The **Regulation** and
Quality Improvement
Authority

Report on the Administration of Electroconvulsive Therapy in Northern Ireland

2015/2016

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Assurance, Challenge and Improvement in Health and Social Care

The Regulation and Quality Improvement Authority

The Regulation and Quality Improvement Authority (RQIA) is the independent body responsible for regulating and inspecting the quality and availability of health and social care services in Northern Ireland.

RQIA was established in 2005 as a non-departmental public body under The Health and Personal Social Services (Quality, Improvement and Regulation) (Northern Ireland) Order 2003 to drive continuous improvements in the quality of services, through a programme of inspections and reviews.

The Mental Health and Learning Disability team undertake a range of responsibilities for people with mental ill health and those with a learning disability under the Mental Health (Northern Ireland) Order 1986 as amended by the Health and Social Care Reform Act (Northern Ireland) 2009. This includes preventing ill treatment, remedying any deficiency in care or treatment or terminating improper detention in hospital or guardianship.

RQIA takes into consideration relevant standards and guidelines, the views of the public, health care experts and current research, in any review of services provided. We highlight areas of good practice and make recommendations for improvements and report on our findings on our website at www.rqia.org.uk.

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Glossary

Anterograde Amnesia	The loss or partial loss of the ability to create new memories after the event that caused the amnesia.
Bilateral ECT	The two electrodes are placed across the temporal region of the head, one on either side.
Consultant Psychiatrist	A medical practitioner appointed to consultant grade who specialises in the diagnosis and treatment of mental disorders.
Depressive Disorders	A disorder characterised by an all-encompassing low mood accompanied by loss of interest in normally enjoyable activities, loss of weight and poor sleep and other symptoms.
Detained Patient	A detained patient is a person who has been admitted to hospital for assessment on grounds specified in the Mental Health (Northern Ireland) Order 1986, (a)suffering from mental disorder of a nature or degree which warrants his detention in a hospital; (b) failure to detain him would create a substantial likelihood of serious harm to himself or to other persons
Electroconvulsive Therapy	A form of medical treatment for certain psychiatric disorders in which seizures are induced by passing electricity through the brain of an anesthetised patient (generally used as a treatment for severe depression).
Part II Medical Practitioner	Consultant psychiatrist appointed by RQIA for the purposes of Part II of the Mental Health (Northern Ireland) Order 1986
Second Opinion Appointed Doctor (SOAD)	Consultant psychiatrist appointed by RQIA for the purposes of Part IV of the Mental Health (Northern Ireland) Order 1986

Responsible Medical Officer	The consultant psychiatrist (usually a Part II medical practitioner) in charge of the patient's assessment or treatment.
Retrograde Amnesia	The loss or partial loss of memories that existed before the event that caused the amnesia.
Unilateral ECT	The two electrodes are placed on one side of the head only.
Voluntary Patient	A voluntary patient is a person who voluntarily remains in a mental health facility for treatment, care or observation and has the same rights as people receiving treatment for physical illness

Executive Summary

Electroconvulsive therapy (ECT) is considered an important and necessary form of treatment for some of the most severe psychiatric conditions and is, in many instances, a life-saving treatment, particularly for patients with severe depression.

This report provides findings on the administration of electroconvulsive therapy by the five health and social care trusts (HSC) in Northern Ireland, from 1 April 2013 to 31 March 2016. Similar information has been collated since March 2010 and can be found at www.rqia.org.uk.

A total of 121 patients received ECT from 1 April 2015 to 31 March 2016; an increase of 21% compared to the previous year.

When converted into the rate of persons receiving ECT per 100,000 of the population, in a given year for the population of Northern Ireland, the following approximate rates are obtained: 8.68 per 100,000 in 2013/14 and 5.21 per 100,000 in 2014/15 and 6.53 per 100,000 in 2015/2016.

Severe depression continues to be the diagnostic group which requires the majority of courses of ECT.

Overall 66% of patients receiving ECT were female. A course of ECT ranged from 1 to 12 treatments. A small minority of patients had more than one course within the timescale of one year.

Treatment with ECT requires, where possible, valid consent from the patient. Every effort is made to assist patients in this decision-making process. The number of courses of ECT administered to patients on a voluntary basis was 67% during 2015/16, resulting in 33% receiving ECT on a detained basis.

Overall, the small number of patients receiving ECT on an outpatient basis varied between trusts and has declined over the three year period. Some patients who commenced ECT as an inpatient completed their course as an outpatient.

