Stimulus dose titration

Stimulus dose titration describes the process of administering successive doses of electrical stimuli until a satisfactory seizure is produced. This is carried out during the first session of ECT. Stimulus dose titration allows a patient's seizure threshold to be identified. This is defined as the minimum charge required to induce unequivocal ictal EEG activity. See **appendix 4** for the doses of electrical stimuli

4.13 Emergency ECT

ECT can be given as an emergency treatment to patients who are unable to or have refused consent with a severe depressive episode, psychomotor retardation and associated problems of poor oral intake and physical deterioration. In these situations, bilateral ECT is the treatment of choice as it works faster.

A clear statement that the patient requires emergency treatment and the rationale for same should be recorded in the medical notes and the ICP prior to treatment.

For these patients, due to the nature of their condition, it is often necessary to deliver the ECT before a second opinion from a part IV doctor can be sought

When considering emergency ECT, the RMO should discuss the case with the ECT consultant.

4.14 Protocol for ECT therapy using the spectrum 50000M

- The ECT lead nurse will undertake a visual inspection of the machine and calibrate according to manufacturers guidelines. The ECT Lead nurse will ensure both EEG channels are recording and programme the machine to complete an internal system check.
- The psychiatrist administering ECT is to turn on the master switch at least 5 minutes prior to treatment to allow the capacitors to charge fully.
- The psychiatrist prepares the electrodes with alcohol wipes and jelly.
- The psychiatrist/ECT nurse then attaches the EEG electrodes using tape (bilaterally in mastoid position, one above each eyebrow one on the centre of the forehead). An EEG test strip is then carried out.
- The anaesthetist pre – oxygenates the patient then administers induction agent and muscle relaxant before inserting the disposable mouth guard.
- If initiating a new course, establish stimulus threshold. If administering subsequent courses, adjust the machine to the same dose as previous (this may change as treatment progresses).

- The psychiatrist places the ECT electrodes on the head (bilateral or unilateral position – see above 4.11). Once sufficient contact is made between the electrodes and the skin, a green light will show on the machine. The doctor then says the word 'treating' aloud and presses the stimulus button on the handset, holding it down for the duration of the three beeps.
- All staff should observe and time the subsequent seizure ending when all muscle contraction has seized. The EEG print out should then be checked also for duration of seizure activity.

4.15 Post ECT treatment

Following ECT, the psychiatrist and anaesthetist should remain in the nearby area until all patients regain consciousness. The nursing staff will carry out appropriate post procedure physical observations as outlined in the ICP.
All patients are reviewed by the psychiatrist in the ECT clinic prior to discharge, assessing for any adverse effects.

4.16 Before subsequent treatments

As part of the ICP, the patient should be reviewed by the RMO or member of the MDT, carrying out the pre-treatment medical assessment which includes the MMSE, side effect screen and changes in mental health.

4.17 Problematic treatments - Failed seizures/ self-test failure

A failed seizure occurs when there is no evidence of generalised tonic activity or if a seizure does occur, it lasts less than 5 seconds. This can occur for a variety of reasons and consideration should be given to the reasons for this. If the problem is thought to be due to remediable factors such as dehydration or medications such as benzodiazepines, efforts should be made to modify these before the next treatment. For these patients, there is no need to make any adjustment to the original stimulus level.
If no remedial factors can be identified, consideration should be given to re - stimulating the patient (20 seconds after the first stimulation). For these patients, ensure the patient remains anesthetised before increasing the dose of electrical stimulation by 25%. If this increased stimulation generates an inadequate response, do not re-stimulate again. Subsequent treatments should be administered at this increased level of electrical stimulation (the dose may continue to increase based on clinical response).
If a patient's seizure shortens during the treatment course by more than 25% or to below 10 seconds, the stimulation dose should be increased by 25%.
A patient's clinical response is very important in determining the dose of electrical stimulation to be given. If the patient fails to improve after 2-3 treatments, the dose should be increased by 25%
The dose should not be increased more than 3 times the seizure threshold for bilateral ECT or 8 times the threshold for unilateral treatment.

