

Reference Number: UHB471 Version Number: 2	Date of Next Review: October 2021 Previous Trust/LHB Reference Number: 18MH
<p align="center">Electro-Convulsive Therapy (ECT) Procedural Guidance</p>	
<p>Introduction and Aim</p> <p>Electroconvulsive therapy (ECT) has an important place in modern mental health care, and continues to be used as an effective treatment for a number of mental health problems, principally depression. During administration of ECT an electrical current is passed through an anaesthetised person's brain to induce a generalised seizure.</p> <p>This document provides a framework for Cardiff and Vale University Health Board staff working with individuals with mental health difficulties prior to, during, and immediately following the administration of ECT. The document is designed to guide practice and to ensure that the rights and autonomy of service users are respected.</p> <p>The aim of these guidelines is to provide a framework for ECT to be administered in the Hafan Y Coed ECT clinic at Llandough Hospital, safely and consistent with national standards (including those issued by the Royal College of Psychiatrists ECT Accreditation Service [ECTAS]) and in accordance with current legal frameworks.</p>	
<p>Objectives</p> <p>The objectives of these guidelines are to ensure that before, during, and after the administration of ECT:</p> <ul style="list-style-type: none"> • the highest quality of ECT treatment and care are given; • service users are treated with courtesy and dignity, and with sensitivity to their particular needs; • ECT is administered lawfully. 	
<p>Scope</p> <p>This procedure applies to all of our staff in all locations including those with honorary contracts.</p>	
<p>Equality and Health Impact Assessment</p>	<p>An Equality and Health Impact Assessment (EHIA) has been completed and this found there to be no impact.</p>
<p>Documents to read alongside this Procedure</p>	<ul style="list-style-type: none"> • The Mental Health Act 1983 as amended by the Mental Health Act 2007, and the Mental Health Act 1983 Code of Practice for Wales the Act's associated Code of Practice. • The Mental Capacity Act 2005 and its Code of Practice

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	2 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

	<ul style="list-style-type: none"> • The Human Rights Act 1998. • The NICE Technology Appraisal no. 59 (Guidance on the use of electroconvulsive therapy, published in 2003), which provides guidance for the use of ECT in the treatment of catatonia, prolonged or severe manic episodes and schizophrenia. • The updated NICE guidelines on the treatment and management of depression in adults (published in 2009), which includes guidance for the use of ECT in the treatment of depression. • The third edition of the Royal College of Psychiatrists' Handbook on ECT (published in 2013). • ECT Accreditation Service (ECTAS) Standards for the administration of ECT fourteenth edition (published 2018)
Approved by	Mental Health clinical board Policy group

Accountable Executive or Clinical Board Director Dr Annie Proctor	Clinical Board Director
Author(s) Kara Hannigan Professor George Kirov Dr Maria Seruis Dr Magdi Shafik Julia Barrell Sunni Webb	ECT Clinic Manager Lead Consultant Psychiatrist for ECT Consultant Psychiatrist for ECT Lead ECT Consultant Anaesthetist Mental Capacity Act Manager Mental Health Act Manager
<p style="text-align: center;"><u>Disclaimer</u></p> <p style="text-align: center;">If the review date of this document has passed please ensure that the version you are using is the most up to date either by contacting the document author or the Governance Directorate.</p>	

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	3 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

Summary of reviews/amendments			
Version Number	Date of Review Approved	Date Published	Summary of Amendments
2	17/10/2019	22/11/2019	

What is consent?

The Welsh Government's [Guide to Consent for Examination or Treatment](#) states, on page 8, para 20:

For consent to be valid, it must be given voluntarily by an appropriately informed person who has the capacity to consent to the intervention in question.

Where an adult patient lacks the mental capacity (either temporarily or permanently) to give or withhold consent for themselves, **no-one else can give consent on their behalf** (unless there is a relevant Lasting Power of Attorney (LPA) or a Court appointed Deputy ([CAD](#)) has been given this authority). However, treatment may be given if it is in their best interests (NB. This is not the same as a person's medical best interests. The best interests checklist must be used to determine best interests), as long as it has not been refused in advance in a valid and applicable advance decision. For further details on advance decisions see the Welsh Government Guide to Consent for Examination or Treatment, page 23, para 91.

What is the Mental Capacity Act 2005 process?

The MCA sets out the process that must be followed when there is doubt about a service user's ability to consent or refuse ECT –

- Reason to doubt a person's decision-making re. their treatment and care
- Providing support to help them decide
- If that fails, assessing their mental capacity to make the decision in question
- If lacking capacity, checking whether there is an Advance Decision, Attorney or Deputy
- If not, making best interests decision

Information about these 5 steps must be recorded – either on a form or in the service users' notes.

What is mental capacity?

Mental capacity is the ability to make a decision at the time it needs to be made. The statutory test for capacity is, in relation to a specific decision:

- does the person have an impairment or disturbance in the functioning of their mind or brain?
- if yes, can the person:
 - understand the information about the decision?
 - retain that information?
 - use or weigh the information to make the decision?
 - communicate their decision?

If the person cannot do at least one of these things, they will lack capacity to make the decision for themselves. Decide on the balance of probabilities.

What is best interests?

To determine a person's best interests the following must be considered/undertaken:

- taking into account all the relevant circumstances; the service user's past and present wishes and feelings about the treatment; the service user's beliefs

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	5 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

and values; and any other factors that the service user would consider if they still could make the decision for themselves.

- consulting with people who care for the service user or have an interest in their welfare (e.g. family members, friends, etc) about what the service user would want.
- instructing IMCA if there is no-one who can be consulted about the service user's best interests.
- recording the best interests decision made; what issues have been taken into account; who has been consulted; and the reason why the decision has been made as it has.

When can ECT be given?

In general, ECT can only be given if:

- the service user has capacity to consent and does consent (where they are detained or informal).
- the service user lacks capacity to consent and a best interests decision to administer ECT has been made if the service user is informal.
- authorised by a second opinion appointed doctor (SOAD) (if the service user is detained under the MHA 1983).
- the service user is under 18 and authorisation has been given by a SOAD, as this is always required whether the young person is detained or informal.
- The service user is detained and requires urgent treatment under s.62 MHA 1983 while waiting for a SOAD.

ECT cannot be given to a service user who:

- has capacity and who refuses treatment (except if he/she is detained under MHA 1983 and needs urgent treatment under s.62 MHA 1983).
- if they now lack capacity, has made a valid and applicable advance decision, unless the service user is detained under the MHA and their circumstances mean that it is appropriate for ECT to be given under s.62 MHA 1983.
- has made a Lasting Power of Attorney granting power to the attorney to determine whether or not ECT should be administered, and the attorney refuses ECT.
- has a Court Appointed Deputy (CAD) who has authority to consent to or decline ECT and refuses ECT.

Circumstances when ECT can be given and the documentation required

Circumstances	Documentation required
Service user is 18 yo and over, informal and consenting	Consent Form 1 completed
Service user is 18 yo and over, informal, compliant, lacks capacity to consent and ECT has been determined to be in best interests	Consent Form 4 completed
Service user is 18 yo and over, detained under a relevant section of MHA, has	Consent Form 1 completed and ECT is certified by AC in charge of treatment

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	6 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

capacity to consent and does consent	on form C04
Service user is 18 yo and over, detained under relevant section of MHA and lacks capacity	ECT certified by SOAD on form C06
Service is user under 18 yo, detained under relevant section of the MHA or informal	Lacks capacity – ECT certified by SOAD on form C06 With capacity – ECT certified by SOAD on form C05
Service user of any age, detained under a relevant section and requires urgent treatment	ECT certified by AC in charge of treatment on C&V Section 62 form

Consent/certification/best interests for ECT treatment

Detention under the Mental Health Act does not itself imply inability to give consent, meaning that detained patients who have the capacity to consent may not be given ECT unless they do in fact consent. The only exception to this is under section 62 of the MHA, which is dealt with in part 1.2 of this document below.

Approved clinicians (ACs) in charge of treatment must always act in accordance with the Mental Health Act 1983. The MHA Code of Practice for Wales, revised 2016; the Mental Capacity Act 2005 and its Code of Practice.

Overall responsibilities for ensuring that ECT can be given lie with the ECT team provided that:

- valid consent has been obtained for the administration of ECT treatment and has been certified.
- the administration of ECT has been determined to be in the service user's best interests, where the service user lacks capacity and there is no Advanced Decision to Refuse Treatment (ADRT), LPA or CAD in place.

THE ECT TEAM RETAINS THE RIGHT TO REFUSE TREATMENT WHERE IT IS FELT TO BE NOT APPROPRIATE/LAWFUL

For informal service users with capacity to consent to ECT

For all patients who are able to consent, then the obtaining of consent should be undertaken in accordance with the UHB's [Consent Policy](#) and the Welsh Government's [Guide to Consent for Examination or Treatment](#)

The consultant psychiatrist is required to make an entry in the service user's medical notes regarding consent and the ECT treatment plan.

When does consent become invalid?

The ECT Clinic works to the following set of standards regarding the validity of consent. Consent becomes invalid when:

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	7 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

- a) the patient withdraws consent.
- b) there is a gap of at least 120 calendar days between treatments.
- c) there is a gap of at least 120 calendar days between the service user signing the consent form and the actual commencement of ECT treatment.
- d) there is a gap of at least 6 months between the SOAD signing form CO6 and the actual commencement of ECT treatment.

Where the patient has capacity to give consent, then they should be asked before each administration of ECT whether or not they are still consenting for ECT. Confirmation of consent should then be recorded in the patient's notes.

An anaesthetic assessment will be carried out prior to the commencement of a

course of ECT and the anaesthetist will explain the procedure and risks and seek consent for anaesthesia if the patient has the capacity to give it. Where higher risk for anaesthesia and ECT are highlighted:

- MDT discussion involving the patient, ECT team and referring team will take place.
- where the patient has capacity the anaesthetist and ECT team will discuss with the patient the risk issues and this must be part of the consent process.
- if the patient lacks capacity a best interests meeting must take place using the best interests meeting agenda and balance sheet.

All patients regardless of capacity to consent to ECT will be provided with two documents: the Hafan y Coed ECT patient information leaflet and the Hafan y Coed ECT clinic 'Your rights about consent to treatment', and these rights will be verbally explained.

In situations where service users need to be reconsented for further treatments after completion of an initial course of ECT, or when changes in capacity have taken place, ECT consultants will obtain consent so a treatment plan is not interrupted.

For detained service users with capacity to consent to ECT

Consent will be sought by the AC in the same way as above, and the MHA 1983 form CO4 will be completed before ECT is given.

For informal service users who lack capacity to consent to ECT

For compliant, informal, patients who lack capacity the Mental Capacity Act 2005 must be followed as described above. In cases where service users lack capacity and object to being given ECT, assessment under the MHA must be considered.

As capacity is changeable, the service user needs to be assessed before each ECT treatment to ascertain whether they have regained capacity. If capacity has been regained, the service user's consent would then need to be obtained before proceeding with the ECT. If the service user refuses ECT, then it cannot be given.

In situations where capacity fluctuates, and consent has been obtained during a period of capacity then this should be used when the patient presents without

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	8 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

capacity. The UHB's consent form 4 and best interests under the MCA may be used at times that the patient lacks capacity so that there is not an interruption to the ECT course. This must be discussed with the patient when they have capacity to establish that they wish ECT treatment to continue on the days that they do not have the capacity to continue to consent.

For detained service users who lack capacity to consent to ECT

The AC needs to request a SOAD assessment to determine whether the service user can be given ECT in the absence of having the capacity to consent. Treatment with ECT can only then proceed if the SOAD approves the treatment plan by completing a CO6 form, which gives legal authority to administer ECT. As capacity is changeable the service user needs to be assessed before each ECT treatment to ascertain whether they have regained capacity. If capacity has been regained the service user's consent would then need to be obtained before proceeding with the ECT. As the AC would be the most appropriate person to gain the service user's consent, and would need to complete form CO4, then ECT treatment on that day would probably not be possible.

NB. If the ECT clinic staff are unclear about, or have reason to doubt, the patient's capacity, they are under a duty to undertake a capacity assessment. If their findings do not accord with the capacity status stated on the prescribed form, then ECT cannot be given.

Urgent treatment under the Mental Health Act (1983)

Section 62 allows for ECT to be given only if:

- The treatment is immediately necessary to save the patient's life.
- The treatment prevents a serious deterioration of the patient's condition, and does not have unfavourable physical or psychological consequences which cannot be reversed.

Any decision to treat a service user urgently under Section 62 is the responsibility of the service user's AC in charge of treatment who should bear in mind the following considerations:

- a) Treatment can only be given where it is immediately necessary to achieve one of the objects set out in Section 62 and it is not possible to comply with the safeguards of Part IV of the Act. It is insufficient for the proposed treatment to be simply 'necessary' or 'beneficial'.
- b) In certain circumstances 'hazardous' or 'irreversible' treatment cannot be administered under this section even if it is immediately necessary. The service user's AC is responsible for deciding whether treatment falls into either of these categories, having regard to mainstream medical opinion.
- c) Urgent treatment given under Section 62 can only continue for as long as is immediately necessary to achieve the statutory objective(s).
- d) Before deciding to give treatment under Section 62 the service user's AC should wherever possible discuss the proposed urgent treatment with others involved with the service user's care.

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	9 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

- e) For any changes in capacity when patients are being treated under section 62 every effort should be made for the capacity assessment to be made by an ECT consultant or a member of the referring team.
- f) The requirement of section 62 is not one of mere necessity; the treatment must be immediately necessary, and the immediacy refers to the treatment not to the consequences if the treatment was not provided.

It is essential that ACs have a clear understanding of the circumstances when Section 62 applies.

For any changes in capacity when patients are being treated under Section 62 every effort should be made for the capacity assessment to be made by an ECT consultant or a member of the referring team. This should be considered where patients present on the day of treatment and have regained capacity, are consenting, but it is impractical to obtain a C04. All effort should be made to contact the AC and for a senior clinician to make the decision about capacity and whether to treat.

The Hospital Managers should ensure that a form is completed by the service user's AC every time urgent treatment is given under Section 62. It is the responsibility of the referring team to ensure that review of the patient is carried out regularly and prior to each planned treatment if a plan for subsequent treatments under Section 62 is being made, particularly being mindful of reviews at weekends. It is not enough for patients who are deemed to be in need of treatment 'immediately necessary to save the patient's life' or to 'prevent a serious deterioration of the patient's condition' not to have been reviewed for several days including over weekends. Provision should be made for cover and reviews to take place.

Responsibility for the administration of ECT

Cardiff and Vale UHB operates a designated ECT clinic, staffed by a multidisciplinary team consisting of a clinic manager and other nursing and support staff, a lead consultant psychiatrist, a consultant psychiatrist with special responsibility for ECT, a lead consultant anaesthetist, a lead operating department practitioner (ODP). On a clinic-by-clinic basis junior doctors and psychiatrists trained in the administration of ECT, consultant anaesthetists, ODPs and recovery practitioners provide a service on a sessional basis. The clinic operates in accordance with national standards maintained by ECTAS. All equipment in this clinic also meets these standards.