The Royal College of Psychiatrists has promoted the ECT Accreditation Service, known as ECTAS. Holywell Hospital (NHSCT) and Downe Hospital (SEHSCT) have received accreditation from ECTAS, which is voluntary and subject to peer review.

A questionnaire on the Patient Experience of ECT continues to be given to patients, by the trust, following their ECT treatment. The majority of patients who have returned the questionnaire comment positively on the quality of care they received. A trainee in psychiatry, in conjunction with RQIA, collated the questionnaire responses and compiled a paper “Electroconvulsive Therapy –

What Do Patients Think of Their Treatment?"[1] This was published in the Ulster Medical Journal in September 2016.

RQIA would like to thank all staff involved in returning information on ECT. We will continue to monitor the administration of this treatment and will report on our findings in 2016/17.

[1] Ulster Medical Journal 2016: 85 (3): 182-186

1.0 Introduction

Electroconvulsive therapy is considered an important and necessary treatment for various serious psychiatric conditions, most commonly for severe depression.

Surveys in England have demonstrated a steady decline in the use of ECT since 1985[2]. The availability of a greater variety of safe alternative anti-depressants and other therapies are amongst the possible explanations for this downward trend.

There is robust scientific evidence that ECT is medically safe and effective[3]. Many patients receiving ECT do so voluntarily and provide fully informed consent, based on an understanding of the treatment, the reasons why it is being offered and the possible risks and side effects.
In cases where this is not possible the opinion of a second opinion appointed doctor (SOAD) is sought from RQIA. Second opinion appointed doctors are consultant psychiatrists, appointed by RQIA, to give second opinions in relation to the administration of ECT and Treatment Plans.

This is the sixth report on the use of ECT[4] in mental health and learning disability hospitals in Northern Ireland by the MHLD Directorate. It provides an overview of the use of ECT from 1 April 2013 to 31 March 2016 using information made available by the trusts. Information on the use of ECT from 1 April 2010 to 31 March 2013 is available www.rqia.org.uk

2.0 Purpose of Review of ECT

RQIA agreed that a baseline position on the administration of ECT in Northern Ireland, from the analysis of the quarterly returns from the trusts, would provide relevant information in respect of trends in the use of ECT. This information highlights any issues which require to be monitored in the future.

Reviews of ECT have been undertaken by the Irish Mental Health Commission[5], the ECT Accreditation Service[6] in England and Wales and by the Scottish Electroconvulsive Therapy accreditation network (SEAN)[7]. This allows for some comparison of data in the administration of ECT across these jurisdictions.

[2] Trends in the Administration of ECT in England – Bickerton et al, The Psychiatrist, (2009) 33,61-63
[3] The college of psychiatry of Ireland Electroconvulsive Therapy Position Statement EAPO1/2011
[4] www.rqia.org.uk
[5] The Administration of Electroconvulsive Therapy in Approved Centres: Activity Report 2014/15
[6] http://www.rcpsych.ac.uk/pdf/ECTAS%20Minimum%20Dataset%20Report%202012-13.pdf
[7] Scottish ECT Accreditation Network Annual Report 2016

3.0 Information about the Administration of Electroconvulsive Therapy

Electroconvulsive therapy is a medical procedure in which an electric current is passed briefly through the brain, via electrodes applied to the scalp, to induce generalised seizure activity. The person receiving the treatment is placed under general anaesthetic and muscle relaxants are given to prevent muscle spasms. Repeated treatments induce several molecular and cellular changes in the brain that are believed to stimulate antidepressant mechanisms. Normally ECT is given twice a week up to a maximum of 12 treatments per course of ECT.

Electroconvulsive therapy is usually provided to patients who have not responded to other treatments and for whom there are no other effective treatments. It is often considered to be a life-saving treatment for those who are actively suicidal or refusing food and fluids, or who are physically debilitated by depression. Guidelines produced by NICE[8] advise that ECT should be used when other treatments have failed, or in emergency situations.

Depressive disorder continues to be the diagnostic group which requires the majority of ECT courses. ECT is also very occasionally used in the management of treatment resistant mania and schizoaffective disorder.

4.0 Issues Regarding Consent

When ECT is proposed as being the most appropriate treatment, patients, whether voluntary or detained, are asked to give their informed consent. In the case of a detained patient, able to give valid consent to ECT, the responsible medical officer (RMO) for the patient must validate this consent. A Form 22 must be signed; indicating consent has been given, and returned to RQIA. Patients who cannot give informed consent to ECT are protected under the Mental Health (Northern Ireland) Order 1986 (the Order).

