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Psychology and Psychotherapy: Theory, Research and Practice (2021), 94, 603–619

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A second independent audit of electroconvulsive therapy in England, 2019: Usage, demographics, consent, and adherence to guidelines and legislation

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Objectives. To assess progress towards improving the administering of electroconvulsive therapy (ECT) in England since an audit covering 2011, 2013, and 2015. The same information was gathered, for 2019, on usage, demographics, consent, and adherence to national guidelines and the Mental Health Act.

Design and Methods. Freedom of Information Act requests were sent to 56 National Health Service Trusts.

Results. Thirty-seven trusts (66%) provided data. The gradual decline in the use of ECT in England has levelled off at about 2,500 people per year. There was a 47-fold difference between the Trusts with the highest and lowest rates per capita. Most recipients are still women (67%) and over 60 (58%). Only one Trust could report how many people received psychological therapy prior to ECT, as required by government (NICE) guidelines. More than a third of ECT (37%) is still given without consent, with 18% of Trusts non-compliant with legislation concerning second opinions. There were slight declines, compared to a previous audit, in the use of standardized depression scales, down to 30%, and standardized measures of cognitive dysfunction, down to 24%. Only six Trusts provided any data for positive outcomes and seven for adverse effects. None provided data on efficacy or adverse effects beyond the end of treatment. Twelve Trusts used identical sentences to each other, verbatim, in response to one or more questions.

Conclusions. Given the apparent failure of current monitoring and accrediting of ECT clinics in England, by the Royal College of Psychiatrists' ECT Accreditation Service (ECTAS), an independent government sponsored review is urgently needed.

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DOI:10.1111/papt.12335

Practitioner points

- Psychologists and other mental health staff should ensure that people are offered evidence-based psychological treatments before being offered E.C.T.
- All staff should ensure that patients are fully informed of the high risk of memory loss and the smaller risk of cardiovascular failure and mortality.
- Individuals receiving ECT should be closely monitored for adverse cognitive effects, and treatment immediately terminated if these become apparent.
- Because of increased risk of memory loss for women and older people, the use of ECT should be kept to a minimum and avoided where possible, with these two groups.

Electroconvulsive therapy (ECT) involves the passing of sufficient electricity through the brain, an average of ten times, over a period of about 3 weeks (Buley, Copland, & Hodge, 2017), to cause a seizure. It remains a controversial psychiatric treatment. Five meta-analyses of research into ECT for depression claim that ECT is effective. A recent review (Read, Kirsch, & McGrath, 2019) found, however, that these meta-analyses had relied on between just one (Mutz et al., 2019) and seven (Pagnin, de Queiroz, Pini, & Cassano, 2004) of 11 studies and paid little attention to the poor quality of these studies, all of which were pre-1986. None of the five meta-analyses identified any studies showing long-term benefits. The review's conclusion that there is no evidence ECT prevents suicide, as often claimed, was subsequently confirmed by a study of 14,810 ECT patients and 58,369 controls (Peltzman, Shiner, & Watts, 2020). The review concluded:

> Given the high risk of permanent memory loss and the small mortality risk, this longstanding failure to determine whether or not ECT works means that its use should be immediately suspended until a series of well designed, randomized, placebo-controlled studies have investigated whether there really are any significant benefits against which the proven significant risks can be weighed. (Read et al., 2019).

ECT also remains controversial because of the adverse effects. There is disagreement about what the actual mortality rate is (Read, Bentall, Johnstone, Fosse, & Bracken, 2013; Read et al., 2019). There is reasonable agreement, however, that the leading cause of death is cardiovascular failure. A recent review of 82 studies found that one in 50 patients experience 'major adverse cardiac events' (Duma et al., 2019).

Estimates of persistent or permanent memory loss range from 12% (Sackeim et al., 2007) to 55% (Rose, Fleischmann, Wykes, Leese, & Bindman, 2003), with higher rates among women and older people (Sackeim et al., 2007). There is important anecdotal evidence that some people find ECT very helpful. There are also hundreds of personal accounts online of incapacitating levels of disruption to people's lives. For example: https://ectjustice.com/ect-survivor-stories/ and https://www.madinamerica.com/2016/04/comments-by-shock-survivors-and-their-loved-ones/. One example is on Medscape (an online resource for physicians), amid a discussion in which the 2019 Read et al review was strongly disputed:

> My long-term memory was destroyed. Memories of childhood friends, memories of major events I attended, memories of my training as a psychiatric registrar, academic memories etc. I started struggling with simple spelling and calculations. I basically cannot recall an almost entire 3 years (2004-2006), including the relationship I was in at the time. I never told colleagues about this, as I felt ashamed. But I started talking to other people who had ECT and realized I am not alone'. (Brink, 2020).

A manufacturer of ECT machines, Somatics, recently added 'permanent brain damage' to its list of risks (Schwartzkopff, 2018; Somatics, 2018, p. 4).