The ECT clinic at Hafan Y Coed is on the site of the University Hospital Llandough (UHL) and is included in the resuscitation team response. Therefore, only patients who are extremely physically vulnerable will be considered for treatment in the UHL theatres (in the first instance) or in the University Hospital Wales (UHW) theatres if theatre time is not available at UHL. On these rare occasions treatment will be given by ECT clinic nursing staff and a trained psychiatrist, junior doctor or nurse who has completed the nurse administered ECT competencies using ECT equipment of the same standard as available in the ECT clinic. The lead anaesthetist in agreement with the anaesthetic team who attend the ECT clinic will review the patient and make the decision if or when treatment is to be undertaken in the ECT clinic.

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	10 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

The ECT clinic receives referrals for the administration of ECT to Cardiff and Vale Health Board hospital inpatients and to UHB patients receiving treatment on an outpatient basis. The clinic is open for four mornings each week (Monday, Tuesday, Thursday and Friday) and operating clinic times are 8.30am to 12.00pm. ECT nursing staff are available in the clinic from 7.30am to 3.30pm for referring teams to contact.

The ECT clinic is able to offer an ECT package of care and treatment to other organisations on a privately funded basis for patients under the care of either a private psychiatrist or from a non-NHS inpatient facility. All referrals will be considered on an individual basis and must be accepted by the ECT consultant. Costings of this service will be agreed with the UHB's finance department and reviewed regularly. All funding agreements will be in place prior to treatment commencing. The clinic manager will liaise with the finance department for appropriate invoicing to take place at regular intervals throughout the treatment plan. All clinic standards and processes will apply for the treatment of patients from both NHS and other organisations.

Referrals and preparation for ECT and the one stop shop approach

Referrals for ECT will be made by the prescribing team to ECT clinic staff. Referrals should be made immediately after the decision to offer treatment has been made. Referrals can be made by phone or email and the ECT documentation will then be provided by the ECT team for completion by the referring team if the patient is an inpatient. If the patient is an outpatient, then the ECT team will arrange with the patient to attend the ECT clinic for all pre-work up to be completed by the ECT team. An assessment of the risk/benefit balance of having ECT is considered and recorded. This is to allow enough time for the following steps to take place and be checked by clinic staff:

- Valid consent to be obtained by the referring team for the administration of ECT.
- Appropriate physical health assessment to take place, including an anaesthetic assessment by a consultant anaesthetist.
- Appropriate assessment of mental health and cognition.
- Legal documents to be completed and checked.
- Practical arrangements to be made by the referring team, details of which are contained in separate ECT clinic protocols addressing the organisation of care for inpatients having ECT and care for outpatients having ECT.
- ECT clinic nursing staff to meet with patients and relatives to explain treatment, procedures and answer queries and allay anxieties.

For all outpatients the ECT clinic team will arrange for the patient to attend the clinic and have all preparation completed in the clinic. This includes the taking of bloods and ECG, physical examination and the provision of an ECT booklet. Referring consultants remain responsible for consent.

For all inpatients, if practical to do so the above preparation can be completed on the ward but where this is difficult the referring team can contact the ECT clinic team and

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	11 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

request this is completed in the clinic. Again, consent remains the responsibility of the referring consultant.

For all patients requiring further acute courses, continuation or maintenance ECT subsequent taking of bloods and ECG, physical examination and the provision of ECT booklets will be completed by the ECT team and consent again will be obtained by the referring team or the ECT consultants.

Where ECT is prescribed outside of NICE Guidelines or when specialist advice is appropriate the referring team can arrange to discuss the patient with the ECT consultants and request a second opinion from them if required.

For all privately funded patients the ECT clinic will, as with outpatients, support the preparation of the patient and complete all pre-ECT assessments and investigations. Electronic notes will be established and frequent liaison with the referring team will be initiated and maintained throughout. The ECT clinic, as with the one stop shop approach, will carry out reviews and assessments throughout as with all NHS patients. Clinic decisions continue to be based on clinical need.

The ECT team will organise a full cognitive assessment prior to the start of a course of ECT. Further assessments will take place during, immediately following, and at 2-3 months from the completion of a course of ECT. This will be carried out by the ECT nursing team and the results reviewed by Lead ECT Consultant psychiatrist based at the Academic Department of Psychological Medicine at Cardiff University.

Prior to ECT commencing the service user will be assessed using the Hamilton Depression Rating Scale (HAM-D), or where appropriate the Brief Psychiatric Rating Scale (BPRS). Each patient will be reviewed following each ECT, with an ECT outcome form being completed. A HAM-D or BPRS will be completed following the first two treatments, and then every week throughout an acute course. Continuation and maintenance patients will be reviewed using HAM-D or BPRS prior to each treatment. These assessments will be completed by the ECT nursing team or ECT medical team. The administering doctor or ECT consultant will review the assessments above and prescribe the next one or two ECT treatments. The ECT team will complete cognitive assessments yearly on maintenance patients.

ECT administration

For ECT to be administered in the clinic treatment room the following staff must be present: a consultant anaesthetist; a suitably trained psychiatrist, or a suitably trained junior doctor or a registered nurse who has completed the competencies for nurse administered ECT; an operating department practitioner; a suitably trained registered nurse to assist the administering practitioner; and a suitably trained recovery practitioner who is available in the recovery area.

ECT is only administered by:

- Psychiatrists who meet the RCPsych competencies for doctors;
- Doctors under the direct supervision of the named lead consultant or appropriately trained deputy;

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	12 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

- Nurses who meet all the requirements in the ECT accreditation service (ECTAS) standards for nurse administered ECT. Documentation for nurse administered ECT competence will be kept and maintained in the ECT clinic.
- Junior doctors administering ECT on the ECT rota will first receive induction training on ECT, attend ECT sessions to observe ECT before performing ECT directly supervised by one of the ECT consultant psychiatrists. Junior doctors will only provide ECT unsupervised by the ECT consultants when signed off as competent to administer ECT. Documentation of competence will be kept in the ECT clinic.

The dose of ECT administered to each anaesthetised patient is decided with regard to the clinic's dosing protocol, or as advised by a senior psychiatrist with a special interest in ECT. In accordance with the clinic's protocol on laterality, the decision on unilateral or bilateral treatment is taken by the referring team and/or the ECT consultant, if necessary, in consultation with one of the clinic's senior psychiatrists, or a senior psychiatrist with a special interest in ECT.

Each service user will receive care according to the guidance contained in accompanying documents, including the ECT clinic anaesthetic protocol, and will be monitored using a two lead EEG.

Cancellation of an ECT session will only occur in exceptional circumstances or in a situation where one of the above essential personnel cannot be present.

Although the ECT clinic will carry out all necessary reviews and assessments for ECT purposes it remains the responsibility of the referring team to continue to review service users and to liaise with the ECT clinic to discuss and make joint decisions regarding ongoing ECT. The prescription of up to the next two ECT treatments will be made by the referring team or as part of the one stop shop approach by the ECT consultant or deputy.

Patients will attend the clinic at 8am on days of ECT treatment to allow time for assessments and reviews prior to treatment taking place. Later arrivals will be accepted at the discretion of the ECT nurse managing the patient flow for the clinic in advance of the treatment day. All arrivals from units providing secure mental health care will be via the HYC discreet entrance and if required quiet individual waiting will be provided.

For all medical or surgical inpatients attending from UHL or UHW, if required by ambulance transfer, arrival times will be arranged in liaison with the ECT team. Patients will arrive through the main HYC entrance and if transfer is via stretcher will be taken directly into the recovery room and the accompanying nurse, recovery practitioner or ECT nurse will provide appropriate care prior to ECT treatment. It will be at the discretion of the nurse in charge when planning treatment (in liaison with the medical team and in recognition of the patient's individual medical needs) if the patient must be accompanied by a qualified nurse to the ECT clinic, during the ECT treatment, and for transfer back to the medical inpatient unit.

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	13 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

Nurse administered ECT

The plan to introduce nurse-administered ECT in Hafan Y Coed was decided by the ECT multidisciplinary team, the clinic manager, and the UHB Mental Health Clinical Board.

The fourteenth edition of the ECTAS standards (2018) or subsequent updates includes specific standards for nurses and clinics wanting to practice nurse-administered ECT and these will be followed.

There will be sufficient nursing staff with appropriate skills on duty to facilitate nurse administered ECT and an ECT consultant will be available for advice.

Recovery from ECT

In accordance with the clinic's recovery nursing care plan, following treatment each service user is transferred to the treatment room's adjoining recovery area where s/he is monitored by a recovery practitioner from the UHL recovery suite. Each recovery practitioner has responsibility to ensure the service user's safe recovery from anaesthesia and from ECT administration. Following recovery, each service user spends time in an adjoining post-recovery room where refreshments are available. The recovery practitioner and/or the ECT clinic nursing staff continue to have responsibility for care until the patient is discharged from the ECT Clinic. For further information, please see also the attached ECT day patient procedural guidance and discharge criteria and the anaesthetic guidance.

Accompanying staff

All patients who attend the clinic for ECT treatment, including outpatients, must be accompanied by a suitably trained member of staff. The accompanying member of staff will remain with the patient throughout their ECT journey and accompany them safely back to the ward if they are inpatient and to the care of a responsible adult if they are an outpatient.

In the case of some patients, as part of a prescribed level of observations that involves more than one member of staff then the team of staff will accompany the patient as prescribed and support the patient and ECT staff in accordance with any risk management plans. However, once the patient is unconscious in the treatment room the accompanying staff may leave the patient in the care of the ECT treatment nurse and meet the patient as they enter recovery. This will be at the discretion of the nurse in charge of ECT, considering patient dignity, safety, numbers of staff, size of the room, and the training in and knowledge of ECT of accompanying staff.

All patients will be assessed using the ECT discharge criteria by a qualified recovery practitioner or ECT nurse prior to discharge from the ECT clinic. Most patients will not be fit for discharge or to return to wards before an hour post-ECT treatment. The length of stay is determined by the recovery practitioner, ECT nurse or doctor involved in ECT care.

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	14 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

Working age adult outpatients will be cared for by staff from the ECT clinic until they are fit for discharge, and will then be transferred to the care of a responsible adult at the ECT clinic or at their home or other community residence. Mental health services for older people (MHSOP) outpatients will be accompanied by a member of staff from the MHSOP community team or day hospital.

Family and friends are welcomed in the ECT clinic with the consent of the patient to be part of the patient's journey. They can stay with the patient in the pre-waiting area and wait in the clinic waiting room during the treatment and initial recovery phase. They can then join their relative or friend in the post-recovery waiting area as they continue to recover and prepare for discharge from the clinic. Family and friends can provide support and comfort to patients, and with patient consent can be included as partners in the provision of care. In some circumstances, and at the discretion of the nurse in charge, a family member or a friend may stay with the patient in the treatment room just prior to administration of anaesthesia to be supportive.

Discharge from the ECT clinic

As per the clinic's procedural guidance on the treatment and care of day patients, patients may return home no sooner than one hour after ECT administration (longer if necessary) and will meet the ECT clinic discharge criteria. If the patient needs an extended recovery period as decided by the ECT clinic nurse or recovery practitioner, then the patient will remain in the ECT clinic for an extended period or be transferred to an inpatient ward or to another appropriate service until they are fit for discharge home.

The assessment and decision to discharge from the ECT clinic will be the responsibility of a recovery practitioner or qualified nurse in ECT. The patient will not leave the ECT clinic without the permission of the qualified nurse/recovery practitioner in charge of their care. If the recovery practitioner has concerns over the mental state of the patient, they will seek advice from a qualified nurse from the ECT team. The ECT clinic nurse will assess the patient and discharge the patient where appropriate, or seek psychiatric review from the junior doctor covering ECT, the ECT consultant or from the crisis team as appropriate.

They and their responsible adult will have signed the day patient discharge form contained in the ECT record and will confirm that they will not drive during an acute course of ECT or for 48 hours after ECT when receiving continuation or maintenance treatments. They will not operate machinery or have sole responsibility for children for 24 hours. They will not sign legal documentations or drink alcohol for 24 hours after each treatment or until advised by their consultant psychiatrist.

They will be collected from the ECT clinic by a responsible adult who will accompany them home and they will stay in the presence of a responsible adult for 24 hours following treatment. Where no arrangements are in place for collection by a responsible adult or for admission to a bed in hospital, then attempts should be made to arrange a bed in the crisis house or other community setting: otherwise, treatment will be cancelled. Where it is not possible for the patient to be collected it is the responsibility of the ECT team to make arrangements to accompany the patient to their nominated responsible adult.

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	15 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

Where this is not possible for the patient to be collected it is the responsibility of the ECT team to make arrangements to escort the patient to their nominated responsible adult.

At the discretion of the ECT clinic manager, outpatients who cannot be collected by their responsible adult at the time they meet the discharge criteria may remain in the care of the ECT team in the ECT clinic or other appropriate care setting until responsibility for their care is passed to the patient's responsible adult. This must be arranged on an individual patient basis or on individual treatment days with the ECT clinic manager.

For patients being treated from the psychiatric intensive care unit (PICU), as part of an ECT risk management plan patients may need to be transferred back to PICU after the initial recovery stage and when physiologically stable with the ongoing monitoring and care taking place in the PICU environment.

The administration of ECT to particular groups

The ECT clinic team, led by the lead consultant psychiatrist and clinic manager, will maintain and update as necessary additional guidance on the administration of ECT to older people and people younger than 18 years of age.

Resources

The ECT clinic will continue to maintain a budget specific for the ECT clinic, which includes a budget for staff training so that clinical and staffing resources are met and are in line with national standards.

Training

All new qualified members of nursing staff or health care support workers (HCSWs) in the clinic undergo an agreed induction/training package to be completed in conjunction with the UHB's in-service training department. The qualified nurses will also work towards achieving specialist ECT competencies which will include attending national training course approved by the RCPsych, ECTAS, and NALNECT. All qualified nurses in the clinic are required to attend ILS training annually. All nursing staff are encouraged to attend courses which are appropriate to their personal/professional development. HCSWs will work towards achieving competencies to a level appropriate to their grade in ECT.

Medical staff will receive induction and training in ECT administration under the supervision of the consultant psychiatrist. Junior doctors on the ECT rota will be assessed and confirmed as competent prior to administering ECT without direct supervision of a more experienced practitioner. On treatment days the junior doctor on the ECT rota will remain on the premises of HYC until all patients are discharged from the ECT clinic. In the situation where nurse administered ECT has taken place the junior doctor available for Cedar ward will be contactable if required for urgent medical review after the consultant anaesthetist has left, in addition to an ECT consultant being available for advice.

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	16 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

Annual updates for referring consultants and other psychiatrists will be provided.