4.17.1 Prolonged seizures

For seizures lasting longer than 120 seconds, terminate with either extra doses of the initial anaesthetic or with IV benzodiazepine.
If subsequent ECT is to be given, the dose will be reduced by at least 25%.

4.17.2 Monitoring and managing cognitive impairment

The patient's orientation and memory is assessed before and after the first ECT, and re-assessed at intervals throughout the treatment course, using a standardised cognitive assessment tool.
If marked cognitive impairment is identified by the RMO or ECT team, then this assessment should be shared with all involved in their care with the decision to continue treatment being reviewed.
For these patients, if the decision is made for treatment to continue, the dose of electrical stimulation should be reduced by at least 25%.
Consideration should be given to switching from delivering bilateral to unilateral ECT. All patients should have their capacity to consent reviewed.

4.17.3 Untoward event

Should an untoward event occur, the ECT team should follow appropriate guidelines for initial management and contact the medical team as appropriate. An incident form should be completed and consideration should be given to meeting for a critical incident analysis and debriefing.

The ECT clinic will follow published BHSCT guidelines in the exceptional event of Anaphylaxis, Malignant Hyperthermia or a Cardio-pulmonary arrest occurring within a treatment session. Treatment protocols for these events are visibly displayed within the ECT clinic.

4.18 ECT session Management

There will be a maximum of eight patients per session. If a referral is made while the list is at capacity, a waiting list will be created with referrals placed in chronological order. In the event of an urgent referral, priority will be based on clinical need. This will be discussed with the referring team however the final decision will be made by the ECT team. They can consider increasing the number of patients treated during each session (weighing up risks and benefits of same) and involving the medical team in reviewing patient need to continue with ECT.
In some circumstances, consideration will be given to ECR referral.

4.18.1 Follow up

Patients should be reviewed by their referring team monthly for 3 months and at 6 months. These reviews should include objective assessments of cognition, enquiry of subjective cognitive impairments, MADRS score and CGI-I and CGI-s scores.

Both the referring and community consultant of the patient will be informed of the above at the end of treatment. The ECT team will also email reminders at appropriate intervals to ensure the above is completed.

4.19 ECT in the Elderly

Older adults across the BHSCT will have access to ECT. All co-existing medical or surgical conditions should be stabilised prior to ECT. Treatment will take into account the increased likelihood of a raised seizure threshold and increased risk of cognitive impairment resulting from ECT.

4.20 ECT in people with Learning disability

ECT should be considered for patients with a learning disability when their psychiatric disorder has proved refractory to medical treatment, where there are intolerable adverse effects to medication or where the clinical condition of the patient had deteriorated severely.

4.21 Protocol for ECT in those under 18 years

ECT is available to those under 18 years of age within the BHSCT. For these patients, a second opinion is sought from a consultant psychiatrist appointed

by the RQIA. Provided they are in agreement ECT is in the best interests of the patient, it will proceed. Parents and children should be involved in the consent process.
Stimulus dosing should take into account the lower seizure threshold in younger people with the initial stimulus being at the bottom end of the range. The ECT sessions for those under 18 years of age are held separately from clinics delivering ECT to adults. Special arrangements will be made to see and treat these patients before or after the ECT session for adults meaning those under 18 would have no contact at the ECT clinic with adults receiving ECT.

4.22 Protocol for maintenance/ continuation ECT

Continuation ECT aims to prevent relapse of the index episode of illness (this can be described as prophylactic treatment over the first six months of remission) and maintenance ECT prevents further episodes of illness. Continuation ECT should be considered for patients who have a relapsing or refractory depression that has previously responded well to ECT but for whom standard pharmacological and psychological continuation treatment is ineffective or inappropriate. Such patients may include:

- those who have had early (0-6 months) post ECT relapse not controlled by medication
- those with later recurrence (6-12 months) not controlled by medication,
- patients who cannot tolerate prophylactic medication
- those who repeatedly relapse because of poor adherence
- Patients who request ECT to be continued.

Patients being considered for continuation ECT should have their case reviewed ensuring their diagnosis is correct, ECT has proved beneficial and alternative options have been explored.
Consent for maintenance/continuation ECT is obtained (see section **4.4**) and a second opinion should be considered.