Under Article 64 of the Order, informed consent for ECT must be obtained, or, in the case of those patients who are not capable of giving informed consent, an independent opinion is sought from an Second Opinion Appointed Doctor (SOAD) regarding the appropriateness of a course of ECT.

5.0 Procedure for Seeking a Second Opinion for ECT

All second opinions for ECT must be arranged through RQIA. The referring consultant contacts RQIA to request a second opinion on their proposed treatment plan to administer ECT. RQIA currently hold a list of 9 approved Second Opinion Appointed Doctors (SOADs).

A SOAD who is available to take on the case is required to visit and interview

[8] http://www.nice.org.uk/TA59

the patient, review the entire case history, discuss the treatment options with the referring consultant and provide an opinion on whether or not the treatment plan to administer ECT is appropriate. If the SOAD agrees with the treatment plan, their decision is recorded on a Form 23.
If the SOAD disagrees with the plan to administer ECT, he/she will discuss their reasons and other treatment options with the referring consultant. In this case the treatment plan to administer ECT will not proceed.

5.1 Timelines for Requesting a Second Opinion

The timeline for the second opinion is determined by the referring consultant and relates to the urgency of the situation and the timing of the next ECT session. The timeline between referral and the SOAD seeing the patient is normally between one and seven days.

5.2 Emergency Treatment with ECT

The referring consultant has the option of giving one emergency treatment before the second opinion takes place, if treatment is deemed to be urgent, or if the SOAD is unable to see the patient before the next session of ECT.

6.0 ECT Accreditation Service

The voluntary ECT Accreditation Service (ECTAS)[9] is an initiative of the College Centre for Quality Improvement launched through the Royal College of Psychiatrists in 2003. The purpose of ECTAS is to assure and improve the quality of the administration of ECT. It engages staff in a comprehensive process of review, through which good practice and high quality care are recognised and services are supported to identify and address areas for improvement. Accreditation assures staff, service users, and referrers, commissioners and regulators of the quality of services being provided. Over 78% of ECT clinics in England and Wales participate in this accreditation programme and there are also members in Northern Ireland and the Republic of Ireland. It provides a peer review visit which will result in the Accreditation Committee awarding accreditation if the ECT service reaches the required standards. Accreditation is valid for three years, subject to the satisfactory completion of an interim self- review.

In Northern Ireland, ECT is available across all of the trusts. The facilities where it is administered are located in particular hospitals in each trust, as detailed in Table 1.

[9] http://www.ectas.org.uk

Table 1 - List of Hospitals in Northern Ireland and their Accreditation Status with ECTAS.

Trust	ECT Clinic	Status
Belfast Health and Social Care Trust	Mater Hospital, Belfast	Currently in review
Northern Health and Social Care Trust	Holywell Hospital, Co Antrim	Accredited to Feb 2018 (Excellent)
Southern Health and Social Care Trust	Craigavon Area Hospital, Craigavon	Not a member
South Eastern Health and Social Care Trust	Downe Hospital, Downpatrick	Accredited to Feb 2018
Western Health and Social Care Trust	Tyrone County Hospital, Omagh	Not a member
	Altnagelvin Hospital, Londonderry	Not a member

6.1 Northern Ireland Regional Forum for ECT

A multidisciplinary Forum was established in Northern Ireland several years ago to improve the standard of administration of ECT. Representatives from all the trusts meet quarterly to discuss issues and agree standards which they base on those of ECTAS and the Scottish Electroconvulsive therapy Accreditation Network (SEAN)[10].

7.0 Data Limitations

RQIA accept the data returned by trusts. Any inaccuracies or inconsistencies in the reporting of data by the trusts will affect the accuracy of the figures contained in this report.

7.1 Data Returns

The data for the years 2013-2016 were returned to RQIA via an online template developed by RQIA in conjunction with trust ECT leads. This recorded courses of ECT for patients for each quarter and included information on diagnosis, indications for ECT and the outcome of ECT treatment using the Clinical Global Impression (CGI) scores. The Clinical Global Impression scoring system uses a 7 point scale assessing how much the patient's illness has improved or worsened ranging from "very much improved to very much worse"[11].

[10] Scottish Electroconvulsive Therapy (ECT) Accreditation Network (SEAN)
[11] http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2880930/

7.2 Comparative Data 2013-2016

The following results present some comparative data in relation to the number of patients receiving ECT between 2013 and 2016 and additional data in respect of the number of courses of ECT received by patients during the 2013- 2016 period.

The number of treatments administered within a course of ECT treatment varies depending on the clinical state of the patient. The maximum number of treatments in a course is 12.