Both formal and informal teaching is given to all professional disciplines, prior to the observation of ECT. This is a necessary requirement to provide a high standard of care for patients receiving ECT and ensures the overall knowledge of ECT care is increased amongst staff working in mental health services.

The ECT team is happy to provide bespoke teaching to groups in and out of the UHB and actively seeks opportunities to bring posters, and deliver concurrent sessions, at specialist ECT conferences/forums or other appropriate conferences.

ECT clinic

Visits to the clinic

Visits to the clinic are by appointment only. The clinic manager reserves the right to refuse visits to non-medical/nursing and paramedical staff.

Security

The clinic nursing staff will take responsibility for ensuring patient notes are locked away at the end each day. The ECT clinic has restricted access, with routine access for all shift coordinators, ECT team members, regular HYC staff who undertake bank shifts in ECT, estates and housekeeping. All others are at the discretion of the clinic manager.

Maintenance of equipment and ECT clinic

ECT machines have an annual service from the manufacturing company and all other clinic equipment is maintained by the UHB's clinical engineering department. As per national standards it is the responsibility of clinic staff, prior to each ECT session, to check and prepare all equipment.

Audit

The clinic is externally audited by ECTAS and will continue to be a member ensuring standards are maintained. Staff will actively participate in audit and the review process. The ECT clinic is linked with a research consultant at Cardiff University who provides statistical analysis of the response and remission rates of patients, cognitive performance of patients and long-term outcome. The ECT clinic staff will keep a record of treatments and other statistical data that allows for the monitoring of variables such as age, gender and MHA status. The ECT clinic team will lead and participate in appropriate audit and research opportunities as these arise.

Distribution

Via the UHB intranet site and Directorate office.

Appendices

1. GUIDELINES FOR CONTINUATION OF ECT IN CARDIFF ECT CLINIC

Relapse after ECT is common. According to the literature at least 50% of patients who recover completely after ECT, will relapse in the first 6-12 months thereafter. This rate is particularly high in the first 3 months. Our own data from Cardiff on 73 patients, who either remitted or responded to ECT, show 50% relapse in the first three months and 59% after 12 months.

Continuation ECT (c-ECT) refers to treatments spaced at increasing intervals of one week to one month, administered after a successful course (Andrade and Kurinji, 2002). It is prescribed to reduce the risk of relapse of the current episode of illness. Very few studies have so far tested the effect of continuation ECT. The NICE guidelines stated that there was not enough evidence to support a recommendation for use of continuation ECT. However, the guidelines also called for research into continuation ECT. A meta-analysis of continuation and maintenance ECT (Petrides et al, 2011) showed an almost universal beneficial effect from such additional ECTs and the largest controlled study to-date (Nordenskjold et al, J ECT, 2013) showed that patients who received c-ECT every two weeks for one year had half the relapse rate of those who received only pharmacotherapy. Similar results were obtained in the PRIDE study of geriatric depression (McCall et al J Psych Res 2018.)

Continuation ECT should not be routinely prescribed. However, a patient who has shown evidence of early relapse after previous successful courses of ECT or has had very prolonged and treatment-resistant course of illness, should, in our view, be offered continuation ECT during a new course of treatment, as such patients have an even greater risk of relapsing again.

We suggest that continuation ECT should have the following format:
Continuation ECT is started after the patient has achieved remission (defined as <10 points on the Hamilton Depression Rating Scale on two successive occasions) and there is consensus between patient, carer and treatment team that the patient is well.

After this point the patient should be offered 8 further ECT sessions spaced in the following format:

- 2 ECTs at weekly intervals
- 2 ECTs at 2-weekly intervals
- 2 ECTs at 3-weekly intervals
- 2 ECTs at 4 weekly intervals

This should be regarded as a flexible set of ECT sessions. Patients should be reviewed after every Continuation ECT and if they are found to be deteriorating, they should be offered more frequent ECTs. Alternatively, if the patient is very well, the session can be delayed.

Reviewed June 2019

2. PROTOCOL FOR MAINTENANCE ECT

If a patient has received continuation ECT they may be considered for maintenance ECT if they have relapsed in the past after ceasing continuation ECT.

The frequency of treatment would be dependent on individual patient circumstances and attempts to reduce the frequency of ECT to a minimum would be made.

The ECT clinic will liaise closely with the treating teams and be involved in meetings as discussions regarding ECT changes as much as possible.

Reviewed November 2018

3. PROTOCOL FOR THE DISCONTINUATION OF ECT

Overview

The following factors will be taken into account when discontinuing ECT treatment:

- Withdrawal of consent
- Efficacy
- Adverse reaction, including cognitive side effects
- Physical safety and anaesthetic risk
- Consideration of continuation and maintenance ECT

A set course of treatments should not be prescribed – the need for further treatments should be assessed after each individual treatment.

For patients with complex risk issues a joint MDT meeting with the ECT team and referring team will be arranged. On the day of treatment the decision to treat or not to treat remains with the ECT team.

Reviewed November 2018

4. PROTOCOL FOR THE LATERALITY OF TREATMENT

Bilateral ECT is the treatment of choice in Cardiff (since Aug 2010) due to its apparent superior clinical efficacy and similar side effect profile to Right Unilateral (RUL) ECT as shown in local follow up of patients and recent published research from the USA (Kellner et al British Journal Psychiatry (2010) 196. 226-234).

- Unilateral electrode placement will be preferred:
 - Where the index episode of illness or an earlier episode of illness has shown good improvement with unilateral ECT.
 - Where cognitive side effects have occurred in the past with bilateral ECT
 - If a patient expressed a preference for RUL ECT
 - If severe confusion or complaints of memory problems occur during BL ECT

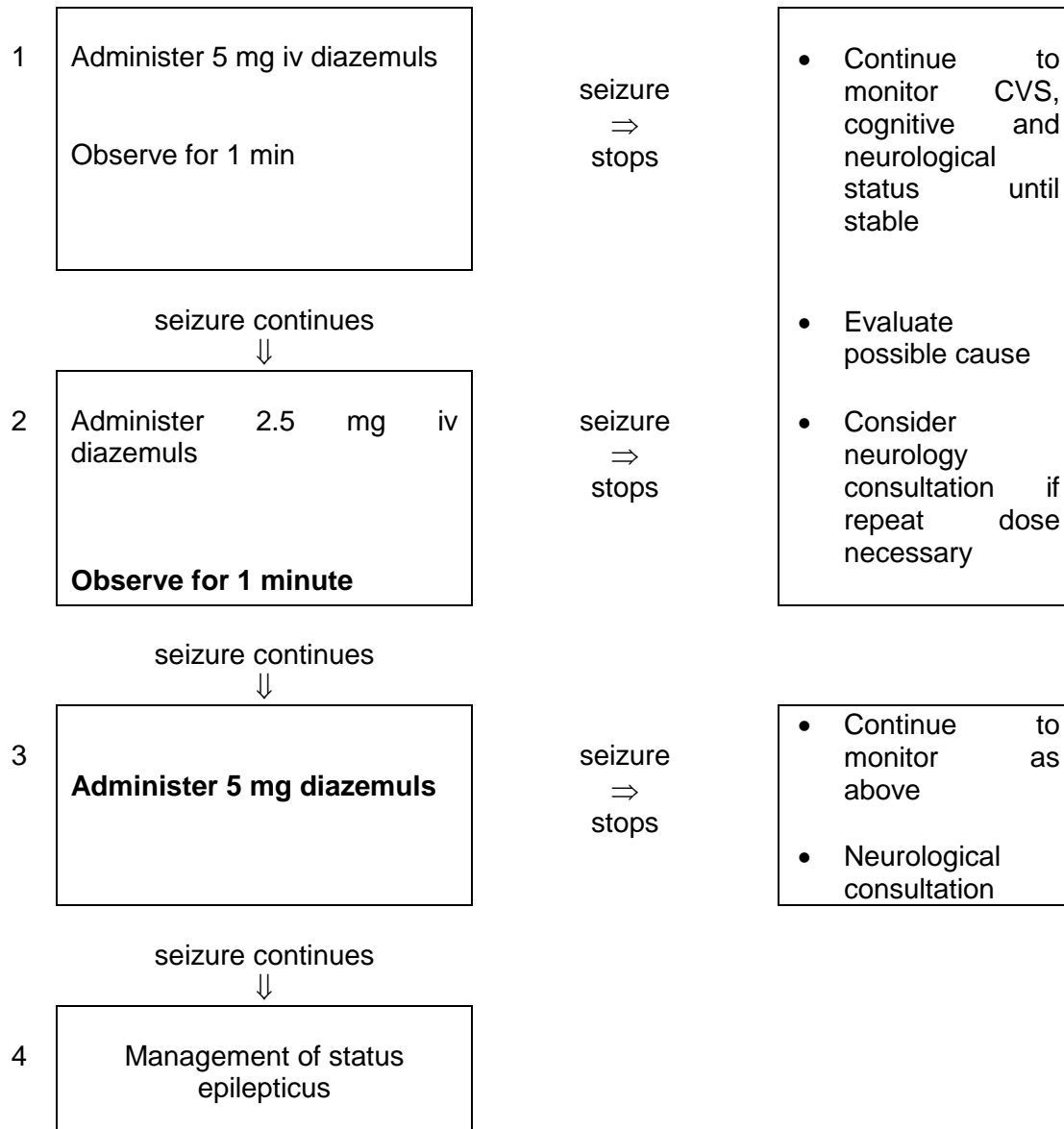
If severe confusion occurs after RUL ECT indicating that the right hemisphere may be dominant, an empirical trial may be carried out where the time to recover orientation is compared between right and left sided treatment given at consecutive treatment sessions under standard conditions. Alternatively, the treatment may be continued as bilateral.

Reviewed November 2018

5. MANAGEMENT OF PROLONGED SEIZURE DURING ECT

Seizure activity >2 minutes

- Begin following protocol
- Continue ventilation throughout treatment
- Monitor vital signs
- Provide additional Suxamethonium for muscle relaxation as necessary



Reviewed November 2018

MANAGEMENT OF PROLONGED SEIZURE

Definition:

Prolonged seizure is defined as bilateral or unilateral seizure activity, detected clinically or on EEG monitoring, lasting longer than two minutes

Effects:

Prolonged seizures may be associated with increased confusion and mental impairment and should be terminated.

It is important to note that a prolonged seizure may be overlooked, with serious consequences, if EEG monitoring is terminated too quickly towards the end of the procedure. Prolonged seizure may not be apparent clinically, and research evidence suggests that a significant proportion of cases would be missed if clinical observation alone was relied upon.

Acute management:

Prolonged seizure will be treated promptly by administration of appropriate dosages of either intravenous Diazemuls or additional dose of induction agent. The amount administered should be recorded by the anaesthetist

The patient's airway should be protected and regular pulse and blood pressure monitoring carried out.

Blood glucose estimation should be done immediately to rule out hypoglycaemia.

The event should be clearly documented in the patient's ECT record, clinical notes, and communicated to staff or carers supervising the patient after treatment.

Further Management

After a prolonged seizure has taken place, the psychiatrist responsible for ECT should, in collaboration with the patient's RC, review the possible causes and take any appropriate action. If there is no other apparent cause and it is decided that the course of ECT should proceed, then the dose of electricity should be reduced accordingly for subsequent treatments by the Consultant responsible for ECT.

If despite appropriate action, a further prolonged seizure occurs, then a similar review should again be carried out, and termination of the course of ECT be considered.

The possible causes to be considered include:

- ♦ Wide variation in the dose of Anaesthetic given
- ♦ Recent change in the patient's regular drug regimen (e.g. withdrawal of benzodiazepines or anticonvulsants)
- ♦ Error in dose of ECT administered
- ♦ Hypoglycemia.
- ♦ Other metabolic or intracranial disorder.

Reviewed November 2018

6. STIMULUS DOSING PROTOCOL FOR ECT

The purpose of Electro Convulsive Therapy (ECT) is to stimulate the brain electrically in order to produce clinical improvement. The induction of a generalised bilateral seizure is thought to be required but not sufficient. To be clinically effective the stimulus needs to be at a dose sufficiently above seizure threshold (suprathreshold). Cognitive side effects of ECT are thought to be directly related to increasing doses of electricity.

'The aim of ECT is to induce generalised cerebral seizure activity of a type that is associated with a tonic-clonic or grand mal convulsion, and to do so with an electrical dose which is sufficiently suprathreshold to maximise the clinical efficacy of treatment, but not so high that it needlessly contributes to the cognitive side effects of treatment.' The ECT Handbook 2nd Edition RCPsych

ECT can be given bilaterally (BL) or unilaterally on the non-dominant (right) hemisphere (RUL). Bilateral ECT is the treatment of choice in Cardiff since August 2010 due to the superior efficacy. RUL ECT may be used in certain circumstances – see laterality policy for details.

FINDING THE SEIZURE THRESHOLD (ST)

This is achieved by starting at a low dose and giving increasing doses of electricity until a fit is induced. Some factors e.g. age and prescribed medication are known to alter seizure threshold and there are some variations therefore in starting doses.

Up to 3 stimulations can be given at one treatment session, **but never more than one generalised seizure should be induced**

Because of the different treatment doses there are separate protocols for BL and RUL treatment.

BL dose titration schedule

If under 30yrs and no anticonvulsants or benzodiazepines:

BL session 1	Seizure	No seizure
Stim#1 46.2mC	Do not re-stimulate and calculate treatment dose for next session (103.8mC)	Go to stim#2
Stim#2 80.5mC	Do not re-stimulate and calculate treatment dose for next session (161.3mC)	Go to stim#3
Stim#3 126.5mC	Treatment dose for next session (253.0mC)	Discuss with senior ECT doctor

If under 30yrs on anticonvulsants or benzodiazepines or if between 30 – 70yrs:

BL session 1	Seizure	No seizure
Stim#1 80.5mC	Do not re-stimulate and calculate treatment dose for next session (161.3mC) If the seizure was very good, use 126.5mC for treatment dose.	Go to stim#2
Stim#2 126.5mC	Do not re-stimulate and calculate treatment dose for next session (253.0mC)	Go to stim#3
Stim#3 184.1mC	Treatment dose for next session (368.4mC)	Discuss with senior ECT doctor

If over 70yrs (regardless of medication regime) or >50 years and on anticonvulsant or benzodiazepines:

BL session 1	Seizure	No seizure
Stim#1 126.5mC	Do not re-stimulate and calculate treatment dose for next session (253.0mC) If the seizure was very good use 184.1mc for treatment dose.	Go to stim#2
Stim#2 184.1mC	Do not re-stimulate and calculate treatment dose for next session (368.4mC)	Go to stim#3
Stim#3 276.0mC	Treatment dose for next session (553.0mC)	Discuss with senior ECT doctor

RUL dose titration schedule

RUL session 1	Seizure	No seizure
Stim #1 46.2mC	Do not restimulate and calculate treatment dose for next session (230.4mC)	Go to stim#2
Stim#2 80.5mC	Do not restimulate and calculate treatment dose for next session (403.2mC)	Go to stim#3
Stim#3 126.5mC	Treatment dose for next session (633.8mC)	Discuss with senior ECT doctor (change to Etomidate or bilateral ECT most likely options)

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	25 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

AN ADEQUATE SEIZURE (FIT)

This is defined as:

1. Generalised i.e. bilateral
2. Commencing with a tonic phase (contraction of muscles) which may follow a latent period (immediately following the end of electrical stimulation)
3. Having a clonic phase (rhythmic alternating contraction and relaxation)
4. Good quality EEG i.e. a clearly defined period of high amplitude synchronised waves of 3-5 Hz frequency waves, a clear end point and post ictal suppression.