Controversy can also be found about whether the frequent use of compulsion is ethical or effective (Breggin, 2008; Read et al., 2013, 2019). The current audit specifically addresses the fact that in England the Mental Health Act requires that, for patients deemed incapable of giving consent, the SOAD ('second opinion appointed doctor') must consult two other persons, one of which must be a nurse and the other someone 'who is neither a nurse nor a registered medical practitioner' (Department of Health & Ministry of Justice, 2009).

Some consider ECT the treatment of choice for several disorders. Others argue it should never be used. The UK government guidelines (National Institute of Clinical and Health Excellence, 2017) state:

> Consider ECT for acute treatment of severe depression that is life-threatening and when a rapid response is required, or when other treatments have failed.
>
> Do not use ECT routinely for people with moderate depression but consider it if their depression has not responded to multiple drug treatments and psychological treatment.

Perhaps all these diverse views about ECT explain why a review of 70 studies found 'large variation between continent, countries and regions in utilization, rates and clinical practice' (Leiknes, Jarosh-von Schweder, & Hoie, 2012, p. 296). A recent audit found a 12-fold difference in usage per capita between the highest and lowest using regions of England (Read, Harrop, Geekie, & Renton, 2018), rendering the chances of people getting ECT a geographical lottery, apparently dependent on the preferences of individual psychiatrists. What is consistent, almost everywhere, is that twice as many women as men receive ECT and that the average age is between 60 and 64.

The focus of the current paper is how ECT is administered and monitored. Many countries, including the United States, have no national monitoring process. In England, the Department of Health (2003) stopped publishing annual audits nearly 20 years ago. Since then, the only monitoring has been by the ECT Accreditation Service (ECTAS) which is run by the Royal College of Psychiatrists (RCPsych). Since 2012/2013, ECTAS has also published some national surveys of ECT.

Our previous independent audit (Read et al., 2018) covered three discrete years (2011, 2013, and 2015). The current audit, for 2019, asked the same questions (see Table 1), except for omitting a question about diagnoses in the hope of increasing the return rate (57.1%) by asking fewer questions.

Table 1. Questions in freedom of information request to 56 NHS Trusts

How many patients in total received ECT in 2019?
How many of these were female?
How many of these were over 60?
How many of these were under 18?
How many patients received ECT without receiving a NICE recommended psychological therapy?
What measures of clinical outcome were used for patients who received ECT and what were the results?
What measures of adverse effects for patients who received ECT were used, and what were the results?
How many patients were given ECT without consent?
Which professions did the SOAD consult for patients who did not consent?

Methods

As for the previous audit (Read et al., 2018) ethical approval was unnecessary as this was also an audit, involving no interaction with, or information about, individual patients.

In June 2020, a Freedom of Information (FOI) Act request was sent to all 56 National Health Service (NHS) Trusts in England providing mental health services. The FOI Act entitles anyone to request information from public sector bodies, which may refuse to comply if the cost would exceed £450. Several Trusts said, when declining to answer some questions, that this represents one person spending 2.5 days locating, retrieving, and extracting the information.

Participants

Thirty-seven of the 56 Trusts (66.1%) responded with usable data. The number replying to specific questions ranged from 37 to three.

Data analysis

The data are presented primarily in descriptive format. *t*-Tests and Pearson correlation coefficients were used to compare some of the findings of the current audit with the previous audit (Read et al., 2018).

Results

The number of people given ECT in 2019, in the 37 Trusts, was 1,964, ranging from 14 (Camden & Islington) and 16 (Gloucestershire) to 143 (Sussex) and 169 (Avon & Wiltshire), with a mean of 53.1 (SD = 35.8).

The number of people per 100,000 population ranged from 0.2 (Mersey Care) and 0.8 (North West Boroughs) to 9.4 (Avon & Wiltshire, and North Staffordshire), with a mean of 4.5 (SD = 2.6), representing a 47-fold difference between highest and lowest. Other Trusts with per capita rates more than one standard deviation above the mean were as follows: Nottinghamshire (9.0), Greater Manchester (8.7), Leeds & York. (8.6), and Coventry & Warwickshire (8.1).

Age and gender

Four of the 35 Trusts answering the relevant question (11.4%) had given ECT to a child (under 18): Avon & Wiltshire; Barnet, Enfield & Haringey; Oxford Health; and Southern Health.

In the 33 Trusts that answered the question, 58.0% of ECT recipients were over 60 (919/1585). Trusts varied from 25.0% (Derbyshire) to 82.1% (Leeds & York) and 88.9% (Mersey Care). For 24 of the 33 Trusts (72.7%), at least half of the people were over 60.

In the 35 Trusts reporting gender, 66.7% of ECT recipients were women (1200/1799). Trusts varied from 38.5% (West London) to 85.7% (Camden & Islington) and 88.0% (Rotherham, Doncaster & South Humber). In 33 of the 35 Trusts, the majority of ECT recipients were female. In 20 of the 35 Trusts (57.1%), twice as many women received ECT as men. In three Trusts (8.6%), four times as many women received ECT.

