

Auditing Electroconvulsive Therapy

David Healy, MD FRCPsych

Data Based Medicine Americas, Toronto, M3H, 1E1, Canada

The first audit in medicine was reported in 1980 on the use of electroconvulsive therapy (ECT) for mental disorders in the United Kingdom. John Read and colleagues have recently conducted an update auditing the extent to which patients are informed of treatment hazards. Their report also audits the response of British health services to being audited about ECT. The response from services was poor on both the details given to patients and the extent to which services responded to questions from the audit team. This review questions how likely it was that Read and colleagues would get a response and given the heterogeneity of patients given ECT whether any response was likely to be meaningful.

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I entered the mental health field as a committed Rogerian and still think this approach has much to offer. I later ran an electroconvulsive therapy (ECT) service in the United Kingdom, not because of any ideological bend in that direction, but because there was no one else to run it. I was interested to see what happens.

This led to a role as a co-author to Edward Shorter on a history of Shock Therapy, in which I wrote three chapters, one being *The Swinging Pendulum* that covered the origins of informed consent, a topic relevant to this review (Shorter & Healy, 2007).

Dr. Read and colleagues give a detailed introduction, outlining their views about ECT, rather than the methodological issues involved in doing an audit, which is what the article is about (Read et al., 2023). I will follow their lead and offer a review that attempts to introduce a degree of context to the issues raised in the introduction. A consideration of the audit will follow after.

EFFECTIVENESS I

Dr Read and colleagues' introduction is selective in the sources it references. It may be that some of the references are less selective and deal with the evidence in more detail, but this article does not do so.

The U.S. Consortium for Research on ECT (CORE) studies, for instance, which are methodologically better than the references cited, are not obviously taken into account.

There are issues within and beyond the CORE studies that need to be considered when assessing the evidence. Unlike psychotropic drug studies, which are ordinarily tied to one indication at a time, this is not true for electroconvulsive therapy (ECT) practice or much of the research. The subjects, in other words, are heterogenous, and response to treatment, good and bad, will accordingly be heterogenous.

There is also the issue of Sham ECT as a control. It is now clear that some of the anesthetic agents being used particularly in older studies have beneficial effects in catatonia and the Neuroleptic Malignant Syndromes (NMSs) that can result from antipsychotic drugs so that Sham ECT in these instances is not a placebo. There really is no option but to go for nontreatment in conditions like catatonia, or melancholia if you want to establish whether ECT is effective for these indications.

Suicide

In terms of heterogeneity, ECT patient samples will include “borderline personality” patients, because of their multiple suicide attempts. I put borderline personality in quotes as at least some with this diagnosis will in fact have drug-induced suicidality misdiagnosed as borderline.

Let me give a real but disguised example. In my role as an ECT consultant, I routinely refused to accept people who were not melancholic or catatonic. I refused a patient diagnosed as borderline, as there were clear situational and dynamic issues in this case, but the patient and his/her consultant nevertheless strongly wished to go ahead. My efforts to dissuade them got nowhere. The treatment was unsuccessful.

This person later committed suicide. The suicide in fact was an accident—a suicidal gesture that went badly wrong. The point here is two-fold—this was an accident not a suicide but those who did not know the case will see a record that reveals a post-ECT suicide in someone who could never have been expected to be protected from suicide by ECT.

There are no grounds for thinking any treatment directly prevents suicide, in contrast to the healthy volunteer studies that show drugs directly cause suicide. There is a looseness of thought in the field on this issue. If melancholics, who are 80 times more likely to commit suicide than the rest of the population, respond to ECT, improving their condition might prevent suicide but this is not a direct anti-suicidal effect. This contrasts with “mild depressives,” or mixed anxiety–depressive states, who are no more likely to commit suicide than the rest of the population unless treated with antidepressants. In these cases, just as with borderline personality disorder, there will be no benefit from ECT. ECT is not a treatment for mixed anxiety–depressive states.

Randomizing melancholics, mild depressives, and borderline personality patients together is a surefire way to obscure the very real benefits there may be for the melancholics.