When in the acute phase of mental illness, twice weekly ECT is preferred until clinical response achieved. Physical and psychological factors will influence how this is approached in each individual so a rigid structure to treatment is inappropriate although typically the following frequency reduction has been employed:

- Twice weekly until clinical response achieved
- Reduce to weekly
- Reduce to every 10 days
- Reduce to every 2 weeks
- Reduce to every 3 weeks
- Reduce to monthly.

For patients who are not commencing continuation ECT immediately after acute ECT, it may be possible to begin at a lower frequency of about every

two weeks. Routine review of efficacy should be undertaken after every two sessions in the first instance and review frequency monthly.
The frequency of ECT can then be gradually reduced to monthly ensuring patient's clinical condition does not deteriorate with this reduction in ECT.

Relapse is most likely during the first 12 months of recovery therefore continuation ECT should be given for at least one year after recovery. After one year, the patient's mental health team can review the need for long term ECT (maintenance ECT) or consider discontinuation of ECT.
For maintenance ECT, the course can be continued indefinitely.

4.23 Discontinuation of ECT

The prescribing and discontinuation of ECT are the decision of the patient's RMO. The decision to discontinue ECT may also take place in the context of discussion with the ECT consultant and/or anaesthetist in the light of adverse reactions, poor efficacy or because the patient has withdrawn consent.

4.24 Duration of treatment

No set course should be prescribed but rather patients should be reviewed after each session by their own team to assess suitability for further treatment. If no clinical improvement is seen after 6 bilateral treatments, then consideration should be giving to stopping treatment. If patients are receiving unilateral ECT, the team can consider switching to bilateral.

4.25.1 Duties of the RMO

The RMO is responsible for prescribing, reviewing and terminating a course of ECT. They are responsible for all issues relating to informed consent and the use of legislation. It is their duty to ensure the ICP is completed and the patient's medical health is optimised communicating any issues to the treating anaesthetist. The RMO ensures a patient's cognitive status is established prior to treatment and reviewed during treatment.

4.25.2 Duties of the Psychiatrist administering ECT

There is at least one suitably trained psychiatrist present during treatment, as defined by the Royal College of Psychiatrists' (RCPsyc) competency document. The lead psychiatrist is responsible for developing protocols for the prescription of ECT by his or her peers in order to update their prescribing practice. Together with the ECT team and management, the ECT consultant must ensure procedures; equipment and facilities comply with the RCPsych guidelines.

4.25.3 Duties of the ECT specialist nurse

ECT specialist nurses have knowledge of the ECT process, complications and possible side effects of the treatment. They can meet with patients and relatives providing information in relation to ECT and address any queries they may have.
The ECT specialist nurse ensures all nursing checks are carried out throughout the process, a patient's legal status is clear and consent provided. During ECT delivery, they will check the dose and confirm this verbally with the psychiatrist before timing the seizure. The ECT specialist nurse will assist in placing the patient in the recovery position following the seizure before escorting them through to the recovery area.
Following treatment, the ECT nurse will review the patient addressing any queries or concerns they may have.
They are responsible for ensuring that equipment within the department is tested and working correctly. This involves ensuring the necessary checks are carried out on machines every year or according to machine guidance. The lead nurse is trained in Immediate Life Support (ILS).
The ECT specialist nurse is involved in clinical governance preforming audit and risk assessment in addition to staff training.

4.25.4 Duties of the nursing escort

The nursing escort accompanies the patient to the ECT suite, staying with them for the duration of their treatment. They should be trained in airway management and have up to date training in Basic Life Support (BLS) with good knowledge of the ECT process, the side effects and the actions required if these occur. They should be familiar with the clinical environment and location of emergency equipment.
The nursing escort should know the patient they are escorting, be aware of their legal status, consent and medical complications/history.
The nursing escort remains with the patient in the recovery room, providing support and orientation until their return to the ward.