Psychological therapy

Only three of the 37 Trusts (8.1%) responded to the question about how many people had ECT 'without receiving a NICE recommended psychological therapy?' Only Oxleas actually answered the question, with a number. Three out of 32 ECT recipients had not received psychological therapy. Cheshire & Wirral wrote 'none if it was an appropriate treatment', without indicating how many people therapy had been deemed appropriate for. Sussex, instead of stating how many actually received therapy, wrote 'All of the patients were offered some form of psychological therapy prior to commencing ECT, most of them were severely unwell therefore unable to engage with it'.

Consent

Nine Trusts could not say how many people were given ECT against their will. Data from 28 Trusts reveal that 458 out of 1,252 people (36.6%) received ECT without giving consent. Five Trusts reported that nobody had received ECT against their will (Leeds & York; Cambridgeshire & Peterborough; Dorset, Berkshire; and Lincolnshire). At ten Trusts, at least half of patients were given ECT against their will, with the highest rates being at Tees, Esk & Wear Valley (70.7%) and North East London (72.4%).

Fifteen Trusts (40.5%) were unable to provide any response to the question 'When a patient does not consent what professions does the Second Opinion Appointed Doctor consult?' A further eight Trusts responded with exactly the same statement:

> SOADs would be obliged to speak to a doctor, nurse and another professional involved in the care of the patient. This may include Occupational Therapists, Psychologists and other therapists.

It is unclear whether these sentences, duplicated verbatim, were aspirational or describing actual practice. 'Would' is not the same as 'do'. Nevertheless, they were counted as responses.

Of the 22 (14 + 8) that did provide information, four (18.2%) were not compliant with the Mental Health Act (Section 58), because SOADs were reported to be consulting only with nurses, or not with nurses (SOADs are required to consult with nurse and one other, non-medical, staff member).

Efficacy

Measures

Eight Trusts failed to respond to the question about 'measures of clinical outcome'.

Nine Trusts responded with exactly the same sentence:

> All patients having ECT have baseline measures of mood, rated with valid rating scales such as the MADRS. The CGI is also used.

These duplicated responses were considered non-responses because the sentence refers to 'baseline measures' rather than outcome measures.

Of the 20 Trusts that did respond appropriately, 17 (85.0%) mentioned the Clinical Global Impressions (CGI) scale, in which a clinician subjectively assesses improvement on a 7-point scale. Seven (35.0%) used only the CGI. Four used other unspecified or subjective approaches to assessment. Eleven (55.0%) reported using one or more validated

depression/mood scales: Hamilton Depression Rating Scale (6); Montgomery-Asberg Depression Rating Scale [MADRS] (5); Hospital Anxiety and Depression Scale (3); and Beck Depression Inventory (1).

Only one (Avon & Wiltshire) mentioned follow-up assessments: 'Follow-up visits or phone calls, where we ask patients for their assessment of the effects of ECT and also repeat memory testing'. The only other Trust indicating that anyone other than psychiatrists were involved was Central & NW London: 'Carers are also consulted regarding their views on the treatment'.

No other Trusts reported directly asking the patients.

Data

Only six Trusts (16.2%) provided data. All six used the CGI, based on the 'impression' of the doctor administering, or referring for, the ECT (1 – very much improved; 2 – much improved; 3 – minimally improved; 4 – no change; 5 – minimally worse; 6 – much worse; and 7 – very much worse).

Three of the six collapsed the three improved points into 'improved'. Combining the 169 patients from the six Trusts, 88.2% were 'improved', 10.1% showed 'no change', and 1.8% were 'worse'. However, the 79 patients in the three Trusts that used all seven points of the scale reveal a more nuanced picture: 15.2% 'very much improved', 27.8% 'much improved', 44.3% 'minimally improved', and 12.7% 'no change'. Thus, the majority (57%) showed either no change or only minimal improvement.

No data from any validated scales or by anyone other than the doctors, or at any follow-up point beyond the end of treatment, were reported.

Adverse effects

Measures

Nine Trusts failed to respond to 'What measures were used for the adverse effects of ECT?' Again, multiple Trusts (seven) used exactly the same words: 'Cognitive assessments are done before, during and after treatment'. Of the 28 providing responses (individual or duplicated), nine (32.1%) named one or more validated tests of cognitive function, most commonly the Montreal Cognitive Assessment (8), the Mini-Mental State Examination (4), and the Addenbrooke Cognitive Examination (2). Other responses included 'orientation questions' (4), 'clinical interviews/assessments' (4), the CGI (3), and questions about nausea, headaches, and muscle pain (2).

One Trust (Midlands) wrote: 'Response provided by Staff is that they are not aware of any adverse effects'. Only one Trust (Avon & Wiltshire) mentioned assessment beyond the end of treatment (see above). None referred to any independent assessments by anyone not directly involved in the treatment.