It is unlikely that any seizure activity below 12s would be able to demonstrate all of the above features

NEVER RESTIMULATE AFTER A SEIZURE HAS BEEN PRODUCED.

MISSED FIT

If no fit is produced, then the patients should be re-stimulated. At least 30 seconds must have elapsed after the end of stimulus delivery before a missed fit is diagnosed.

It is extremely important to try to induce an adequate seizure when a patient has been anaesthetised.

If a missed fit occurs, increase the stimulation dose to the next level according to the table. Up to 3 stimulations can be given in 1 treatment session, but if no fit is elicited after two stimulations (except during titration), then it is better to stop and reconsider the plan for the next time.

If 3 stimulations are given in any 1 treatment session, ward staff should be warned that the patient may have increased cognitive adverse side effects (i.e. confusion) post treatment.

The cause of a missed fit needs to be considered in conjunction with the ECT clinic team and a senior review of the treatment plan should occur.

STIMULUS DOSING DURING A COURSE OF TREATMENT

ECT itself raises the ST, also new drugs may be given to a patient during the course of ECT which raises the ST. If there is a change in the seizure quality or if there is a missed fit then the stimulus dose should be reviewed. After a dose is increased future comparisons should be made with the seizure quality at this new increased dose. An alternative is to change the anaesthetic, so this decision should be discussed with the Consultant in charge of ECT, ASAP.

Lack of clinical improvement is also an indication for increasing the dose of electricity. This decision should be discussed with the Consultant in charge of ECT.

CHANGING FROM BILATERAL TO UNILATERAL OR VICE VERSA DURING A COURSE OF TREATMENT

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	26 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

Bilateral ST is known to be approx 40% higher than unilateral

Changing from unilateral to bilateral ECT is likely to be due to lack of clinical improvement. Also, ECT itself raises ST. Therefore, assume the bilateral ST to be double the unilateral ST and calculate the dose accordingly.

Changing from bilateral to unilateral ECT may be indicated if cognitive impairment becomes problematic. The ST needs to be re established for unilateral ECT as it is likely to be lower and, in this scenario, giving the least electricity needed is of paramount importance. Start titration as for **RUL** session 1. The dose must then be adjusted according to the above table.

PROLONGED SEIZURES

i.e 2 mins or longer from end of stimulation
See separate protocol

WHEN NOT TO USE THE STIMULUS DOSING POLICY

1. Emergency protocol: When a patient is being given ECT as a life saving measure: consult the titration schedule tables and assume that the patient might have fitted at the first stimulation, so start with the corresponding treatment dose.

If under 30 years and no anticonvulsants or benzodiazepines:	Assume ST of 46.2mC	Treat with 103.8mC
If under 30 years and no anticonvulsants or benzodiazepines or if between 30-70 years:	Assume ST of 80mC	Treat with 161.3mC
If over 70 years (regardless of medication) or >50 years and on anticonvulsants or benzodiazepines:	Assume ST of 126.5mC	Treat with 184.1mC

If no fit is produced, continue according to the titration tables (-50% increase for each re-stimulation) If the fit is poor, do not re-stimulate, but for the next session increase the dose by one level according to the Table Bilateral/Unilateral ECT mC increases.

2. When a patient has very recently i.e. within last 6 months, finished a course of ECT, it may not be necessary to recalculate the ST. Therefore, all starting doses of such patients should be individually discussed with senior ECT clinic staff and the rationale for the starting dose be recorded in the case notes.

Table. Bilateral/unilateral ECT mC increases

If poor fit at	Increase to this
----------------	------------------

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	27 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

this dose:	dose:
46.2mC	80.5mC
80.5mC	126.5mC
103.8mC	161.3mC
126.5mC	184.1mC
161.3mC	218.7mC
184.1mC	218.7mC
218.7mC	253.0mC
230.4mC	299.9mC
253.0mC	299.9mC
299.9mC	368.4mC
333.9mC	403.2mC
368.4mC	461.0mC
403.2mC	461.0mC
461.0mC	553.0mC
553.0mC	610.6mC
610.6mC	678.9mC
633.8mC	748.2mC
678.9mC	748.2mC
748.2mC	829.3mC
829.3mC	922.2mC
922.2mC	1001.4mC
1001.4mC	1152.0mC

Reviewed November 2018

7. PROTOCOL FOR USE OF ELECTROCONVULSIVE THERAPY IN PERSONS UNDER 18 YEARS OLD

The NICE Technology Appraisal 59 (April 2003) stated 'The risks associated with ECT may be enhanced ... in children and young people and therefore clinicians should exercise particular caution when considering ECT in this group'.

The use of ECT in children and adolescents remains controversial and there is little evidence base for its use. Due to the possible increase of side effects in this age group careful consideration by review of the latest literature would have to be given to the dosing strategy.

Any use of ECT in persons under 18 would need full consultation between senior ECT staff and prescribers, which would include expert opinion from specialists in adolescent psychiatry.

A separate treatment session or a managed treatment session that does not allow under 18 having contact with adult patients throughout the process would be arranged for anyone under 18 receiving ECT in line with the Health Board child protection policy.

No patient under 18 can be given ECT treatment without a SOAD certificate (even if informal)

Reviewed November 2018

8. PROTOCOL FOR THE ADMINISTRATION OF MEDICATION DURING COURSE OF ELECTROCONVULSIVE THERAPY

All regular medication should be given on the morning of ECT with a sip of water except:

- Anticonvulsant or benzodiazepine medication which can interfere with seizure threshold
- Lithium should be omitted the night before ECT treatment
- For Diabetic patients please see anaesthetic guidance.

ALSO:

- Wherever possible prn Benzodiazepine medication should be omitted the night before ECT and consideration given to lowering the doses or stopping regular benzodiazepines. Non benzodiazepine night sedation should be given as PRN medication if needed.
- In general anticonvulsant drugs will be continued during ECT for their beneficial effects although this should be carefully considered prior to starting ECT. However, as a result of consultation between prescribers and senior ECT staff, it may be necessary to reduce or stop anti-epileptic drugs used as mood stabilisers, if this is thought to be interfering with seizure threshold.
- Robust maintenance antidepressant treatment (possibly combination therapy) should be continued after ECT for at least 6 months usually longer. Consideration should be given to the combined use of antidepressant plus lithium as maintenance following ECT as there is good research evidence for it being most effective in reducing relapse.

Reviewed November 2018

9. PROTOCOL FOR THE ADMINISTRATION OF ANAESTHESIA FOR ECT

The delivery of a safe anaesthetic service in the ECT suite depends upon the provision of appropriately trained staff for both anaesthesia and recovery. These vulnerable patients deserve the best care that complies with national guidelines for anaesthesia.

Anaesthesia for ECT requires that the patient is presented to the anaesthetist having been prepared to the same high standard as would be expected if the patient were to be undergoing a minor procedure as an inpatient.

Physical Assessment

Full clinical history, physical examination and medication history should be documented. Results of laboratory investigations appropriate to the particular patient will be available.

Contraindications to ECT

There are no absolute contraindications; there is a need to balance risk of treatment, against risk of illness.

Severe or unstable medical conditions represent the greatest risk, especially cardiovascular and respiratory illnesses.

Higher risk cases

- Recent myocardial infarction (within 3 months and depending on severity)
- Untreated deep vein thrombosis (until anti-coagulated to reduce risk of PE.)
- Acute respiratory tract infection (especially 1st 72 hours)
- Uncontrolled cardiac failure
- Recent CVA (within 1 month, depending on severity)
- Raised intracranial pressure, untreated cerebral aneurysm
- Unstable major fracture
- Untreated phaeochromocytoma
- Severe Angina

Relative

- Pregnancy
- Thyrotoxicosis
- Glaucoma
- Retinal detachment

The following conditions need assessment and, where possible, stabilisation prior to treatment: all medical conditions, uncontrolled hypertension (systolic > 180mmHg, diastolic >100mmHg), dysrhythmias, any abnormal investigations and dehydration.

Indications for referral for specific anaesthetic assessment:

- ASA Grade III (severe systemic disease)
- ASA Grade IV (severe systemic disease that is a constant threat to life)
- Recent Myocardial infarction (within 6 months)
- Angina
- History of aortic stenosis
- Known severe adverse reaction to previous anaesthetics
- Symptomatic hiatus hernia
- Patients with expected difficult airway management
- Patients with a body mass index (BMI) >35
- Unstable cervical spine

Any patient whose condition or results give cause for concern should be discussed with the anaesthetist well in advance of the proposed ECT treatment to avoid last-minute cancellations.

Only in very exceptional circumstances will patients be treated in Theatres at University Hospital Llandough (UHL) or University Hospital of Wales (UHW) there will be no need to transfer patients to the main theatre as the ECT clinic in Hafan y Coed unit is within the University Hospital of Llandough site and has access to all facilities.

Protocol for maintaining anaesthesia, ventilation and monitoring, in the event that safe and effective transfer to an ambulance or critical care area is needed.

Policies are in place for the transfer of medically ill patients from Hafan y Coed to the Medical Admissions Unit (MAU) and a specialist trolley for in hospital transfer is available for this purpose. Arrangements are also in place to refer to critical care within UHL or for transfer to UHW via ambulance if necessary. The clinic has a transfer monitor within the treatment room and two portable monitors in ECT recovery, two infusion pumps and ventilation equipment to provide a safe and effective transfer while maintaining anaesthesia.

The Consultant anaesthetist and operating department practitioner (ODP) will manage the care of the patient during preparation for transfer and during transfer. Hafan y Coed mental health unit is covered by the UHL emergency resuscitation team for all peri arrests and resuscitation and can be called to provide further specialist anaesthetic staff to assist if necessary.

Within the ECT clinic for patients who require a higher level of care or monitoring in ECT recovery then the consultant anaesthetist and operating theatre practitioner will provide this care until assessed to be fit for handover to ECT recovery nurses.

Investigations for ECT

Standard Investigations

Indications for FBC	Indications for U&E	Indications for ECG
All patients	1)All medically fit patients>60yrs 2)All patients with history of hypertension 3)Renal disease 4)Diabetics 5)Cachectic Patients 6)Patients on following medications: Diuretics, Lithium, MAOIs, Cardiac or vaso-active drugs	1)All medically fit patients>45yrs 2)Patients with known cardiac disease(including IHD, Hypertension, Irregular pulse or heart murmur) 3)Diabetics>40yrs 4)Patients with known respiratory disease

Urine analysis on all patients.

Non-standard investigations:

- Blood glucose levels: Diabetics and if urinalysis positive for sugar.
- Liver Function Tests: Known liver disease, alcoholics, Cachectic patients, drug abuse or recent overdose.
- Thyroid function tests: Known history of thyroid disorder, patients on thyroxine and patients with dysrhythmias (particularly fast AF).
- Hepatitis status for patients known to use intravenous drugs.
- Sickie test: Afro-Caribbean, Eastern Mediterranean, Asian and Middle Eastern patients.
- Chest X-Ray: Patients with suspected chest infection, a known history of severe COPD, cardiac disease including: congestive cardiac failure, pulmonary embolism
- Respiratory Function Tests: Severe COPD or patients with shortness of breath at rest

NB; Investigations need to be repeated within 1 year if the patient's condition remain unchanged

Medication on the morning of ECT

Routine oral medications should be taken by the fasted patient prior to treatment. A small amount of water may be taken to facilitate swallowing of tablets. In particular the administration of necessary medications e.g. anti-hypertensive should be encouraged.

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	33 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

Medication known to affect seizure duration should be discussed with the referring medical team and if required, the Lead ECT Consultant.
If possible omit benzodiazepines in the 24 hours before ECT.

Diabetic patients taking oral hypoglycaemic agents:

- Give normal medication and diet the evening prior to ECT
- Pre ECT fasting as protocol
- Omit normal oral hypoglycaemic agent
- Following ECT, give breakfast plus oral hypoglycaemic agent

Diabetic patient on insulin:

- Give normal insulin and diet the evening prior to ECT
- Pre ECT fasting as protocol
- Omit morning dose of insulin
- Following ECT give breakfast together with normal or slightly reduced dose of Insulin (depending on the size of the meal).

For all diabetic patients check capillary glucose prior to treatment and prior to discharge from the Treatment Centre
Patients with known hiatus hernia or symptomatic gastric reflux disease: The patient should receive their routine (H2 receptor antagonist) on the morning of treatment. If not on current treatment they should be given 20-40 mg of Omeprazole and 10 mg of Metoclopramide orally as premedication.

For all patients on anticoagulant / anticholinesterase drugs; seek the advice of the Anaesthetist prior to the first treatment

Theatre List

Print out of theatre list should be available prior to start of any ECT session.
The following should be documented:

- Patient identification
- Source; inpatient or day case
- MHA status
- Any specific medical problem
- Unilateral or bilateral treatment
- Number of the treatment session
- Referring consultant

A handover (pre-brief) as part of the WHO surgical safety checklist will take place prior to each ECT clinic commencing and this will involve introductions of team members by name and role, a handover of each patient with regard to mental health issues, ECT treatment, pertinent medical and ECT recovery information. Following ECT clinic, the treatment room team will carry out a debrief of the session using the debrief template. Action points from this will be taken forward by the appropriate team member.

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	34 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

Preoperative care

The anaesthetist checks the Anaesthetic, resuscitation and suction equipment and prepares the Anaesthetic agents prior to administration.

A record should be kept of the equipment check and documented prior to each session (this should be signed by the ECT nurse, ODP and / or the Anaesthetist)

When the patient arrives for their first treatment and also before start of a new cycle of ECT; the anaesthetist must examine them. All the documentation and blood results must be checked, especially the electrolytes. The patient should be classified by ASA grading and this should be documented as well as their anaesthetic history and assessment of the airway. The ASA status should be documented if there is any change in the medical condition during the course of treatment.

The patient should be checked in the pre treatment area by the anaesthetic assistant and the following should be documented and signed on the appropriate page of the treatment book; consent, patients identity bracelet, dentition, allergies and period of fasting. The ODP should remove dentures, hair pins, jewellery and hearing aids from the patient.

The anaesthetist should note any adverse effects from the previous treatment and discuss modifications.