The collation of the data is complicated by the fact that a patient could have had both detained and voluntary status during a course of ECT. For the purpose of this report, a patient who had both detained and voluntary status during a course of ECT was counted within the detained group only, to avoid them being counted twice.

8.0 Findings

Graph 1 demonstrates some fluctuation in the number of second opinions required during the period 1 April 2013 to 31 March 2016.
The number of patients receiving ECT has fluctuated over the last three years.

Graph 1 – Second Opinions for ECT

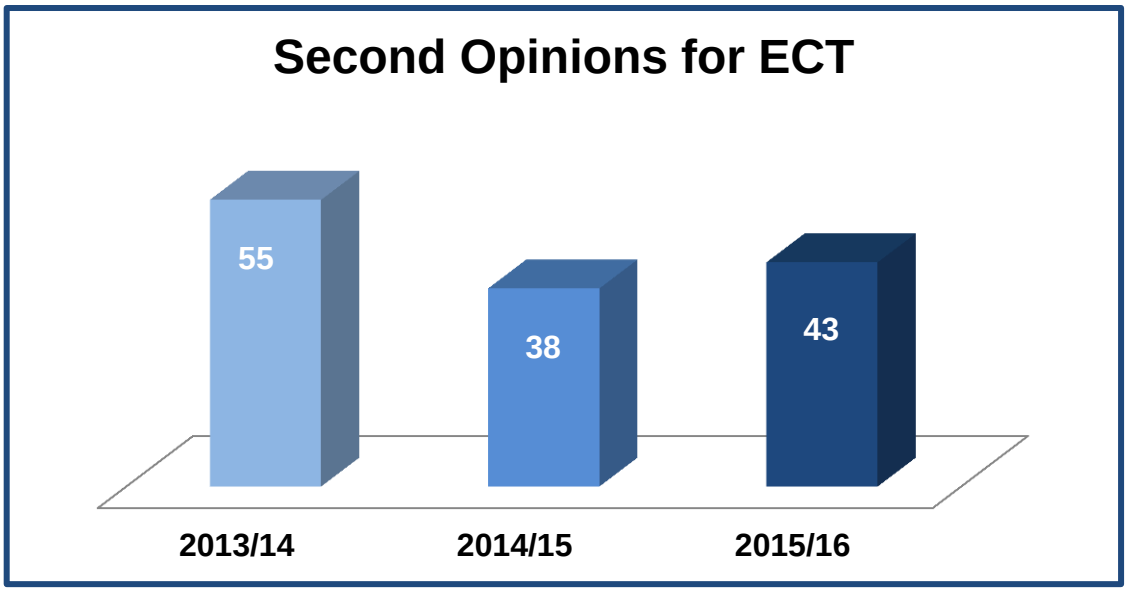


Table 2 – Number of Patients Receiving ECT by Trust from 2013 - 2016

	2013/14	2014/15	2015/16
BHSCT	32	20	23
NHSCT	42	26	29
SHSCT	42	16	18
SEHSCT	17	21	28
WHSCT	26	13	23
Total	**159**	**96**	**121**

8.1 ECT Administration to Voluntary and Detained Patients

The majority of patients receiving ECT are voluntary patients who have been assessed as being able to give their own valid consent to ECT. Table 3 details the number of voluntary and detained courses of ECT by Trust in the period 2013 – 2016. The overall percentage of courses of ECT administered to patients on a detained basis during this period is 35%.

Table 3 - Number of Courses of ECT administered on a Voluntary and Detained basis per Trust for 2013/14, 2014/15 and 2015/16

	2013/14			2014/15			2015/16		
	Vol	**Detained**	**Total**	**Vol**	**Detained**	**Total**	**Vol**	**Detained**	**Total**
BHSCT	19	19	38	13	9	22	15	10	25
NHSCT	34	13	47	22	7	29	30	5	35
SHSCT	37	10	47	12	4	16	15	4	19
SEHSCT	9	9	18	9	12	21	16	17	33
WHSCT	21	11	32	6	7	13	18	7	25
Total	**120**	**62**	**182**	**62**	**39**	**101**	**94**	**43**	**137**

Comparing the number of course of ECT administered to detained patients, a higher number of courses were administered to patients who had detained status in 2013/14. Similar percentages of the courses of ECT were administered to detained patients; 34%, 39%, and 31% respectively.

Generally, it is found that female patients outnumber male patients receiving treatment with ECT. Graph 3 demonstrates administration of ECT by gender, 66% of patients receiving ECT are female (34% male) during the period 2015-2016.