Data

Only seven Trusts provided any adverse effects data. Four reported that there had been no cases of adverse effects (Camden & Islington; Cambridgeshire & Peterborough; Midlands; and Sussex). Sussex, however, added: 'Patients were treated with unilateral ECT as indicated in response to complaints about memory disturbance'. Oxleas reported 'One case where Mini-Mental State Examination dropped slightly from 25 to 23'.

Lancashire & South Cumbria reported 'The 6CIT (Six Item Cognitive Impairment Test) is completed before the patient starts ECT, following every 2 ECT treatments and following completion of their course of ECT'. The Trust wrote '15 patients reported memory loss', that is, 21.1% of 71 patients.

Gloucestershire provided a table of Montreal Cognitive Assessment scores for 14 ECT patients (Nasreddine et al., 2005). Eight (57.1%) scored less than 26 out of 30, indicating some degree of 'cognitive impairment'. Five showed 'mild' impairment (10–17), two were 'moderately' impairment', and one was 'severely' impaired (less than 10).

Duplicated responses

The exact same sentences were used by several Trusts to respond to three questions (see above). Twelve Trusts used at least one of these sentences. Four Trusts used the same sentences to respond to all three questions: East London; Nottinghamshire; South London & Maudsley; and Tees, Esk & Wear Valleys. Three Trusts used two copied sentences: Cornwall; North East London; and Sussex.

Miscellaneous

One Trust, Barnet, Enfield, and Haringey Mental Health, added:

> The ECT department have also requested that the following be included in this response: There is a mistruth being propagated by an extreme anti-ECT lobby that ECT causes 'brain damage'. This misinformed opinion has no factual basis. None of our patient demonstrate any symptoms of 'brain damage' and some of our patients are only alive because they were given ECT.

Discussion

Response rates

Failure to respond to the FoI request at all, and inability to answer specific questions within it, are important findings. Failure to respond to a question indicates that the Trust and its ECT team are not sufficiently interested in the issue at hand to collate information about it so that it would be readily accessible, to themselves or others. Table 3 shows that the response rates have remained broadly the same over time. None of the changes are statistically significant. Trusts show consistently low response rates for outcome data, adverse effects data and, worst of all in 2019, for prior psychological treatments.

Psychological therapy

The current study can't answer the question 'How many people had ECT without receiving a NICE recommended psychological therapy?' because all but one of the Trusts can't answer the question. Only 2.7% of the 37 responding Trusts (1.8% of all 56 Trusts) answered the question. This compares to the ten out of 32 (31.2%; or 17.9% of all 56 Trusts), in the previous audit (Read et al., 2018), which concluded:

> Failure to record or collate this information suggests that most Trusts are not interested in, or aware of, N.I.C.E guidelines on this matter.... It seems some clinicians and managers remain unconvinced of the need for an integrated, evidence-based approach involving the non-medical treatments recommended by N.I.C.E.

In support of its recommendation for psychological treatments, NICE cites a meta-analysis of 17 randomized control trials of such treatments (van t'Hof, Cuijpers, Waheed, & Stein, 2011). Electricity and convulsions cannot address the social causes of depression, such as loss, neglect, and abuse, that are often the focus of talking therapies (Bowden, Holtum, Shankar, Cooke, & Kinderman, 2020; Cromby, Harper, & Reavey, 2013; Johnstone & Boyle, 2020).

Neither its surveys (Buley et al., 2017) nor its Standards for Accreditation (ECTAS, 2020) mention the NICE recommendations about only using ECT 'when other treatments have failed'.

Psychologists and other mental health staff should try, in their multidisciplinary teams, to ensure that people are offered evidence-based psychological treatments before being offered ECT. NICE recommended therapies for depression include cognitive behavioural therapy, interpersonal therapy, behavioural activation, behavioural couples therapy, counselling, and psychodynamic psychotherapy (National Institute of Clinical and Health Excellence, 2017).

While some patients who are being considered for ECT may not be appropriate for therapy if in the acute stages of severe depression, psychological interventions at a systemic level may be very useful. For example, the widespread practice of team formulation (DCP, 2011), which is a form of supervision, may be helpful in containing staff anxiety and thus reducing the perceived need for coercive interventions of all kinds (Johnstone, 2019). All severely depressed people deserve our persistent efforts to establish a therapeutic relationship within which needs and worries can be ascertained and reassurance given.

Change in ECT usage in England over time

A 1980 survey estimated that 27,000 people received ECT in Great Britain in 1980, down from about 50,000 in the early 1970s (Pippard & Ellam, 1981). Department of Health reports for England (Department of Health, 1989, 1999) show that the number of individual administrations of ECT fell from 159,600 in 1980 to 109,707 in 1989, and then to 65,928 in 1999. If the average number of administrations per course of treatment was the same as now (ten), the number of people given ECT in England had fallen to about 11,000 in 1989 and about 6,500 in 1999. ECTAS began its national surveys in 2012/2013. By 2016/2017, it reported, for England, a 'decline from previous years', to just 2,135 (Buley et al., 2017).