Patients will have received no solid food for a minimum of six hours however clear fluids may be consumed up to two hours prior to induction of anaesthesia.

Pregnancy testing will be offered to all women of childbearing age prior to the course of ECT commencing and the patient will be asked if there is a chance of pregnancy at each check prior to individual treatments and be offered a pregnancy test if required. Pregnancy tests will be available in the ECT clinic and staff are trained to perform them.

Intra-operative care

The patient should then be transferred to the treatment room where monitoring of blood pressure, pulse, ECG and end tidal CO2 should be applied to every patient. A baseline set of observations must be taken before the commencement of anaesthesia.

Anaesthesia is administered on a trolley or bed that can be swiftly tipped to a head down position.

Establish IV access and after adequate pre-oxygenation, a general anaesthetic induction agent (first choice is thiopentone; second choice is etomidate if there are problems with inadequate seizures) should be administered.

This is followed by Suxamethonium at appropriate doses. Once the drugs have been given the patient should be hyperventilated using 100% oxygen by bag and mask as hypocarbia has been shown to lower seizure threshold. A bite block should be inserted in all patients to avoid unnecessary stress on the temporo-mandibular joints and trauma to the mouth. At this point the treatment paddles will be applied to the prepared area and an electrical stimulus calculated in accordance with the

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	35 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

Psychiatric Protocol is applied. When clonic movement ceases ventilation of the lungs should resume until there is return of spontaneous ventilation.

In the case of first ECT treatment, it may be necessary to prolong anaesthesia for a further 90 seconds for the application of a second shock. It is advisable to have a second dose of anaesthetic drug and muscle relaxant (half the original dose) drawn up.

Once the treatment and recording of the seizure has finished, ventilatory support will be needed till spontaneous ventilation returns. The patient should either be turned onto the recovery position or sat up to help support the airway. A second set of observations should be taken after induction of anaesthesia and every 5 minutes thereafter.

Adequate records of treatment and incidents should be maintained.

Adverse incidents and near misses are recorded, reported and investigated.

Dantrolene is stored in a locked drug cupboard within the treatment room and further provision is available at the UHW where the patient would be transferred.

Postoperative care

The patient should be transferred to the recovery area where they will receive supplemental oxygen by facemask.

The adequacy of the patient's airway should be determined before starting the next anaesthetic, which may need to be delayed if necessary.

A trained recovery practitioner competent in suction techniques, resuscitation procedures, including basic life support should inform the Anaesthetist if there is any cause for concern.

The patients' pulse, O2 saturation and blood pressure are monitored until stable. One to one nurse monitoring is required till the patient is fully conscious and conversant.

Levels and length of post treatment confusion and disorientation are monitored; documented and future treatment is reassessed if cognitive impairment is a problem.

Once the patient is awake and obeys commands, the patient is moved to a quiet area. Following full recovery, they are offered something to eat and drink. Once ECT staff is satisfied that the patient has fully recovered, the patient will be escorted back to the ward by a trained member of staff. Observation is continued on the ward and the staff should inform the psychiatric team of any untoward post-treatment effects including cognitive or non-cognitive effects.

Both the Anaesthetist and Psychiatrist should remain in the building and contactable till all patients are fully conscious and are physiologically stable.

For outpatients:

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	36 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

Time of discharge to home will be decided by the recovery nurse and or the ECT clinic nurse in charge of the treatment patients recovery or session; this would be based on satisfactory discharge criteria but there is no set minimum time of stay after ECT beyond an initial hour. Patients will be discharged with a responsible adult who can take them home. When there is a delay in complete recovery, the patient will be transferred to a ward for further monitoring until they can be discharged home. (see attached ECT day patient procedural guidance and discharge criteria.)

Emergencies:

Drugs for anaphylaxis and malignant hyperpyrexia as well as advanced life support are available in the ECT Suite.

Guidelines for the treatment of anaphylaxis, malignant hyperpyrexia, Suxamethonium apnoea and ALS Algorithm are available.

Where an All Wales Do Not Attempt Resuscitation (DNAR) form has been completed and discussion has taken place and the form is in use, a copy of the DNAR form will be available to the ECT clinic prior to any ECT commencing. A discussion with the patient, family and or LPA will take place to discuss the patient's individual risk and this should be documented in the patient's notes. Ideally the decision on whether the DNAR is suspended during ECT, or if it stands, should be documented on the DNAR form. Where it is not documented the DNAR agreement will be suspended for the duration of the anaesthesia, administration of ECT and the immediate post ECT recovery period.

ASA GRADE (American Society of Anaesthesiologists)

1. A normal healthy patient
2. A patient with mild systemic disease (not affecting lifestyle)
3. A patient with severe systemic disease (affecting lifestyle)
4. A patient with severe systemic disease that is a constant threat to life
5. A moribund patient who is not expected to survive without the operation

Reviewed November 2018

10. ECT TREATMENT OUTCOME FORM

PATIENT'S NAME

Clinical status/symptomatic response:

Please record the patients Clinical Global Impression (CGI) score

HAMD	CGI
0-6	1 = Normal, not at all ill
7-9	2 = Borderline mentally ill
10-16	3 = Mildly ill
17-24	4 = Moderately ill
25-29	5 = Markedly ill
30-39	6 = Severely ill
40	7= Extremely ill

(Orientation) Date/Day/Place only:

(Short-term memory and concentration) Ask one question only (and rotate questions at different reviews)

Either 1) serial sevens, 2) who is the prime minister, 3) can you name any recent news event

When was the last time you had ECT? (Can the patient remember this correctly?)

Subjective sense of memory loss:

Physical side effects

E.g. headache, muscular headache

HAM-D score (Weekly to be entered by ECT staff)

NB If patient is receiving treatment under S58A please complete the attached capacity assessment form.

If the patient is thought to have regained capacity, then treating consultant will need to obtain written consent from patient.

Nurse reviewing signature Date.....
Time.....

Administrating practitioner signature -----
Date-----

Print name..... Time-----

11. PROTOCOL FOR ECT IN OLDER SERVICE USERS

1. Age itself does not constitute a contra-indication for ECT and people should not be denied access to ECT solely on the grounds of age.^{1,2} However, it needs to be remembered:
 - Co-existing medical and or surgical conditions tend to accumulate with increasing age³
 - Seizure threshold may rise with age particularly in older men^{4,5}
 - Risk of having cognitive adverse effects of ECT treatment may rise with age especially those who have pre-existing memory problems⁶
2. Therefore:
 - In common with all patients receiving ECT older service users should be thoroughly assessed for all co-existing medical or surgical conditions with relevant investigations and, where possible, such conditions must be stabilised or treated well before consideration for ECT treatment.
 - In any doubt about suitability of the older service user to initiate or continue ECT treatment, the primary medical team may liaise and seek advice from the Consultant Psychiatrist in ECT Department, the Consultant Anaesthetists and or the problem relevant speciality consultant.
3. In older service users a change in anaesthetic agent may need to be considered for reducing seizure threshold in those who are not having a proper therapeutic seizure despite adequate stimulus dosing.

Any such action should have a formal consultation and agreement between the Consultant Psychiatrist responsible for ECT clinic, the Consultant Psychiatrist responsible for the care of the service user and the Consultant Anaesthetist in ECT clinic.

References:

1. Benbow, S M. The use of electroconvulsive therapy in old age psychiatry. *International Journal of Geriatric Psychiatry*, 1987; 2: 25 - 30
2. Department of Health. National Service Framework for Older People, 2001; DoH
3. Alexopoulos, G.S., Shamion, C.J., Lucas, J. et al. Medical problems of geriatric and psychiatric patients and younger controls during electroconvulsive therapy. *Journal of American Geriatric Society*, 1984; 32: 651-54
4. Coffey, C.E., Lucke, J., Weiner, R.D. et al. Seizure threshold in electroconvulsive therapy 1: initial seizure threshold. *Biological Psychiatry*
5. Sackeim, H.A. et al. A prospective, randomised, double-blind comparison of bilateral and right unilateral electroconvulsive therapy at different stimulus intensities. *Archives of General Psychiatry*, 2000; 57: 445-6

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	39 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

6. Sobin, C., Sackeim, H.A., Prudic, J. Et al. Predictors of retrograde amnesia following ECT. *American Journal of Psychiatry*, 1995: 152:995-1001
7. Fraser, R.M., Glass, I.B. Unilateral and bilateral ECT in elderly patients-a comparative study. *Acta Psychiatrica Scandinavica*, 1980; 62: 13-31

Reviewed November 2018

12. ECT CHECKLIST

Key: Tick = Yes Cross = No N/A Not applicable All Sections must be completed and signed	Key	Clinic Nurse Sign
Medical Notes with patient		
ECT Record Present and Completed		
If patient has capacity, have they signed consent?		
Does the patient know why they are in the ECT clinic today?		
Are they consenting to treatment today?		
Do you have any concerns about the patient's ability to consent?		
Is patient sectioned? Please State:		
If patient sectioned MHA rights leaflet for ECT given		
If they lack capacity is form CO6 completed, correct and present in notes		
If they are sectioned and consenting is form CO4 completed present and correct in notes		
If being treated under Section 62, is form present and correct in notes		
If being treated under MCA is consent form 4 completed and in notes		
ECT Outcome Form Completed and in notes with capacity assessment attached and completed if under form CO6		
Prescription Chart present and medication given/omitted according to guidance		
Analgesia and Anti emetic prescribed PRN		
Patient wearing ID bracelet with addressograph fully visible and details verbally checked with patient (or staff if patient unable)		
Does patient have sensitivities/ allergies? State:		
Patient Nil by Mouth		
Last Fluids taken Last Food taken		
Written information on ECT given to patient?		
Earrings and tight necklaces removed?		
Makeup and Nail Varnish removed?		
Hair pins and slides and hair lacquer removed?		
Contact Lenses removed?		
Does patient have dentures/caps/crowns? State:		
Is patient wearing a hearing aid?		
Today's observations Time: Pulse: BP: Temp: Resps: Height: Weight: SpO2: BM (if diabetic)		
Any chance of patient being pregnant? If so, has pregnancy test been offered Result:		
Day patient agreement signed?		
Property Disclaimer Signed?		
Has patient passed Urine?		
For ECT nurse: Capacity assessment completed in prior to treatment if patient under Sec 58A form CO6 or MCA Best interests or if there are concerns about capacity?		
Signature of ECT Nurse Completing Checklist:		
Designation: Date: Time:		

13. ECT DAY PATIENT PROCEDURAL GUIDANCE AND DISCHARGE CRITERIA

Day patient guidance

All day patients attending for ECT can attend the ECT clinic directly from 08.00 on the day of treatment. Later arrivals should be arranged directly and in agreement with the ECT clinic staff. ECT clinic staff will liaise with day patients, family, friends and inpatient units to manage the waiting times and ensure sufficient time for assessment and review by nurses and psychiatrists as per the one stop shop approach.

To meet the ECTAS standards for ECT clinics, accompanying staff will be provided by the ECT team for all day patients except for those under the care of. Patients from MHSOP will be accompanied by staff from the referring team or from a community or day service team.

Arrangements will be in place prior to commencement of ECT treatment for the collection of a patient by a nominated responsible adult. Failure of these arrangements to be in place could lead to the cancelling of the ECT treatment. Where a patient does not have someone who can act as a responsible adult, it is the responsibility of the treating team to make arrangements for the patient to remain in hospital, arrange a bed in the crisis house or in community care setting for the 24 hour period post-ECT.

All patients who attend the clinic for ECT treatment must be accompanied by a suitably trained member of staff. The accompanying member of staff will remain with the patient throughout their ECT journey until they are considered fit for discharge from the ECT clinic.

Patients may return home no sooner than one hour after ECT administration (longer if necessary) and will meet the ECT clinic discharge criteria. If the patient needs an extended recovery period as decided by the ECT clinic nurse or recovery practitioner, then the patient will remain in the ECT clinic for an extended period or be transferred to an inpatient ward or to another appropriate service until they are fit for discharge home.

The assessment and decision to discharge from the ECT clinic will be the responsibility of a recovery practitioner or qualified nurse in ECT. The patient will not leave the ECT clinic without the permission of the qualified nurse/recovery practitioner in charge of their care. If the recovery practitioner has concerns over the mental state of the patient, they will seek advice from a qualified nurse from the ECT team. The ECT clinic nurse will assess the patient and discharge the patient where appropriate or seek psychiatric review from the junior doctor covering ECT, the ECT consultant or from the crisis team as appropriate.

They and their responsible adult will have signed the day patient discharge form contained in the ECT record and will confirm that they will not drive during an acute course of ECT or for 48 hours after ECT when receiving continuation or maintenance treatments. They will not operate machinery or have sole responsibility for children for 24 hours. They will not sign legal documentations or drink alcohol for 24 hours after each treatment or until advised by their consultant psychiatrist.

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	42 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

They will be collected from the ECT clinic by a responsible adult who will accompany them home and they will stay in the presence of a responsible adult for 24 hours following treatment. Where no arrangements are in place for collection by a responsible adult or for admission to a bed in hospital, then attempts should be made to arrange a bed in the crisis house or other community setting: otherwise, treatment will be cancelled. Where it is not possible for the patient to be collected it is the responsibility of the ECT team to make arrangements to accompany the patient to their nominated responsible adult.

At the discretion of the ECT Clinic Manager outpatients who cannot be collected by their responsible adult at the time they meet the discharge criteria may remain in the care of the ECT team in the ECT clinic or other appropriate care setting until responsibility for their care is passed to the patient's responsible adult. This must be arranged on an individual patient basis or for individual treatment days with the ECT clinic manager.

Cardiff ECT Clinic Discharge criteria

All patients will be seen and assessed by a qualified nurse or recovery practitioner of the ECT clinic prior to discharge from the clinic.

For the purpose of aiding qualified nurses/recovery practitioner to assess and discharge home the Post Anaesthesia Discharge scoring system (PADSS) developed by Marshall and Chung will be used. This has been adapted by the ECT clinic team to be more appropriate for assessing patients post ECT. The total score is 8 and patients scoring 7 or above are fit for discharge.

Vital signs:

Vital signs must be stable and consistent with age and pre ECT baseline.

BP and pulse within 20% of preoperative baseline 2

BP and pulse within 20-40% of preoperative baseline 1

BP and pulse >40% from preoperative baseline 0

Activity level:

Patient must be able to ambulate at pre ECT level.

Steady gait, no dizziness (or meets pre ECT level) and pre ECT orientation level 2

Requires assistance or orientated to pre ECT level 1

Is neither orientated nor able to ambulate 0

Nausea and Vomiting:

The patient should have minimal nausea and vomiting prior to discharge.