4.25.5 Duties of the nurse in charge of recovery

There should be a minimum of two appropriately trained nurses at all times during the recovery process.
They should be familiar with the ECT clinic and location of emergency equipment and be competent in all aspects of BLS and ILS. They will receive a handover from the anaesthetist being aware of any complications that may have occurred. The nurse monitors the patient as they recover from the procedure, orientating them to their situation and environment.
They will complete all relevant documentation within the ICP and ensure the patient is not discharged from the department until fully recovered.

4.25.6 Duties of all clinic staff

All clinical staff present during a treatment session have received training in BLS.
In addition to the anaesthetist, one member of staff present during the ECT clinic is trained in ILS.
The ECT equipment should be decontaminated, maintained and services as the manufacturer's guidelines and in accordance with the Trust's Medical Devices Procedures & Guidelines

4.25.6 ECT for patients in the community

Serious consideration should be given prior to prescribing a course of ECT for patients in the community.

Factors that should influence the decision include:

- Fast from 12 midnight and take only the medication indicated by their Consultant
- The patient should arrive at the ECT suite at a prearranged time accompanied by a responsible adult.
- A suitably trained escort from the patient's mental health team should remain with the patient in the ECT suite until recovery
- The ICP is completed just as is the case for inpatient ECT. This involves the patient's own team carrying out and recording the necessary physical examination and investigations A patient's past and present medical condition
- Previous anaesthetic complications
- Previous complications or side effects with ECT
- Support available at home
- Reliability in taking or omitting medication as prescribed
- Ability to retain information given to them (to fast from 12 Midnight prior to treatment)
- A history of suicidal ideation. Be aware that suicidal risk may increase in the early stages of treatment as level of depression may remain static but volition may improve.
- Employment/ driving situation. Ensure patients are aware they cannot drive for 24hours duration post anaesthesia.

With these factors being considered, if ECT is still felt to be appropriate for a patient in the community setting, then proceed as follows:

- The team looking after the patient should follow the consent process just as is necessary for inpatient ECT
- The patient should then be booked onto the ECT list
- The patient's team should ensure their GP has been informed
- The evening prior to treatment the patient should fast pre ECT and monitoring and recording the patient's progress throughout the course of ECT.
- Following treatment the patient must remain in the unit for a minimum of 90 minutes

- Prior to discharge the patient must be reviewed by a doctor before being deemed safe to leave the unit.
- The patient should be accompanied home by a responsible adult and informed they cannot drive for 24hours post ECT. The responsible adult should remain with them for 24 hours and sign the Outpatient Agreement Form.
- Patient can be reviewed by their outpatient team after each treatment and weekly by the consultant.

5.0 IMPLEMENTATION OF POLICY

5.1 Dissemination

This policy is relevant to all employees of the trust who are directly or indirectly involved with ECT.
This policy will be implemented from its date of approval.

5.2 Resources

This policy can be access via the BHSCTintranet. The ECT process will be audited internally ensuring its practice is in keeping with the standards set out in this policy.

5.3 Exceptions

This policy applies to all sites and trusts across the BHSCT.

6.0 MONITORING

ECT practice within the BHSCT will be audited ensuring our practice is in keeping with standards outlined in this policy.

7.0 EVIDENCE BASE / REFERENCES

Waite J and Ferrier N. The ECT handbook (4th[rd] edition). Published June 2019.
ECT Accreditation Service (ECTAS) Standards for the administration of ECT. 14[th] ed. January 2019.
NICE guidance depression Accessed September 2021
NICE guidance – ECT – Accessed September 2021
www.RCPsych.ac.uk

8.0 CONSULTATION PROCESS

9.0 APPENDICES / ATTACHMENTS

Appendix 1:

Side effects of ECT

Cognitive impairment: Usually short term resolving 15 days after treatment
(Autobiographical memory loss: this describes memories linked to emotion and may last up to six months after ECT)
Headache: 22%
Muscular aches: 9%
Nausea: 6%
Anorexia, weakness and drowsiness: frequently occur though mild
Mortality rate: 1/10,000 patient procedures
Mania: 20% risk of switch (same as antidepressant medications)

Appendix 2 :