Graph 3 - Number of Male and Female Patients Receiving ECT by Trust 2015/16

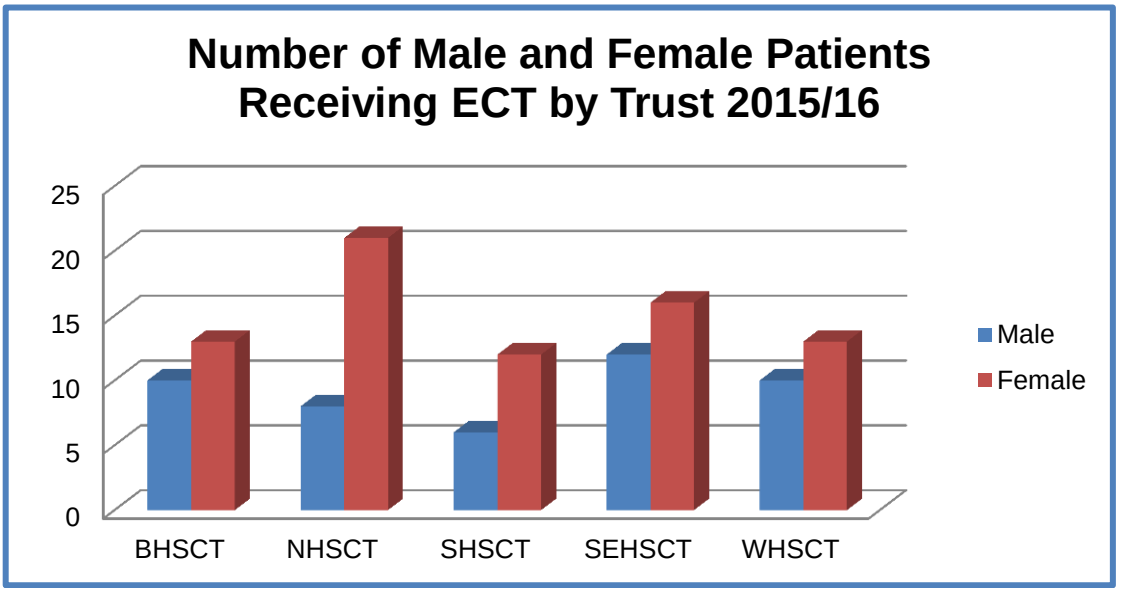


Table 4 - Number of Outpatients by Trust

	2013/14	2014/15	2015/16
BHSCT	0	5	2
NHSCT	23	13	10
SHSCT	9	2	3
SEHSCT	2	0	1
WHSCT	0	0	0
Total	**34**	**20**	**16**

The practice of using ECT on an outpatient basis varied between trusts. Some patients started their course of ECT as an inpatient and completed their treatment on an outpatient basis.

8.2 Mode of Administration of ECT by Trusts

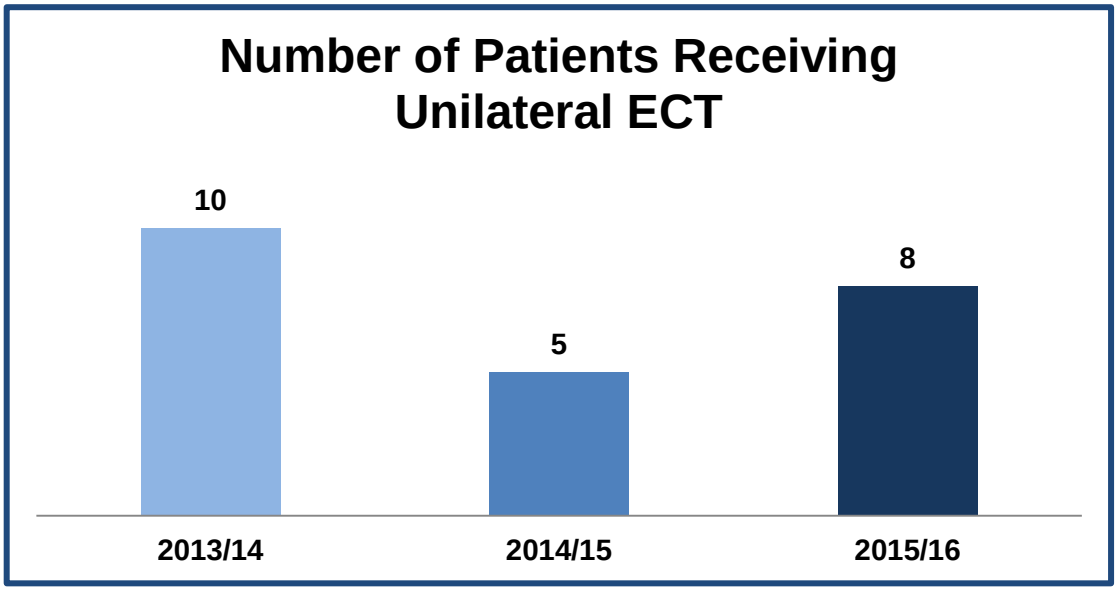
It is accepted that ECT can cause temporary anterograde and retrograde amnesia which is monitored pre and post treatment within the care pathway. Whether ECT causes longer term memory problems is controversial[12]. It is often difficult to differentiate the memory difficulties due to ECT from the memory difficulties associated with the underlying psychiatric conditions of the patient.