Minimal: successfully treated with oral or (IV during procedure) medication 2

Moderate: successfully treated with intramuscular medication 1

Severe: continues after repeated treatment 0

Pain:

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	43 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

*The patient should have minimal or no pain prior to discharge.
The level of pain that the patient has should be acceptable to the patient.
Pain should be controllable by oral analgesics.
The location, type and intensity of pain should be consistent with the anticipated post ECT discomfort.*

Acceptability: Yes 2
No 0

All patients will be discharged into the care of a responsible adult or member of staff.
The patient and or the responsible adult will understand the day patient discharge form and its contents and sign the agreement.

Post Anaesthesia Discharge scoring system PADSS developed by Marshall and Chung adapted for ECT by ECT Team

Category	Score*	Explanation
Vital signs	2	Within 20% of preoperative value
	1	Within 20 to 40% of preoperative value
	0	Within 40% of preoperative value
	0	
Activity, mental status	2	Oriented and steady gait
	1	Oriented or steady gait
	0	Neither
	0	
Pain, nausea, vomiting	2	Minimal
	1	Moderate
	0	Severe
	0	
Intake/output	2	Oral fluid intake and voiding
	1	Oral fluid intake or voiding
	0	Neither
	0	

Total score is 8. Patients scoring 7 or above are fit for discharge

Reviewed January 2019

14. PROTOCOL FOR CARDIAC ARREST IN THE ECT CLINIC

ECT is administered in the Hafan Y Coed unit in Llandough acute general hospital. The mental health services including ECT are part of the Resuscitation hospital team response.

For any peri-arrest or cardiac arrest staff will immediately summon help by calling 2222 and requesting the Resuscitation team by stating the nature of the call and the location.

Staff will commence CPR as per the Resuscitation council UK current guidelines.

ALS Algorithm is available within the UHW anaesthetic department guidelines, which is available as electronic documents on the clinical portal as well as on computers in the ECT clinic; they are also prominently displayed in the Treatment room of the ECT clinic.

All appropriate medications and equipment will be checked and stocked by the ECT clinic staff.

Where an All Wales Do Not Attempt Resuscitation (DNAR) form has been completed and discussion has taken place and the form is in use, a copy of the DNAR form will be available to the ECT clinic prior to any ECT commencing. A discussion with the patient, family and or LPA will take place to discuss the patient's individual risk and this should be documented in the patient's notes. Ideally the decision on whether the DNAR is suspended during ECT, or if it stands, should be documented on the DNAR form. Where it is not documented the DNAR agreement will be suspended for the duration of the anaesthesia, administration of ECT and the immediate post ECT recovery period.

Reviewed January 2019

15. PROTOCOL FOR MANAGEMENT FOR ANAPHYLAXIS

Guidelines for the treatment of anaphylaxis are available within the UHW anaesthetic department guidelines, which is available as electronic documents on the clinical portal as well as on computers in the ECT clinic and are prominently displayed in the ECT Treatment room and recovery area. All appropriate medications and equipment will be checked and stocked by the ECT clinic staff.

The ECT clinic provides and maintains an emergency box which includes the anaphylaxis algorithm and all necessary medication and administering equipment. This is stored on top of the resuscitation trolley.

Reviewed November 2018

16. PROTOCOL FOR MANAGEMENT OF MALIGNANT HYPERTHERMIA

Successful management of malignant hyperthermia depends upon early diagnosis and treatment; onset can be within minutes of induction or may be insidious. The standard operating procedure below is intended to ease the burden of managing this rare but life-threatening emergency.

Guidelines for the treatment of malignant hyperthermia are available within the UHW anaesthetic department guidelines, which is available as electronic documents on the clinical portal as well as on computers in the ECT clinic and are prominently displayed in the ECT Treatment room and in the emergency malignant hyperthermia box. All appropriate medications and equipment will be checked and stocked by the ECT clinic staff.

A black emergency box is available for the management of malignant hyperthermia. The Black box containing Dantrolene is stored in the ECT clinic treatment room. This also contains a copy of the malignant hyperthermia Crisis AAGBI safety guidance and protocols, 9 20mg vials of Dantrolene, 9 100ml vials of water for injection, sufficient syringes and needles for mixing.

In the same cupboard in the ECT treatment room is also stored a back up supply for subsequent doses. This includes a further 27 20mg vials of Dantrolene, with sufficient 100ml water for injection, syringes and needles for mixing.

Reviewed November 2018

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	47 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

Malignant Hyperthermia Crisis

AAGBI Safety Guideline



Successful management of malignant hyperthermia depends upon early diagnosis and treatment; onset can be within minutes of induction or may be insidious. The standard operating procedure below is intended to ease the burden of managing this rare but life threatening emergency.

1 Recognition	<ul style="list-style-type: none"> Unexplained Increase in ETCO_2 AND Unexplained tachycardia AND Unexplained Increase in oxygen requirement (Previous uneventful anaesthesia does not rule out MH) Temperature changes are a late sign
2 Immediate management	<ul style="list-style-type: none"> STOP all trigger agents CALL FOR HELP. Allocate specific tasks (action plan in MH kit) Install clean breathing system and HYPERVENTILATE with 100% O_2 high flow Maintain anaesthesia with intravenous agent ABANDON/FINISH surgery as soon as possible Muscle relaxation with non-depolarising neuromuscular blocking drug
3 Monitoring & treatment	<div> <ul style="list-style-type: none"> Give Dantrolene Initiate active cooling avoiding vasoconstriction TREAT: <ul style="list-style-type: none"> Hyperkalaemia: calcium chloride, glucose/insulin, NaHCO_3 Arrhythmias: magnesium/amiodarone/metoprolol. AVOID calcium channel blockers – interaction with dantrolene Metabolic acidosis: hyperventilate, NaHCO_3 Myoglobinuria: forced alkaline diuresis (mannitol/furosemide + NaHCO_3) may require renal replacement therapy later DIC: FFP, cryoprecipitate, platelets Check plasma CK as soon as able For Paediatric Doses see Section 6 </div> <div> <p>DANTROLENE 2.5mg/kg Immediate iv bolus. Repeat 1mg/kg boluses as required to max 10mg/kg</p> <p>For a 70kg adult</p> <ul style="list-style-type: none"> Initial bolus: 3 vials dantrolene 20mg (each vial mixed with 60ml sterile water) Further boluses of 4 vials dantrolene 20mg repeated up to 7 times <p>For Dantrolene Doses in Paediatric patients see Section 5</p> <p>Continuous monitoring Core & peripheral temperature ETCO_2 SpO_2 ECG Invasive blood pressure CVP</p> <p>Repeated bloods ABG U&Es (potassium) FBC (haematocrit/platelets) Coagulation</p> </div>
4 Follow-up	<ul style="list-style-type: none"> Continue monitoring on IC U; repeat dantrolene as necessary Monitor for acute renal injury and compartment syndrome Repeat CK Consider alternative diagnoses (sepsis, pheochromocytoma, thyroid storm, myopathy) Counsel patient & family members Refer to MH unit (see contact details below)

The UK MH Investigation Unit, Academic Unit of Anaesthesia, Clinical Sciences Building, St James's University Hospital Trust, Leeds LS9 7TF. Direct line: 0113 206 5270. Fax: 0113 206 4140. Emergency Hotline: 07947 609601 (usually available outside office hours). Alternatively, contact Prof Hopkins or Dr Halsall through hospital switchboard: 0113 243 3144.

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	48 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

Your nearest MH Kit is stored

This guideline is not a standard of medical care. The ultimate judgement with regard to a particular clinical procedure or treatment plan must be made by the clinician in the light of the clinical data presented and the diagnostic and treatment options available.
© The Association of Anaesthetists of Great Britain & Ireland 2015

Malignant Hyperthermia Crisis

AAGBI Safety Guideline



<h1>5</h1> <p>Paediatric Administration of Dantrolene</p>	<ul style="list-style-type: none"> Mix 20mg (one vial) of Dantrolene with 60ml of sterile water to make a Dantrolene solution of 1mg in 3ml. Give an initial bolus of 7.5mg/kg of the Dantrolene solution (~2.5mg/kg) Repeat further doses of 3 mg/kg (~1mg/kg) up to a maximum of 30mg/kg in total of Dantrolene. For a 10kg infant: <ul style="list-style-type: none"> Give an initial bolus of 75mls (2.5mg/kg) of Dantrolene solution followed by 30ml (1mg/kg) boluses as required up to a maximum of 300mls (10mg/kg) of Dantrolene solution in total. Remember to include the Dantrolene solution administration in the overall fluid bolus totals i.e. 300ml of Dantrolene Solution in a 10kg child = 30ml/kg of fluid.
---	--

<h1>6</h1> <p>Paediatric Administration of Supportive Therapy</p>	<p>MAINTENANCE OF ANAESTHESIA:</p> <ul style="list-style-type: none"> Benzodiazepine and Opioid: Propofol TIVA is contraindicated in Critically Ill Children. <p>ARRHYTHMIAS:</p> <ul style="list-style-type: none"> Magnesium: 0.2 mmol/kg (50mg/kg). Give slowly by IV injection not >10mg/kg/min Amiodarone: 5mg/kg over 20 minutes then 300micrograms/kg/hour. Max 1.2g in 24 hours Esmolol: Loading dose of 500mcg/kg over 1 min then an infusion of 50mcg/kg/min over 4 mins Re-load with 500mcg/kg if inadequate response and increase infusion by 50mcg/kg/min Repeat until effective or a maximum infusion of 200mcg/kg/min is reached. AVOID calcium channel blockers they interact with Dantrolene <p>HYPERKALAEMIA: Calcium Gluconate 10%: 0.5ml/kg to a maximum of 20ml 10% Dextrose (5mg/kg) + Insulin (0.1 Units/kg) over 20 minutes. Monitor Blood Sugar.</p> <p>ACIDOSIS: Correct with SODIUM BICARBONATE 0.5-1.0 mmol/kg (0.5-1.0 ml of 8.4% NaHCO₃/kg).</p> <p>URINE OUTPUT: Need to maintain urine output at least 2 ml/kg/hr if required use: MANNITOL 0.5 - 1.0 g/kg (2.5 - 5 ml/kg of 20% solution) and/or FUROSEMIDE 1 mg/kg IV</p> <p>DIC:</p> <table border="0"> <tr> <td>FFP</td><td>10ml/kg</td></tr> <tr> <td>Cryoprecipitate</td><td>5ml/kg body weight up to 30kg</td></tr> <tr> <td></td><td>5 units at a time are issued to children >30kg</td></tr> <tr> <td>Platelets</td><td><30kg 10ml/kg</td></tr> <tr> <td></td><td>>30kg one pool of donors</td></tr> </table>	FFP	10ml/kg	Cryoprecipitate	5ml/kg body weight up to 30kg		5 units at a time are issued to children >30kg	Platelets	<30kg 10ml/kg		>30kg one pool of donors
FFP	10ml/kg										
Cryoprecipitate	5ml/kg body weight up to 30kg										
	5 units at a time are issued to children >30kg										
Platelets	<30kg 10ml/kg										
	>30kg one pool of donors										

Drug doses references from the BNF for children. The drugs advised are for the initial management of MH. For ongoing and definitive treatment please contact your regional Paediatric Intensive Care Unit.

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	49 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

Malignant Hyperthermia Crisis Task Allocations

AAGBI Safety Guideline



The successful management of a malignant hyperthermia crisis requires multiple simultaneous treatment actions. This is made far easier through effective teamwork and specific task allocation.

1st anaesthetist - commence immediate management (on guideline sheet)

The anaesthetist diagnosing MH or the most senior anaesthetist responding should assume the role of clinical leader once immediate management actions have been undertaken and avoid becoming focused on a single task.

2nd anaesthetist - resuscitation

- Ensure dantrolene is given in correct dose (2.5mg/kg initially then 1mg/kg every 10-15min)
- Commence TIVA
- Management of hyperkalaemia
- Management of arrhythmias
- Management of acidosis
- Renal protection (forced alkaline diuresis)

1st anaesthetic nurse/ODP

- Collect MH kit
- Collect cold saline & insulin
- Set up lines (arterial/CVC)
- Runner for resuscitation drugs/equipment

2nd anaesthetic nurse/ODP (ideally two people)

- Draw up dantrolene as requested by anaesthetist in charge of resuscitation

3rd anaesthetist - lines/investigations

- Site arterial line
- Send bloods for
 - ABG – repeated (approx every 30 min initially)
 - U&Es
 - CK
 - FBC
 - Coagulation screen
 - Cross match
- Central venous access
- Urinary myoglobin
- Monitor core and peripheral temperatures

Surgical team

- Catheterise
- Complete/abandon surgery as soon as feasible
- Undertake cooling manoeuvres

Adapted from the Malignant Hyperthermia Australia and New Zealand (MHANZ) MH Resource Kit with permission

17. PROTOCOL FOR THE STORAGE OF DANTROLENE

Dantrolene is used in the treatment of Malignant Hyperthermia (MH) which can result from the use of trigger agents including depolarising neuromuscular agonist, Suxemethonium; the volatile anaesthetic agents Halothane, Enflurane, Isoflurane Cyclopropane and Sevoflurane; the 5 Hydroxytryptamine receptor agonist Sumatriptan and Ketamine. Suxemethonium is used routinely in the administration of modified ECT.

Dantrolene will be readily available for administration for patients who develop MH whilst in ECT clinic. It is to be kept in a locked cupboard within the ECT treatment room. Along with 100ml of water for injection for each vial of Dantrolene with 2 x 50ml luer lock syringes for mixing and wide bore blunt needles.

The monitoring of the expiry date and ordering of Dantrolene is the responsibility of the nursing staff working in the ECT clinic.

Reviewed November 2018

18. PROTOCOL FOR PREPARING THE PATIENT FOR ECT

For referring and preparing a patient for a course of ECT see 'Referrals and preparation for ECT and the one stop shop approach' above.

On the day of treatment all inpatients attending for ECT treatment will be prepared by the inpatient ward.

The ECT checklist will be completed by a qualified nurse on the inpatient ward and brought with the patient, the notes, medication chart to the ECT clinic at the requested time.

All medication except those to be omitted should be administered as per the protocol on administering of medication for ECT treatment.

The patient should have nothing to eat for 6 hours prior to 8am and water only up to 2 hours prior to ECT clinic start at 8am.

All medication should be taken with a sip of water only.

Nil by Mouth (NBM) includes no sweets or chewing gum from 6 hours prior to treatment.

Information about the preparation of the patient can be found in the Patient ECT leaflet, and the ECT checklist.

On arriving in the ECT clinic the ECT staff nurse will check all documentation, review the patient using the outcome from and appropriate assessment tool at the recommended intervals. The ECT checklist will be used to check the patient in.

Out patients will arrive at 8am in the ECT clinic on days of treatment and the ECT All day patients and inpatients will be reviewed weekly using the Hamilton Depression scale and the patient will be reviewed after each treatment using the ECT outcome form.

All documentation will be checked by an ECT staff nurse prior to ECT being administered.

Reviewed November 2018

19. PROTOCOL FOR DEALING WITH PATENT VALUABLES

All patients come under the Hafan Y Coed protocol for patient valuables available on the intranet in the clinic and on all wards.