(Our previous audit wrongly reported a low point of 1,300, incorrectly citing a 2006 ECTAS study (Cresswell, Hood, & Lelliott, 2007) which was for 3 months only, and for the whole of the United Kingdom.)

Extrapolating from the 44 Trusts responding to Freedom of Information requests by the Guardian newspaper, an estimated average of 2,748 people per year received ECT in England annually for the period 2012 to 2016 (Davies & Duncan, 2017; Read et al., 2018). This is very similar to the 2,822 estimate from our 2011–2015 audit (Read et al., 2018).

The current study can also provide only an estimate. Multiplying the average number of annual ECT recipients for the 37 Trusts (53.1) by 56, the total number of mental health trusts, produces a total of 2,974. Meanwhile, the most recent ECTAS survey, for 2018/2019 (Cartwright, 2019), does not state how many of the 108 clinics surveyed are in England so we cannot extrapolate a total for England. However, the average number of ECT patients per clinic (24.2) remained essentially unchanged from 2015/2016 (23.7) so

the total number of ECT recipients in England is unlikely to have changed significantly from ECTAS's 2015/2016 figure of 2,135.

It is unclear why the Freedom of Information requests of our two audits and the Guardian produce figures consistently about 20% higher than the ECTAS surveys (with similar response rates). All we can reasonably conclude is that the number of people receiving ECT in England annually for the last 8 years has been somewhere between 2,100 and 3,000.

The fact that we cannot be more precise is consistent with the overall lack of monitoring of this controversial treatment. Nevertheless, the numbers are about 5% of the number in the 1970s. Whether the decline is stalled or is gradually continuing, as the 2015/2016 ECTAS report suggested, is unclear. There seems to have been no further decline between the 2015/2016 and 2018/2019 ECTAS surveys. The mean for the 21 Trusts that provided data for both our own audits had fallen slightly, from 50.7 (2011–2015) to 47.3 (2019), but that is not statistically significant (see Table 2).

Although the way ECTAS reports the number of ECT clinics by nations is not consistent, it can be calculated that the number of clinics in England, Wales, Northern Ireland, and Ireland combined fell by 9%, from 117 in 2016 to 108 in 2019; and the number in England and Wales combined fell 18%, from 104 in 2013 to 85 in 2019. This may, however, be partly explained by merging catchment areas.

Table 2. Comparison of the responses of the current audit (2019) with the previous audit (2011, 2013 & 2015)

	2019 audit (n = 37)	Previous audit (n = 32)
Mean ECT patients for all Trusts	53.1 (*SD* 35.8)	50.4 (*SD* 30.2)
Mean ECT patients for the 21 Trusts responding to both audits	47.3 (*SD* 19.4)	50.7 (*SD* 25.5)
Median ECT patients per 100,000 population	3.9	4.3
% Female	66.7%	66.1%
% Over 60	58.0%	56.5%
% Without consent	36.6%	38.7%
% of Trusts with SOAD process non-compliant with Mental Health Act	18.2%[a]	30.0%[b]
% of Trusts with record of previous Psychological Therapies[c]	2.7%	31.2%
% using Clinical Global Impressions scale[c]	45.9%	50.0%
% using only the CGI[c]	18.9%	18.7%
% using Validated Depression Scale[c]	29.7%	40.6%
% using independent outcome assessment[c]	0%	0%
% with Outcome data[c]	16.2%	12.5%
% using Validated Adverse effects measure[c]	24.3%	43.7%
% with Adverse Effects data[c]	18.9%	12.5%
% with follow-up assessment of any kind[c]	2.7%	0%

[a]Four of the 22 providing data re SOADs.

[b]Six of the 20 providing data re SOADS.

[c]Based on all participating Trusts (n = 37; n = 32).

Regional variation

The 47-fold difference between highest and lowest per capita ECT usage was higher than the 12-fold difference in our previous audit. The per capita rates for the 21 Trusts responding to both audits (2011–2015 vs. 2019) were highly correlated ($r = .73$, $p < .001$), suggesting consistency over time in terms of relative per capita rates.

This high variability is consistent with variations around the world (Leiknes et al., 2012) and has long been the case. A 1980 RCPsych survey found fivefold differences between regions and 17-fold differences between hospitals, which they partly explained by the wide range of psychiatrists' personal opinions about ECT (Pippard & Ellam, 1981).

Numbers for individual Trusts are not reported by ECTAS, so the enormous variation remains invisible and requires neither explanation nor solution.

Age

Four of the 35 Trusts answering the question (11.4%) had given ECT to a child (under 18): Avon & Wiltshir; Barnet, Enfield & Haringey; Oxford Health; and Southern Health. This is similar to the two out of 27 Trusts (7.4%) in each of 2011, 2013, and 2015. Only one Trust (Oxford Health) reported use of ECT on a child in both audits.