Current research is clarifying the possibility and nature of more persistent memory loss[13]. Bilateral ECT seems to work more quickly and effectively but may cause more side effects. Unilateral ECT has fewer side effects, may not be as effective and is more difficult to administer properly.

The decision about whether treatment is administered using bilateral or unilateral electrode placement will depend on a number of factors, but is mostly dependent on the desire to lessen the cognitive side effects.

Graph 4 - Number of patients receiving unilateral ECT from 2013-16

Graph 4 identifies the number of patients receiving unilateral ECT and indicates that the vast majority of patients since 2013 received bilateral ECT. Patients may receive both unilateral and bilateral ECT during a course of ECT for clinical reasons



[12] Macqueen et al. The long-term impact of treatment with electroconvulsive therapy on discrete memory systems in patients with bipolar disorder. J Psychiatry Neurosci. 2007; Jul; 32(4): 241-249

[13] How Specialist ECT Consultants inform patients about memory loss", Hanna et al, The Psychiatrist 2009, 33,412-415

9.0 ICD 10 Category for Patients receiving a Course of ECT from 2013-16

The majority of patients had diagnoses of severe depressive episode with or without psychotic symptoms (F32.3 and F32.2 respectively). The second most common diagnosis was recurrent depressive episode with psychotic symptoms (F33.3).

Table 5 – Percentage of Episodes of ECT with ICD10 Diagnosis

ICD10	2013/14	2014/15	2015/16
F06	0%	0%	2%
F20	2%	5%	7%
F25	5.50%	8%	4%
F31	5.50%	10%	9%
F32	58%	52%	52%
F33	25%	23%	20%
F34	0%	0%	1%
F41	1%	0%	2%
F43	0.50%	0%	0%
F53	0.50%	0%	0%
F60	2%	2%	0%
Not Completed	0%	0%	3%

F06 Other mental disorders due to brain damage and dysfunction and to physical disease
F20 Schizophrenia
F25 Schizoaffective Disorders
F31 Bipolar Affective Disorder
F32 Depressive Episode
F33 Recurrent Depressive Disorder
F34 Persistent Mood (Affective) Disorders
F41 Other anxiety disorders
F43 Reaction to severe stress, adjustment disorders
F53 Mental and behavioural disorders associated with the puerperium
F60 Specific personality disorders

10.0 Reasons for the Administration of a Course of ECT from 1 April 2013 – 31 March 2016.

The most common primary indication for the administration of ECT was reported as the severity of the mental state of the patient, followed by inadequate eating or drinking and refractoriness to medication in that order.