Patients will be encouraged to leave valuables at home or on their inpatient wards.

In the ECT clinic as part of the preparation and checking-in process patients will be asked if they wish to lock any valuables in the lockers provided. If they do not they will be asked to sign the valuables disclaimer used within the UHB to indicate that they have declined the opportunity valuables away.

The clinic has sufficient lockers for all patients receiving treatment to use if they wish.

20. ECT CLINIC PROTOCOL FOR USE OF NEWS SCORING IN THE ECT CLINIC

The Adult Mental Health NEWS observation and scoring chart will be used in the ECT suite for all patients receiving ECT in Hafan Y Coed ECT clinic

Observations pre ECT treatment will be taken, scored and escalated according to the agreed 'In-hours' flow chart. While the patient is in the ECT treatment room under the direct care of the consultant anaesthetist observations will be taken and recorded but escalation will be at the discretion and decision of the consultant anaesthetist in charge of care.

When the patient is transferred to recovery room the patient will continue to have observations taken according to the ECT recovery care plan for ECT and these will be scored but again escalation will be the decision of the consultant anaesthetist responsible for care if still available in the ECT clinic, This is because initially cardiovascular observations post treatment and anaesthesia can outside of a patients normal parameters and will frequently score high but be quickly resolved as the recovery process continues. If the consultant anaesthetist has left then the 'In-hours' flow chart escalation process will be followed.

The observations taken at the ½ hour point post ECT recovery will be scored and escalated as per the Adult Mental Health services NEWS chart. All subsequent observation in the post recovery room and prior to discharge from the ECT clinic will also be scored and escalated as per the chart. Advice may still be sought and review requested from the consultant anaesthetist or SHO who may still be present in the clinic but all scores of 9 and above at this point will be subject to a Resuscitation team call.

Reviewed November 2018

Equality & Health Impact Assessment for

{insert title of strategy/ policy/ plan/ procedure/ service}

Please read the Guidance Notes in Appendix 1 prior to commencing this Assessment

Please note:

- The completed Equality & Health Impact Assessment (EHIA) must be
 - Included as an appendix with the cover report when the strategy, policy, plan, procedure and/or service change is submitted for approval
 - Published on the UHB intranet and internet pages as part of the consultation (if applicable) and once agreed.
- Formal consultation must be undertaken, as required¹
- Appendices 1-3 must be deleted prior to submission for approval

Please answer all questions:-

1.	For service change, provide the title of the Project Outline Document or Business Case and Reference Number	Electro-Convulsive Therapy (ECT) Procedural Guidance
2.	Name of Clinical Board / Corporate Directorate and title of lead member of staff, including contact details	Mental Health Clinical Board Kara Hannigan (clinic manager) ECT clinic Hafan y Coed Llandough Hospital Penlan Road Penarth
3.	Objectives of strategy/ policy/ plan/ procedure/ service	To provide guidance for the administration of ECT in Cardiff and Vale University Health Board. To maintain standards of administration of care and treatment of ECT patients in Cardiff and Vale UHB in line with national standards.
4.	Evidence and background information considered. For example <ul style="list-style-type: none"> • population data • staff and service users data, as applicable • needs assessment • engagement and 	The evidence considered here for EHIA included: <ul style="list-style-type: none"> • the statistical data produced by the ECT clinic and the ECTAS data set which is submitted and produced for individual clinics as well as data for England, Wales and the island of Ireland. • Use of patient individual data that had

¹http://www.cardiffandvale.wales.nhs.uk/portal/page?_pageid=253,73860407,253_73860411&dad=portal&_schema=PORTAL

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	55 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

<ul style="list-style-type: none"> involvement findings research good practice guidelines participant knowledge list of stakeholders and how stakeholders have engaged in the development stages comments from those involved in the designing and development stages <p>Population pyramids are available from Public Health Wales Observatory² and the UHB's 'Shaping Our Future Wellbeing' Strategy provides an overview of health need³.</p>	<p>been audited and evaluated by the lead consultant psychiatrist.</p> <ul style="list-style-type: none"> The clinic receives feedback bimonthly from service users receiving ECT by completion of patient surveys; this information is reviewed within the clinic and at senior nurse level prior to the information being produced as part of the mental health community survey results. Recent research in ECT administration and care is regularly reviewed by the ECT team led by a professor of psychiatry. The ECTAS standards for the administration of ECT are followed and form the basis of the ECT procedural guidance. The ECTAS accreditation audit findings completed at the self-review and at the peer review accreditation visit every three years. This process includes ECT service user feedback and attendance by a service user from the HYC ECT clinic and a service user from ECTAS. The service users have experiential knowledge of ECT treatment. As part of the ECTAS accreditation review the above document is reviewed by the peer review team and then at the Royal College of Psychiatrists ECTAS accreditation committee (which includes service user members) prior to the clinic receiving accreditation. The ECT team attend national and international conferences to keep ECT practice up to date with current practice and research. The procedural guidance was completed by the ECT multidisciplinary team with direct input from, and collaboration with, the UHB MCA manager and the MHA manager, ECT anaesthetics lead and ODP and recovery manager. The procedural guidance has been reviewed and comments and adjustments made by the above stakeholders during the development process.
--	---

² <http://nww2.nphs.wales.nhs.uk:8080/PubHObservatoryProjDocs.nsf>

³ <http://www.cardiffandvaleuhb.wales.nhs.uk/the-challenges-we-face>

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	56 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

5.	Who will be affected by the strategy/ policy/ plan/ procedure/ service	ECT service users, families and friends. CV UHB staff. Staff from other health care provider organisations referring patients to the ECT clinic.
----	--	--

6. EQIA / How will the strategy, policy, plan, procedure and/or service impact on people?

Questions in this section relate to the impact on people on the basis of their 'protected characteristics'. Specific alignment with the 7 goals of the Well-being of Future Generations (Wales) Act 2015 is included against the relevant sections.

How will the strategy, policy, plan, procedure and/or service impact on:-	Potential positive and/or negative impacts	Recommendations for improvement/ mitigation	Action taken by Clinical Board / Corporate Directorate. Make reference to where the mitigation is included in the document, as appropriate
6.1 Age For most purposes, the main categories are: <ul style="list-style-type: none"> under 18; between 18 and 65; and over 65 	No adverse impacts identified at this stage of screening, but any negative impacts will be addressed through policy review/compliance	The procedural guidance includes protocols to ensure that ECT treatment and care given to particular groups considers their needs. These groups are people who are: <ul style="list-style-type: none"> Under 18 Over 65 Between 18 and 65 	
6.2 Persons with a disability as defined in the Equality Act	Lack of ability to retain information about their	Patients are given appointment cards and verbal	

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	57 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

How will the strategy, policy, plan, procedure and/or service impact on:-	Potential positive and/or negative impacts	Recommendations for improvement/mitigation	Action taken by Clinical Board / Corporate Directorate. Make reference to where the mitigation is included in the document, as appropriate
2010 Those with physical impairments, learning disability, sensory loss or impairment, mental health conditions, long-term medical conditions such as diabetes	treatment and fulfil the safety requirements before and after treatment could be a factor	reminders. Information is available in easy read and large print. Staff verbally explain ECT information throughout the treatment course. Translation services are used for anyone where appropriate, notably for people whose first language is not English. Written information on ECT is available in Welsh, and in other languages on request or as needed. The clinic has facilities for wheelchair or physically disabled service users.	

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	58 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

How will the strategy, policy, plan, procedure and/or service impact on:-	Potential positive and/or negative impacts	Recommendations for improvement/mitigation	Action taken by Clinical Board / Corporate Directorate. Make reference to where the mitigation is included in the document, as appropriate
6.3 People of different genders: Consider men, women, people undergoing gender reassignment NB Gender-reassignment is anyone who proposes to, starts, is going through or who has completed a process to change his or her gender with or without going through any medical procedures. Sometimes referred to as Trans or Transgender	No adverse impacts identified at this stage of screening but any negative impacts will be addressed through policy review/compliance.		
6.4 People who are married or who have a civil partner.	No adverse impacts identified at this stage of screening, but any negative impacts will be addressed through policy review/compliance		
6.5 Women who are expecting a baby, who are on a break from work after	Women who are pregnant will be cared for under the anaesthetic	These precautions are included within the attached protocols and	

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	59 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

How will the strategy, policy, plan, procedure and/or service impact on:-	Potential positive and/or negative impacts	Recommendations for improvement/mitigation	Action taken by Clinical Board / Corporate Directorate. Make reference to where the mitigation is included in the document, as appropriate
having a baby, or who are breastfeeding. They are protected for 26 weeks after having a baby whether or not they are on maternity leave.	protocol included and may need extra precautions and treatment within an acute hospital theatre with obstetric care immediately available. The same may apply to women in the post-partum period	women's needs will be assessed on an individual basis.	
6.6 People of a different race, nationality, colour, culture or ethnic origin including non-English speakers, gypsies/travellers, migrant workers	The HB will respond positively to requests of information in alternative formats and provide interpreters as highlighted above	<p>Patients are given appointment cards and verbal reminders. Information is available in easy read and large print.</p> <p>Staff verbally explain ECT information throughout the treatment course.</p> <p>Translation services are used for anyone where appropriate, notably for people whose first language is not English.</p>	

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	60 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

How will the strategy, policy, plan, procedure and/or service impact on:-	Potential positive and/or negative impacts	Recommendations for improvement/mitigation	Action taken by Clinical Board / Corporate Directorate. Make reference to where the mitigation is included in the document, as appropriate
		<p>Written information on ECT is available in Welsh, and in other languages on request or as needed.</p> <p>The clinic has facilities for wheelchair or physically disabled service users.</p>	
<p>6.7 People with a religion or belief or with no religion or belief. The term 'religion' includes a religious or philosophical belief</p>	ECT treatments may be carried out on a Friday morning. This may potentially have an impact on Muslim patients that pray on a Friday.	<p>The service will engage with patients to identify appropriate clinic times and days for treatment to be undertaken. The service provides treatments on four days each week, accommodating the needs of people who have commitments.</p> <p>Religion or Belief: A Practical Guide for the NHS (2009) states that 'Research suggests that attention to the religious and</p>	

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	61 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

How will the strategy, policy, plan, procedure and/or service impact on:-	Potential positive and/or negative impacts	Recommendations for improvement/mitigation	Action taken by Clinical Board / Corporate Directorate. Make reference to where the mitigation is included in the document, as appropriate
		<p>cultural needs of patients and service users can contribute to their wellbeing and, for instance, reduce their length of stay in hospital.'</p> <p>A Cultural Competency Toolkit, was developed by Diverse Cymru, with assistance from UHB staff, and is available online. Its aim is to help staff better interact with clients with mental ill health who are from different cultures.</p>	
6.8 People who are attracted to other people of: <ul style="list-style-type: none"> the opposite sex (heterosexual); the same sex (lesbian or gay); both sexes (bisexual) 	No adverse impact has been identified at this stage of screening for the ECT procedural guidance, however it is acknowledged that the in the wider context of people who are receiving care in mental health	ECT staff will be made aware of relevant policies in the UHB and Mental Health Clinical Board, and of the Values and Behaviours document for those working in and using the service.	

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	62 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

How will the strategy, policy, plan, procedure and/or service impact on:-	Potential positive and/or negative impacts	Recommendations for improvement/mitigation	Action taken by Clinical Board / Corporate Directorate. Make reference to where the mitigation is included in the document, as appropriate
	settings staff should be aware that people from LGBTQI communities are at greater risk of mental disorders, suicide, and deliberate self-harm.		
6.9 People who communicate using the Welsh language in terms of correspondence, information leaflets, or service plans and design Well-being Goal – A Wales of vibrant culture and thriving Welsh language	The ECT service is predominantly provided in English. However, Welsh language written information is always available and there is a database of Welsh speakers within the UHB that allows for Welsh speaking staff assist when needed. There is also a translation service.	Welsh language written information is always available in the clinic, and staff have access to Welsh speakers and translation services.	
6.10 People according to their income related group: Consider people on low income,	Outpatients need to travel to the service, however assistance with transportation is provided.	Agreements are in place for the UHB's crisis teams to help transport adult acute patients to the service, and for	

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	63 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

How will the strategy, policy, plan, procedure and/or service impact on:-	Potential positive and/or negative impacts	Recommendations for improvement/mitigation	Action taken by Clinical Board / Corporate Directorate. Make reference to where the mitigation is included in the document, as appropriate
economically inactive, unemployed/workless, people who are unable to work due to ill-health		MHSOP community teams to help transport older patients. Taxis and ambulance services are also booked and used, along with the volunteer driver within UHL.	
6.11 People according to where they live: Consider people living in areas known to exhibit poor economic and/or health indicators, people unable to access services and facilities	As above: consideration is needed with transportation to appointments is made.	The ECT clinic uses a flexible approach to arranging treatment days around the service user and the service. For assessments, home visits are available for those who find attending hospital more difficult. The clinic also uses strategies like appointment cards and phone calls from staff to help service users who find it hard to engage with the	Please refer to the ECT day patient guidance.

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	64 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

How will the strategy, policy, plan, procedure and/or service impact on:-	Potential positive and/or negative impacts	Recommendations for improvement/mitigation	Action taken by Clinical Board / Corporate Directorate. Make reference to where the mitigation is included in the document, as appropriate
		ECT clinic to receive treatment.	
6.12 Consider any other groups and risk factors relevant to this strategy, policy, plan, procedure and/or service	No other groups or risk factors have been identified at this screening but will be continued to be addressed at regular reviews of the procedural guidance reviewed.	Not applicable.	

7. HIA / How will the strategy, policy, plan, procedure and/or service impact on the health and well-being of our population and help address inequalities in health?

Questions in this section relate to the impact on the overall health of individual people and on the impact on our population. Specific alignment with the 7 goals of the Well-being of Future Generations (Wales) Act 2015 is included against the relevant sections.

How will the strategy, policy, plan, procedure and/or service impact on:-	Potential positive and/or negative impacts and any particular groups affected	Recommendations for improvement/mitigation	Action taken by Clinical Board / Corporate Directorate Make reference to where the mitigation is included in the document, as appropriate
7.1 People being able to access the service	No negative impact identified on review.	Not applicable.	

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	65 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

How will the strategy, policy, plan, procedure and/or service impact on:-	Potential positive and/or negative impacts and any particular groups affected	Recommendations for improvement/mitigation	Action taken by Clinical Board / Corporate Directorate Make reference to where the mitigation is included in the document, as appropriate
offered: Consider access for those living in areas of deprivation and/or those experiencing health inequalities Well-being Goal - A more equal Wales	Possible positive impact with patients with improved mental health after treatment better able to engage with other services.		
7.2 People being able to improve /maintain healthy lifestyles: Consider the impact on healthy lifestyles, including healthy eating, being active, no smoking /smoking cessation, reducing the harm caused by alcohol and /or non-prescribed drugs plus access to services that support disease prevention (eg immunisation and vaccination, falls prevention). Also consider impact on access to supportive services including	Positive impact for patients with improvement in depression and mental health. This will positively impact on ability to maintain a healthy lifestyle.	Not applicable.	