There are no placebo-controlled studies of ECT's efficacy or safety for people under 18. We believe that ECT should never be used on the developing brains of children and adolescents. One Trust (Dorset) has developed its own policy: 'The trust does not treat patients under the age of 18 with ECT'.

The finding that 58.0% of ECT recipients were over 60 is similar to the 56.5% finding from the 2011 to 2015 audit. This is consistent with ECTAS surveys (Buley et al., 2017) and international findings (Leiknes et al., 2012). A recent ECTAS report (Buley et al., 2017) found that the average age of people receiving 'maintenance ECT' (where patients have relapsed so ECT is given repeatedly over time) was even older than those receiving normal ECT (66 vs. 61 years). Maintenance therapy is not recommended by NICE.

The Read et al. (2019) review found that the average age of the participants in the eleven placebo-controlled studies ranged from 35 to 53. Some had no patients over 60. A meta-analysis of the effectiveness of ECT for the 'depressed elderly' concluded 'None of the objectives of this review could be adequately tested because of the lack of firm, randomized evidence' (van der Wurff, Stek, Hooogendijk, & Beekman, 2003). There have been no randomized studies since then. The 2019 review demonstrated that there is no evidence that ECT works for its primary target group, depressed older people. There is evidence, however, that older people are particularly likely to end up with memory loss (Mosti & Brook, 2019; Sackeim et al., 2007). For many years, NICE Guidelines have stated: 'The risks associated with ECT may be greater in older people; exercise particular caution when considering ECT treatment in this group' (NICE, 2009). Instead of heeding this guidance, psychiatrists have continued to administer the procedure to this group at a disproportionately high rate. Meanwhile, ECTAS' accreditation standards do not set any age-related goals or targets, or address the issue in any way at all.

Gender

Two thirds of ECT recipients were women. In 57% of Trusts, twice as many men receive ECT as men. In the 2011–2015 audit, 66.1% were women. This is consistent with British (Buley et al., 2017) and international surveys (Leiknes et al., 2012). Women have been the predominant recipients of ECT for decades. Furthermore, a recent ECTAS survey found

that women were even more likely to be subjected to 'maintenance ECT' (74%) than to 'acute ECT' (67%; Buley et al., 2017). This differential usage is not based on evidence that ECT is more effective for women than men. There isn't any (Read et al., 2019). But, again, there *is* evidence that women suffer more persistent/permanent memory loss than men (Sackeim et al., 2007). As we said in 2018:

> If these findings about age and gender are partly or completely explained by higher levels of depression then one might wonder whether treatments that addressed the social causes of the gender's or age group's greater distress might be deployed rather than treatments that are blind to such causal disparities. Poverty and loneliness come to mind as possible candidates.

Consent

In the current audit, more than one in three people (36.6%) had received ECT without giving consent. The slight reduction from the 38.7% in our earlier audit (Read et al., 2018) is not statistically significant. Thus, no progress is being made towards reducing the use of force when administering this potentially damaging procedure. Of equal concern is the fact that 24.3% (9/37) of the participating Trusts, and 50% (28/56) of all mental health Trusts, could not readily provide this information. In our previous audit, 32.2% of participating Trusts and 60.7% of all Trusts failed to answer this question. This suggests that many Trusts still do not consider this issue important enough to even monitor. ECTAS also fails to monitor this issue in its surveys and has no benchmark or target in its accreditation standards.

Of the 22 Trusts that answered the question 'When a patient does not consent what professions does the Second Opinion Appointed Doctor consult?' (generously including the eight using the duplicated statement), 18 (82%) demonstrated compliance with the Mental Health Act -Section 58 (48.6% of the 37 participating Trusts, and 32.1% of all 56 Trusts). The 82% finding is similar to the 70% in the previous audit. The finding that only 59.5% (22/37) of participating Trusts, and 39.3% of all Trusts (22/56), could readily answer the question (including the eight duplicated statements) may be a cause for concern. It is difficult to know how to explain the fact that eight Trusts used exactly the same sentence from an unidentified source (without even acknowledging that it was a copy), rather than reporting on actual practice.

NICE guidelines state: 'there should be strict adherence to recognized guidelines about consent' (NICE, 2009). ECTAS, however, seems as indifferent as many of the Trusts appear to be. Their accreditation standards include the need to follow general 'provisions stipulated under the Mental Health Act 1983' when an adult patient is assessed as lacking capacity to consent, but make no reference to SOADs (ECTAS, 2020). ECTAS surveys also ignore this issue.

Genuine, informed consent requires the sharing of accurate information about efficacy, safety and alternatives. An analysis of information leaflets provided to patients by the same sample of NHS Trusts, and by the RCPsych, reveals a serious lack of reliable information (Harrop, Read, Geekie, & Renton, 2021).

Efficacy

Measures

The fact that only 54.1% (20/37) of the participating Trusts, or 35.7% of all 56 Trusts, could readily state what outcome measures they used is of concern. This is even lower than the

previous audit, when the figures were 71.9% (23/32) and 41.1% (a non-significant difference). Nine Trusts choosing to substitute a sentence from an external source, rather than report the Trusts' actual practice, is less than ideal.