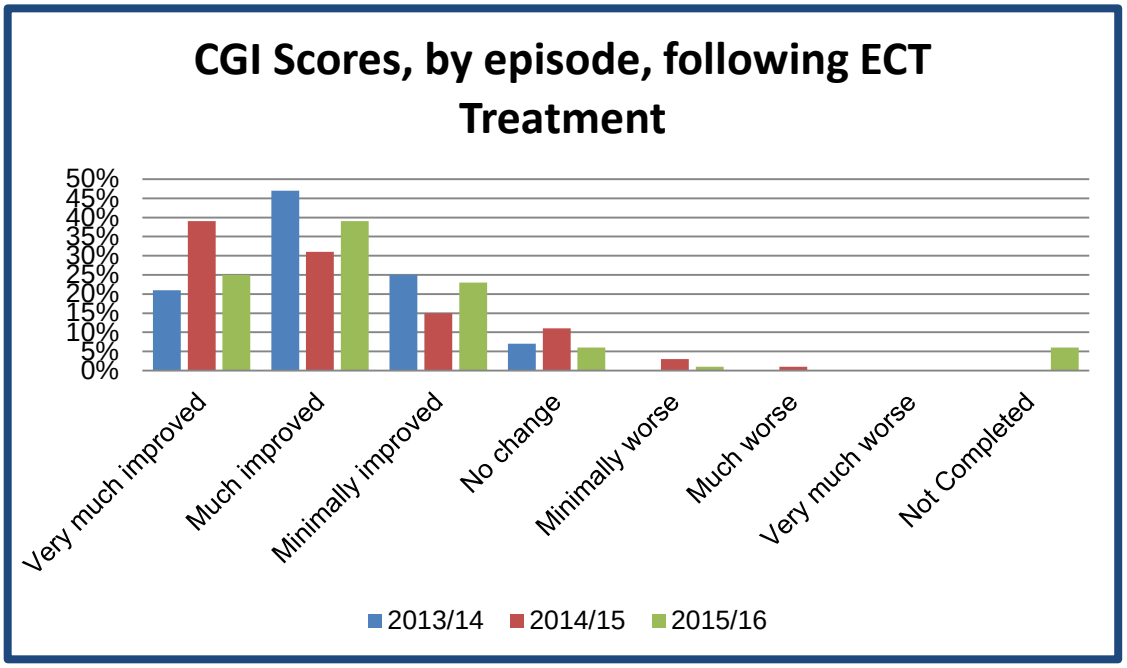
11.0 Emergency ECT

The consultant psychiatrist has the option to give one emergency ECT prior to the second opinion, in urgent cases or where there is an unavoidable delay in providing the second opinion. Emergency ECT was given on 10 occasions within the period of 1 April 2014 and 31 March 2016.

12.0 Clinical Global Impression Scores

The Clinical Global Impression scores in 2013/14, 2014/15 and 2015/16 reveal that 68%, 70% and 64% respectively of the courses of ECT are rated in the categories “very much improved” and “much improved”. Overall, 93%, 85% and 87% of courses in 2013/14, 2014/15 and 2015/16 respectively show some improvement which is encouraging. A small number of courses each year are deemed to not have shown any change. Four episodes of treatment were rated in the “much worse” category during 2014/15

Graph 5 – CGI Scores, by episode, following ECT Treatment 2013-16



13.0 Use of ECT Care Pathway by Trust

A care pathway for ECT is used for the majority of patients. The layout of the care pathway varies between trusts. This will be reviewed at future inspection of ECT suites.

14.0 Rate of Administration of ECT per 100,000 of the Catchment Population

The approximate rate of administration of ECT per 100,000 of catchment

population has been calculated and presented below using 2015 Mid-Year Population Estimates for Health and Social Care Trusts from the Northern Ireland Research and Statistics Agency's (NISRA)[14] 2015 report.

Table 6 – Summary of the Rate of Administration of ECT to Patients per 100,000 of Catchment Population by Trust for 2013-2016

	2013/14	2014/15	2015/16
BHSCT	9	6	6
NHSCT	9	5	6
SHSCT	11	4	5
SEHSCT	5	6	8
WHSCT	9	4	8
Total	**8.68**	**5.21**	**6.53**

Table 6 demonstrates a variation in the rate of the administration of ECT across the five trusts. A number of reasons may account for this variation.

As with admissions to psychiatric facilities, there is a natural variation from year to year. The number of patients receiving ECT also depends on consultant psychiatrists' choice of treatment and some may favour combinations of medication over ECT. In respect of some patients with severe depression, treatment with ECT can bring about improvement in their mental state within a month of starting their course, whereas drug therapy may require a high dosage or a combination of drugs given over several months to effect improvement.
These factors may be extremely important in the management of an individual patient's illness when weighing up the risks and benefits of different treatments. It should also be borne in mind when considering the disparity in these rates of administration of ECT that both under-use and over-use of treatment is undesirable.

15.0 Comparisons with Other Jurisdictions

The Irish Mental Health Commission[15] reported that 243 individual patients received 308 programmes of ECT during 2015. This represents a rate of 5.19 people per 100,000 population receiving ECT and a rate of 6.57 programmes