Physical investigations required pre ECT

Urea and Electrolytes, Full blood count	All patients
Sickle cell test	Patients of African, Caribbean, middle Eastern, Mediterranean or Asian ethnic extraction.
Thyroid function test	All patients
ECG	All patients over 60 years and patients with known cardiorespiratory or renal disease, diabetes, irregular pulse or heart murmur.
Chest x-ray	To be carried out only after discussion with the anaesthetist, for example new onset or recent exacerbation of cardiopulmonary symptoms.
HBA1C	Patients with diabetes
International normalised ratio	Patients taking warfarin and anticoagulants
Liver Function Tests	Patients with cachexia, a history of liver disease or recent overdose
Pregnancy test	Female patients of child bearing age

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Appendix 3:

Medications and ECT

The table below shows the effect of some common psychotrophic drugs on ECT and recommendations for their use.

Medication	Effect on ECT/ Management of same
Antipsychotics (excluding clozapine)	May have effect on ECT. There is conflicting evidence regarding same.
Clozapine	Reduce seizure threshold in dose dependent way. Review
Lithium	May increase the adverse effects of ECT (memory loss). Consider need for Lithium. If not thought to have any benefit, stop same. If thought to be effective, then continue prescription but review regularly for adverse effects (delirium/confusion) and keep serum level at lowest effective dose.
Anti-epileptics	Can raise seizure threshold therefore balance risks/benefits or continuing them during ECT. If needed considering, withholding anti-epileptic dose on morning of ECT/ review dose.
Antidepressants	Limited data available. SSRIs thought to have minimal effect. Inform Anaesthetist if MAOIs are used. Tricyclics and Venlafaxine have been used but monitor for cardiac side effects
Benzodiazepines	May raise seizure threshold therefore review dose and consider stopping pre ECT.
Hypnotics	Can reduce seizure length when used the night before ECT therefore their use should be avoided
Acetylcholinesterase Inhibitors	Safe to use and may have beneficial effects in protecting the individual from cognitive impairment.

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Appendix 4

The table below shows the stimulus dosing schedule for spectrum 5000 for bilateral and unilateral electrode placement respectively.

Bilateral electrode placement

Pulse Width Settings (On Main Menu) **MAX in mS**	**LEVEL**	**TITRATION DOSE IN mC**	**TREATMENT DOSE (IF TITRATION SEIZURE >=20SECS)**	**TREATMENT DOSE (IF TITRATION SEIZURE 6-19SECS)**
1.0	**1**	**57.4**	**69.1**	**80.5**
1.0	**2**	**103.8**	**126.5**	**195.8**
1.0	**3**	**207.3**	**230.4**	**299.9**
1.0	**4**	**299.9**	**368.4**	**426.4**
1.0	**5**	**448.9**	**529.7**	**599.9**
1.0	**6**	**599.7**	**760.5**	**829.3**
0.7	**7**	**-------**	**760.4**	**760.4**
0.7	**8**			

Unilateral electrode placement

Pulse Width Settings (On Main Menu) **MAX in mS**	**LEVEL**	**TITRATION DOSE IN mC**	**TREATMENT DOSE (IF TITRATION SEIZURE >=20SECS)**	**TREATMENT DOSE (IF TITRATION SEIZURE 6-19SECS)**
1.0	**1**	**25.4**	**103.8**	**126.5**
1.0	**2**	**57.4**	**172.4**	**276**

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1.0	3	103.8	380	448.9
1.0	4	207.3	760.5	1032
0.7	5	-------	610.6	610.6
0.7	6	-------	760.4	760.4
0.7	7	80.6	460.8	

10.0 EQUALITY STATEMENT

In line with duties under the equality legislation (Section 75 of the Northern Ireland Act 1998), Targeting Social Need Initiative, Disability discrimination and the Human Rights Act 1998, an initial screening exercise to ascertain if this policy should be subject to a full impact assessment has been carried out.
The outcome of the Equality screening for this policy is:

Major impact ☐

Minor impact ☐

No impact. ☐

SIGNATORIES
(Policy – Guidance should be signed off by the author of the policy and the identified responsible director).

_____ **Date:** _____
Author

_____ **Date:** _____
Director

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