Seventeen of the 20 Trusts that did report measures (85.0%) cited the Clinical Global Impressions (CGI) scale, in which a single clinician records a subjective impression about improvement on a simple 7-point scale. Seven (35.0%) only used the CGI.

National Institute of Clinical and Health Excellence (2017) guidelines state: 'Clinical status should be assessed following each ECT session and treatment should be stopped when a response has been achieved, or sooner if there is evidence of adverse effects'. ECTAS's standards explicitly recommend that the CGI is used to do this: 'The patient's clinical status/symptomatic response is assessed and recorded at baseline, between each treatment session, and at the end of the treatment course using the Clinical Global Impression (CGI) scale'. Assuming that all Trusts' assessments met ECTAS frequency requirements (which at least one did not – see Results) the essential standard of using CGI was met by 85.0% of the Trusts responding to the question, 45.9% of participating Trusts (17/37), and 30.4% of all 56 Trusts. The corresponding figures for the previous audit were as follows: 69.6% (16/23), 50% (16/32), and 28.6% (16/56), suggesting that use of the subjective CGI may be increasing. Analysing only the 13 Trusts that had responded to this question in both audits the difference was statistically significant (84.6% vs. 69.2%; $X^2 = 5.3$, $p = .02$).

It is, unfortunately, only an 'aspirational' standard that 'Clinical response is monitored and recorded using a validated depression rating scale at least weekly between treatment sessions'. It seems that this ECTAS decision not to require a validated depression scale may have impacted the Trusts' behaviour. Only 11 of the 20 Trusts (55.0%) that responded to this question reported using such a scale. This translates to 29.7% of participating Trusts (11/37) and 19.6% of all Trusts (11/56). It is possible, however, that had ECTAS not included validated scales, albeit only as an 'aspirational' standard, even fewer Trusts would be using them. The corresponding figures for the previous audit were similar: 56.5% (13/23), 40.6% (13/32), and 23.2% (13/56), respectively. Perhaps ECTAS taking this issue more seriously by making it a required standard might increase the numbers in future.

Other ECTAS 'standards' that are merely 'aspirational' and are therefore not required for 'accreditation' include:

> The patient is reviewed by the appropriate team at least once a month for the 3 months following an acute course of ECT.

and

> Patients and their carers are offered the opportunity to formally feedback on their experiences of care and treatment.

Data

Only six of the 37 Trusts (16.2%) in the current audit, and four of 32 Trusts (12.5%) in the previous one, could provide any outcome data. This translates to 10.7% (6/56) and 7.1% (4/56) of all Trusts. These very low response rates are difficult to understand as ECTAS reports CGI data from every clinic that responds to their surveys.

All six providing data for the current audit provided CGI figures only. It is of concern that none of 56 Trusts could provide any data from any validated scale. ECTAS does not ask for these data in their surveys.

Adverse effects

Measures

A mandatory ECTAS standard is 'The patient memory is assessed before the first and after every four treatments using a standardized cognitive assessment tool'. Of the 21 responding Trusts, only nine (42.9%) named a standardized test of cognitive function. This is slightly lower than the 66.7% (14/21) that had done so in our previous audit. Clearly no progress is being towards greater use of validated, standardized measures of these serious adverse effects. On the basis of our two audits, many ECT clinics should fail accreditation on this standard alone.

It is problematic that 16 Trusts could not state what measures they used to assess these common and serious side effects and alarming that seven of these obfuscated with a copied sentence about unspecified 'cognitive measures'.

Another ECTAS required standard is 'Subjective test of memory before every ECT using the Comprehensive Psychopathological Rating Scale (CPRS)'. This scale is mentioned by none of the Trusts, in either of the audits. The failure to provide any independent or (with one exception) any follow-up measures seems unsatisfactory. ECTAS does include the standard:

> The patient is reviewed by the appropriate team at least once a month for the 3 months following an acute course of ECT'

This is, however, merely an aspirational standard.

The RCPsych's 2013 ECT handbook (Waite & Eaton, 2013, p. 81) states:

> Having reviewed all the literature we have concluded that there are no valid, reliable and repeatable tests that can easily be used in clinical practice. . .. The MMSE is widely used . . ...but is the wrong test used in the wrong place at the wrong time.

What is needed is specialist assessments by specialist staff. Yet the RCPsych's ECTAS standards categorize use of these tests as mandatory while categorizing the following standard as only 'aspirational':

> Patients who experience memory problems have access to a specialist assessment by a neuropsychologist or memory assessment service.

So, under the guardianship of the RCPsych, ECT clinics can gain ECTAS 'accreditation' for using the tests that the RCPsych itself has identified as inappropriate, while not providing the necessary specialist assessments.