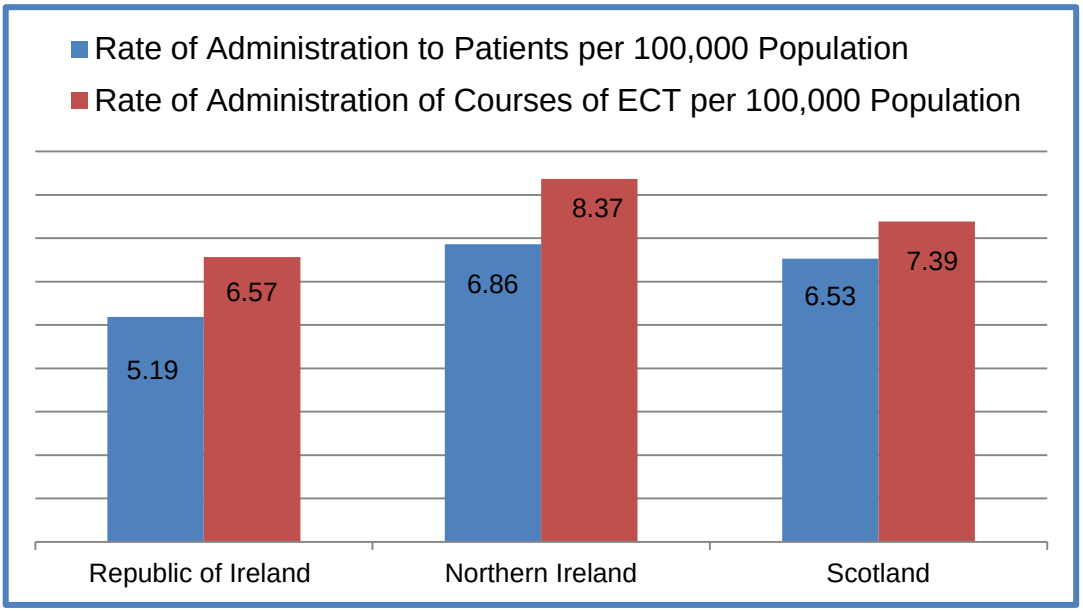
[14] www.nisra.gov.uk/demography

[15] http://www.mhcirl.ie/File/The-Administration-of-ECT-in-Approved-Centres-Activity-Report-2012.pdf

of ECT per 100,000 population (based on a population of 4,681,815 in 2015).

The Scottish ECT Accreditation Network Annual Report 2016[16] reported that 367 individual patients received 448 episodes of ECT during 2015. This represents a rate of 6.86 people per 100,000 population receiving ECT and a rate of 8.37 episodes of ECT per 100,000 population (based on a population of 5,347,600).
ECTAS published a report in September 2015 "ECT Minimum Dataset Activity Report 2014/15 for England, Wales, N Ireland and Republic of Ireland[17]. It reports figures compiled from a national survey of ECT in 2014/15 of 91 clinics providing ECT. The 91 clinics represented a response rate of 76% of clinics nationally. 1969 people were treated with ECT and 2148 acute courses of ECT were administered. 155 people were receiving maintenance ECT in March 2015. The report did not detail a rate per 100,000 of the population or draw any direct conclusions for comparison with other regions due to the nature of the survey.

Graph 6 - A comparison of the Rate of Administration of ECT to Patients across Jurisdictions



The above graph shows very little variation in the rates of administration of ECT to patients across these jurisdictions.

[16] http://www.sean.org.uk/docs/SEAN-Report-2015-web.pdf
[17] http://www.rcpsych.ac.uk/pdf/ECTAS%20Minimum%20Dataset%20Activity%20Report%20Ireland.pdf

16.0 Conclusion

There has been an increase in the number of courses of ECT, administered to both voluntary and detained patients, across the trusts in Northern Ireland during 2015/16.

More women than men received ECT (66% vs.34%) and the majority of patients were able to give valid consent to ECT.

The majority of ECT involved the bilateral placement of electrodes.

The CGI scores reveal that a high percentage of patients derive benefit from ECT.

17.0 Next Steps

The MHLD Team will:

- Share this ECT report with the Clinical Directors and Clinical Leads of each trust to inform them about current trends in the administration of ECT.
- Encourage the ECT suites not accredited by ECTAS to seek accreditation.
- Continue to review the number of SOADs available to provide second opinions on ECT and encourage consultant psychiatrists to apply for appointment to RQIA's list of SOADs.
- Request trusts to continue to provide Patient Experience Questionnaires to all patients receiving ECT in order that RQIA can continue to monitor, review and report on the quality of the patient experience.
- Review and provide a report on the administration of ECT in 2016/17.

Dr Shelagh-Mary Rea
Sessional Medical Officer

November 2016

The **Regulation** and
Quality Improvement
Authority

The Regulation and Quality Improvement Authority
9th Floor
Riverside Tower
5 Lanyon Place
BELFAST
BT1 3BT

Tel 028 9051 7500
Fax 028 9051 7501
Email info@rqia.org.uk
Web www.rqia.org.uk
@RQIANews