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	66 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

How will the strategy, policy, plan, procedure and/or service impact on:-	Potential positive and/or negative impacts and any particular groups affected	Recommendations for improvement/mitigation	Action taken by Clinical Board / Corporate Directorate Make reference to where the mitigation is included in the document, as appropriate
smoking cessation services, weight management services etc Well-being Goal – A healthier Wales			
7.3 People in terms of their income and employment status: Consider the impact on the availability and accessibility of work, paid/ unpaid employment, wage levels, job security, working conditions Well-being Goal – A prosperous Wales	Positive impact identified; remission rates are good with many service users returning to work after receiving treatment.	Not applicable.	
7.4 People in terms of their use of the physical environment: Consider the impact on the availability and accessibility of transport, healthy food, leisure activities, green spaces; of the design of the built	No negative impact identified at time of review.	Not applicable.	

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	67 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

How will the strategy, policy, plan, procedure and/or service impact on:-	Potential positive and/or negative impacts and any particular groups affected	Recommendations for improvement/mitigation	Action taken by Clinical Board / Corporate Directorate Make reference to where the mitigation is included in the document, as appropriate
<p>environment on the physical and mental health of patients, staff and visitors; on air quality, exposure to pollutants; safety of neighbourhoods, exposure to crime; road safety and preventing injuries/accidents; quality and safety of play areas and open spaces</p> <p>Well-being Goal – A resilient Wales</p>			
<p>7.5 People in terms of social and community influences on their health: Consider the impact on family organisation and roles; social support and social networks; neighbourliness and sense of belonging; social isolation; peer pressure; community identity; cultural and spiritual ethos</p> <p>Well-being Goal –</p>	<p>Positive impact identified with service users in remission having a positive impact on family life and social networks.</p>	<p>Not applicable.</p>	

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	68 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

How will the strategy, policy, plan, procedure and/or service impact on:-	Potential positive and/or negative impacts and any particular groups affected	Recommendations for improvement/mitigation	Action taken by Clinical Board / Corporate Directorate Make reference to where the mitigation is included in the document, as appropriate
A Wales of cohesive communities			
7.6 People in terms of macro-economic, environmental and sustainability factors: Consider the impact of government policies; gross domestic product; economic development; biological diversity; climate Well-being Goal – A globally responsible Wales	No impact identified at time of review	Not applicable.	

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	69 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

Please answer question 8.1 following the completion of the EHIA and complete the action plan

8.1 Please summarise the potential positive and/or negative impacts of the strategy, policy, plan or service	There appears to be no negative impact in the majority of these fields, with some positive impacts on people's wellbeing when a service is accessible to those for whom it is an appropriate treatment. Where some impact may be present there are clear plans in place for staff to reduce impact to certain groups
---	---

Action Plan for Mitigation / Improvement and Implementation

	Action	Lead	Times cale	Action taken by Clinical Board / Corporate Directorate
8.2 What are the key actions identified as a result of completing the EHIA?	No actions required	N/A	N/A	N/A
8.3 Is a more comprehensive Equalities Impact Assessment or Health Impact Assessment required? This means thinking about relevance and proportionality to the Equality Act and asking: is the impact significant enough that a more formal and full consultation is required?	No	N/A	N/A	N/A

Document Title: Electro-convulsive Therapy (ECT) procedural guidance	70 of 75	Approval Date: 17 Oct 2019
Reference Number: UHB 471		Next Review Date: 18 Oct 2022
Version Number: 2		Date of Publication: 22 Nov 2019

	Action	Lead	Timescale	Action taken by Clinical Board / Corporate Directorate
8.4 What are the next steps? Some suggestions:- <ul style="list-style-type: none"> Decide whether the strategy, policy, plan, procedure and/or service proposal: <ul style="list-style-type: none"> continues unchanged as there are no significant negative impacts adjusts to account for the negative impacts continues despite potential for adverse impact or missed opportunities to advance equality (set out the justifications for doing so) stops. Have your strategy, policy, plan, procedure and/or service proposal approved Publish your report of this impact assessment Monitor and review 	No significant negative Impact. The policy will be submitted to the Mental Health Clinical Board policy group for approval. Once the policy has been approved the documentation will be placed on the intranet and internet. The EHIA and Policy will be reviewed every two years after approval unless there are changes to the ECTAS standards, in best practice or in related legislation that determines an earlier review is required.	Kara Hannigan	2 years	

Appendix 1

Equality & Health Impact Assessment

Developing strategies, policies, plans and services that reflect our Mission of 'Caring for People, Keeping People Well'

Guidance

The University Health Board's (the UHB's) Strategy 'Shaping Our Future Wellbeing' (2015-2025) outlines how we will meet the health and care needs of our population, working with key partner organisations to deliver services that reflect the UHB's values. Our population has varied and diverse needs with some of our communities and population groups requiring additional consideration and support. With this in mind, when developing or reviewing any strategies, policies, plans, procedures or services it will be required that the following issues are explicitly included and addressed from the outset:-

- Equitable access to services
- Service delivery that addresses health inequalities
- Sustainability and how the UHB is meeting the requirements of the Well-being of Future Generations (Wales) Act (2015)⁴

This explicit consideration of the above will apply to strategies (e.g. Shaping Our Future Strategy, Estates Strategy), policies (e.g. catering policies, procurement policies), plans (e.g. Clinical Board operational plans, Diabetes Delivery Plan), procedures (for example Varicella Zoster - chickenpox/shingles - Infection Control Procedure) and services /activity (e.g. developing new clinical services, setting up a weight management service).

Considering and completing the Equality & Health Impact Assessment (EHIA) in parallel with development stages will ensure that all UHB strategies, policies, plans, procedures or services comply with relevant statutory obligations and responsibilities and at the same time takes forward the UHB's Vision, 'a person's chance of leading a healthy life is the same wherever they live and whoever they are'. This process should be proportionate but still provide helpful and robust information to support decision making. Where a more detailed consideration of an issue is required, the EHIA will identify if there is a need for a full impact assessment.

Some key statutory/mandatory requirements that strategies, policies, plans, procedures and services must reflect include:

- All Wales Standards for Communication and Information for People with Sensory Loss (2014)⁵
- Equality Act 2010⁶

⁴ <http://thewaleswewant.co.uk/about/well-being-future-generations-wales-act-2015>

⁵ <http://gov.wales/topics/health/publications/health/guidance/standards/?lang=en>

- Well-being of Future Generations (Wales) Act 2015⁷
- Social Services and Well-being (Wales) Act 2015⁸
- Health Impact Assessment (non statutory but good practice)⁹
- The Human Rights Act 1998¹⁰
- United Nations Convention on the Rights of the Child 1989¹¹
- United Nations Convention on Rights of Persons with Disabilities 2009¹²
- United Nations Principles for Older Persons 1991¹³
- Welsh Health Circular (2015) NHS Wales Infrastructure Investment Guidance¹⁴
- Welsh Government Health & Care Standards 2015¹⁵
- Welsh Language (Wales) Measure 2011¹⁶

This EHIA allows us to meet the requirements of the above as part of an integrated impact assessment method that brings together Equality Impact Assessment (EQIA) and Health Impact Assessment (HIA). A number of statutory /mandatory requirements will need to be included and failure to comply with these requirements, or demonstrate due regard, can expose the UHB to legal challenge or other forms of reproach. This means showing due regard to the need to:

- eliminate unlawful discrimination, harassment and victimisation;
- advance equality of opportunity between different groups; and
- foster good relations between different groups.

EQIAs assess whether a proposed policy, procedure, service change or plan will affect people differently on the basis of their 'protected characteristics' (i.e. their age, disability, gender reassignment, marriage or civil partnership, pregnancy or maternity, race, religion, sex or sexual orientation) and if it will affect their human rights. It also takes account of caring responsibilities and Welsh Language issues.

They provide a systematic way of ensuring that legal obligations are met and are a practical means of examining new and existing policies and practices to determine what impact they may have on equality for those affected by the outcomes.

HIAs assess the potential impact of any change or amendment to a policy, service, plan, procedure or programme on the health of the population and on the distribution of those effects within the population, particularly within vulnerable groups. HIAs help identify how people may be affected differently on the basis of where they live and potential impacts on health inequalities and health equity. HIA increases understanding of potential health impacts on those living in the most deprived communities, improves service delivery to

⁶ <https://www.gov.uk/guidance/equality-act-2010-guidance>

⁷ <http://gov.wales/topics/people-and-communities/people/future-generations-act/?lang=en>

⁸ <http://gov.wales/topics/health/socialcare/act/?lang=en>

⁹ <http://www.wales.nhs.uk/sites3/page.cfm?orgid=522&pid=63782>

¹⁰ <https://www.equalityhumanrights.com/en/human-rights/human-rights-act>

¹¹ <http://www.unicef.org/UNICEFs-Work/UN-Convention>

¹² <http://www.un.org/disabilities/convention/conventionfull.shtml>

¹³ <http://www.ohchr.org/EN/ProfessionalInterest/Pages/OlderPersons.aspx>

¹⁴ <http://www.wales.nhs.uk/sites3/Documents/254/WHC-2015-012%20-%20English%20Version.pdf>

¹⁵ <http://gov.wales/topics/health/publications/health/guidance/care-standards/?lang=en>

¹⁶ <http://www.legislation.gov.uk/mwa/2011/1/contents/enacted>

ensure that those with the greatest health needs receive a larger proportion of attention and highlights gaps and barriers in services.

The **EHIA** brings together both impact assessments in to a single tool and helps to assess the impact of the strategy, policy, plan, procedure and/or service. Using the EHIA from the outset and during development stages will help identify those most affected by the proposed revisions or changes and inform plans for engagement and co-production. Engaging with those most affected and co-producing any changes or revisions will result in a set of recommendations to mitigate negative, and enhance positive impacts. Throughout the assessment, 'health' is not restricted to medical conditions but includes the wide range of influences on people's well-being including, but not limited to, experience of discrimination, access to transport, education, housing quality and employment.

Throughout the development of the strategy, policy, plan, procedure or service, in addition to the questions in the EHIA, you are required to remember our values of *care, trust, respect, personal responsibility, integrity and kindness* and to take the Human Rights Act 1998 into account. All NHS organisations have a duty to act compatibly with and to respect, protect and fulfil the rights set out in the Human Rights Act. Further detail on the Act is available in Appendix 2.

Completion of the EHIA should be an iterative process and commenced as soon as you begin to develop a strategy, policy, plan, procedure and/or service proposal and used again as the work progresses to keep informing you of those most affected and to inform mitigating actions. It should be led by the individual responsible for the strategy, policy, plan, procedure and/or service and be completed with relevant others or as part of a facilitated session. Some useful tips are included in Appendix 3.

For further information or if you require support to facilitate a session, please contact Susan Toner, Principal Health Promotion Specialist (susan.toner@wales.nh.uk) or Keithley Wilkinson, Equality Manager (Keithley.wilkinson@wales.nhs.uk)

Based on

- Cardiff Council (2013) Statutory Screening Tool Guidance
- NHS Scotland (2011) Health Inequalities Impact Assessment: An approach to fair and effective policy making. Guidance, tools and templates¹⁷
- Wales Health Impact Assessment Support Unit (2012) Health Impact Assessment: A Practical Guide¹⁸

¹⁷ <http://www.healthscotland.com/uploads/documents/5563-HIIA%20-%20An%20approach%20to%20fair%20and%20effective%20policy%20making.pdf> (accessed 4 January 2016)

¹⁸ <http://www.wales.nhs.uk/sites3/page.cfm?orgid=522&pid=63782> (accessed on 4 January 2016)

Appendix 2 – The Human Rights Act 1998¹⁹

The Act sets out our human rights in a series of ‘Articles’. Each Article deals with a different right. These are all taken from the European Convention on Human Rights and are commonly known as ‘the Convention Rights’:

1. Article 2 Right to life. NHS examples: the protection and promotion of the safety and welfare of patients and staff
2. Article 3 Freedom from torture and inhuman or degrading treatment. NHS examples: issues of dignity and privacy, the protection and promotion of the safety and welfare of patients and staff, the treatment of vulnerable groups or groups that may experience social exclusion, for example, gypsies and travellers, issues of patient restraint and control
3. Article 4 Freedom from slavery and forced labour
4. Article 5 Right to liberty and security. NHS examples: issues of patient choice, control, empowerment and independence, issues of patient restraint and control
5. Article 6 Right to a fair trial
6. Article 7 No punishment without law
7. Article 8 Respect for your private and family life, home and correspondence. NHS examples: issues of dignity and privacy, the protection and promotion of the safety and welfare of patients and staff, the treatment of vulnerable groups or groups that may experience social exclusion, for example, gypsies and travellers, the right of a patient or employee to enjoy their family and/or private life
8. Article 9 Freedom of thought, belief and religion. NHS examples: the protection and promotion of the safety and welfare of patients and staff, the treatment of vulnerable groups or groups that may experience social exclusion, for example, gypsies and travellers
9. Article 10 Freedom of expression. NHS examples: the right to hold and express opinions and to receive and impart information and ideas to others, procedures around whistle-blowing when informing on improper practices of employers where it is a protected disclosure
10. Article 11 Freedom of assembly and association
11. Article 12 Right to marry and start a family
12. Article 14 Protection from discrimination in respect of these rights and freedoms. NHS examples: refusal of medical treatment to an older person
13. solely because of their age, patients presented with health options without the use of an interpreter to meet need, discrimination against UHB staff on the basis of their caring responsibilities at home
14. Protocol 1, Article 1 Right to peaceful enjoyment of your property
15. Protocol 1, Article 2 Right to education
16. Protocol 1, Article 3 Right to participate in free elections
17. Protocol 13, Article 1 Abolition of the death penalty

¹⁹ <https://www.equalityhumanrights.com/en/human-rights/human-rights-act>

Appendix 3

Tips

- Be clear about the policy or decision's rationale, objectives, delivery method and stakeholders.
- Work through the Toolkit early in the design and development stages and make use of it as the work progresses to inform you of those most affected and inform mitigating actions
- Allow adequate time to complete the Equality Health Impact Assessment
- Identify what data you already have and what are the gaps.
- Engage with stakeholders and those most affected early. View them as active partners rather than passive recipients of your services.
- Remember to consider the impact of your decisions on your staff as well as the public.
- Record which organisations and protected characteristic groups you engaged with, when you engaged with them and how you did so (for example, workshop, public meeting, written submission).
- Produce a summary table describing the issues affecting each protected group and what the potential mitigations are.
- Report on positive impacts as well as negative ones.
- Remember what the Equality Act says – how can this policy or decision help foster good relations between different groups?
- Do it with other people! Talk to colleagues, bounce ideas, seek views and opinions.