Data

It was disappointing that only seven Trusts in the current audit could provide any data on adverse effects. This represents 18.9% of the participating Trusts and 12.5% of all 56 Trusts. This is broadly consistent with the previous audit's findings of 12.5% (4/32) and

7.1% (4/56). It is equally concerning that four of the seven reported no adverse effects whatsoever over a 12-month period, with an additional Trust reporting one very minor case. This represents just one case of any sort of adverse effects in 297 people. Given the high incidence of a plethora of adverse effects, temporary and persistent, these responses seem unlikely to be accurate.

It is noteworthy that the only two Trusts that appear to be taking adverse effects seriously reported rates of memory loss/cognitive impairment of 21% and 57%. This approximates the 12% to 55% range in the research studies summarized earlier. The annual ECTAS surveys of clinics do not ask about adverse effects.

All staff are responsible for ensuring that patients are fully informed of the high risk of memory loss and smaller risk of death. This may require discussion in multidisciplinary team meetings and reading the relevant research literature.

Copied responses

The finding that 12 Trusts repeated exactly the same sentences as other Trusts in response to three of our questions, without acknowledging that the statement was copied or identifying its source, is difficult to understand. Three of the 12 Trusts (Cornwall, Dorset, and South London & Maudsley) also spontaneously shared another sentence, not in response to a question: 'We do know that the typical profile of patients seen at our service is consistent with data from ECTAS'. This duplication did not occur at all in the previous audit.

Limitations

The response rate of 66.1% (37/56 Trusts) is slightly higher than the 57.1% achieved by our previous independent audit (57.1%) and similar to the two most recent ECTAS surveys, in 2015/2016 – 60.7% (71/117 clinics) and 2018/2019 – 71.3% (77/108). Nevertheless, response rates to some questions were very low. These are, however, important findings in their own right, because they inform us about whether Trusts collate information on various issues (see Table 3).

Table 3. Ability to answer questions: current (2019) and previous (2011, 2013, and 2015) audits

	2019 Audit (n = 37) (%)	Previous audit (n = 32; %)
Number of ECT patients	100	100
Gender	94.6	87.5
Under 18	94.6	84.4
Over 60	89.2	84.4
Without consent	75.7	68.7
SOAD personnel	59.5[a]	62.5
Efficacy measures	54.1	71.9
Efficacy data	16.2	12.5
Adverse effects measures	75.7[b]	65.6
Adverse effects data	18.9	12.5
Psychological treatment	2.7	31.2

[a]22/37 includes the eight duplicated statements.; [b]28/37 includes the seven duplicated statements.

Nine Trusts failed to provide any data for either of our audits: Dudley & Walsall Mental Health (now called Black |Country Trust); Essex Partnership; Norfolk & Suffolk; Northamptonshire; Sheffield Health & Social Care; and Tavistock & Portman.

The audit does not cover ECT administered outside the NHS.

Recommendations

Overall, the current audit found no improvement in the way ECT is being administered and monitored in England since the previous independent covering 2011–2015 (Read et al., 2018). The recommendations, therefore, sadly, remain exactly the same:

> A return to comprehensive national annual audits seems urgently needed. These should include attention to compliance with N.I.C.E. guidelines and mental health legislation. In the meantime, all mental health service providers must take responsibility for monitoring their own adherence to government guidelines and the law, and should familiarize themselves with the research literature on the long-term benefits and adverse effects of this controversial treatment. A multidisciplinary investigation into the ongoing excessive use of ECT on women and older people seems long overdue.

Monitoring and accreditation needs to be transferred from the RCPsych to an independent body. In 2003, NICE reported that 'The ongoing deficiencies in current practice were highlighted to the Committee, and the Committee strongly believed that action is required to ensure that appropriate standards of care are enforced whenever ECT is undertaken and that outcomes are continuously monitored'. Seventeen years it seems the RCPsych's ECTAS may have failed to address NICE's concerns or embrace their best practice recommendations. They are monitoring patients using cognitive tests which the RCPsych describes as neither valid, reliable nor repeatable (Waite & Eaton, 2013). Informed consent falls below both UK legal requirements and NICE expectations. ECTAS does not seem to have addressed the large regional discrepancies identified by NICE in 2003 and subsequently by our two audits, and there is scant evidence that all alternative treatment avenues are being explored before ECT is given.

Conflict of interest

The authors report no conflict of interests. The authors alone are responsible for the content and writing of the manuscript.

Author contribution

John Read, PhD (Conceptualization; Formal analysis; Investigation; Methodology; Project administration; Writing – original draft; Writing – review & editing) Christopher Harrop (Conceptualization; Data curation; Investigation; Methodology; Project administration; Writing – review & editing) Jim Geekie (Conceptualization; Data curation; Methodology; Project administration; Writing – review & editing) Julia Renton (Conceptualization; Methodology; Project administration; Writing – review & editing) Sue Cunliffe (Investigation; Resources; Validation; Writing – review & editing).

Data availability statement

Data available on request from corresponding author.

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Received 20 November 2020; revised version received 2 February 2021