This is a good illustration of the limitations of randomized control trials (RCTs). Randomization cannot and does not overcome factors like this and neither does double-blinding. It is much better to run an open study with everyone who knows the patient given an opportunity to contribute to the evaluation of what has happened. This is a case where objectivity comes from letting biases compete rather than attempting to minimize them by stopping people from thinking and engaging with the issues (Healy, 2023).

Memory

I am unimpressed by any position statements from any organization that ECT causes brain damage or cognitive dysfunction. The only study that perhaps supports this was

done by Max Fink over 50 years ago showing subtle right hemisphere issues that endured for several months after treatment.

I am not saying that ECT cannot cause brain damage. The problem is demonstrating that cognitive problems are caused by ECT in that no one today gets this treatment who has not had a truckload of benzodiazepines, antipsychotics, and antidepressants, and who is increasingly likely to be on these drugs while being given ECT. It is relatively easy to demonstrate autobiographical memory problems on benzodiazepines. It is as easy to demonstrate set-shifting problems on antipsychotics. These are the two most common memory problems reported by patients after ECT.

The best that can be said is that if you have been in the mental health services long enough to get ECT, you are highly likely to have cognitive problems, even before you get ECT. A consent form generically attributing memory problems to ECT, excusing all the other treatments, is likely to harm patients as well as a treatment that when used properly can help.

EFFECTIVENESS 2

For instance, patients with Parkinson's disease who have begun to hallucinate as a result of their antiparkinsonian treatment being raised in an effort to maintain motor fluidity, after one application of ECT may be more mobile on a lower dose of their prior medication.

The same holds true for NMS and catatonia. One or two treatments are often all that is needed to produce a restoration to normal.

This brings out a key point which is that ECT appears to help conditions that have a prominent motor component. There is no mood center in the brain on which it acts. The only thing we know about biochemistry is that it increases dopamine—hence the benefit in Parkinson's disease. The benefits of ECT in depressive psychoses ram a hole in any dopamine theory of psychosis and make it clear that antipsychotics immobilize rather than treat psychosis.

ECT secured a place as a treatment by virtue of its get up off a deathbed and walk effects in the treatment of catatonia and melancholia, where patients were previously being tube-fed to keep them alive. As often happens, its benefits in these states led to its indiscriminate use for conditions that were never likely to benefit, and, as happens all too often, when patients complained the system doubled the dose of the treatment in response.

This shows up in the figures the authors cited here. NMS and catatonia respond after one to two treatments (not treatment courses). Melancholia has typically fully responded in less than six treatments. The figures cited here of 10 treatments on average suggest a lot of people are being given ECT inappropriately. Anyone needing a course of 10 or more treatments likely has another diagnosis or is on medicines that complicate the response—such as antipsychotics that are also anticonvulsant.

The interaction with psychotropic medicines brings up another issue. The authors intimate that ECT responses are not enduring, implying that they were never enduring. But as mentioned, no one now gets ECT without being on a cocktail of drugs, many with withdrawal effects. It takes the addition of an extra treatment by the usual doctor (not the one delivering ECT), perhaps with the withdrawal of another medicine thrown in

to boot, to disrupt a response that there may have been to ECT. Is it reasonable to infer from this that ECT responses are not enduring?

Consent

On the matter of consent, the authors give no history and omit work specifically on this issue. We now have informed consent because of legal cases in the 1950s centered on ECT and breast cancer surgery. After informed consent came in, ECT practitioners led the way within mental health in terms of grappling with the question of appropriate informed consent (Ottosson & Fink, 2012).

As a famous informed consent study from the late 1960s showed, it is easy to add established details to informed consent leaflets that would stop everyone from taking Aspirin. The cardiovascular problems, the authors mention twice here, in my opinion, likely fall into this category. Cardiovascular effects are rare and unlikely to stem from ECT per se. They are more likely to come from the cocktail of drugs the person is also on, almost all of which are likely to prolong QTc intervals.

The authors risk misleading people on the dose escalation issue. The dose rises if the convulsive threshold rises, as it does with each convulsion. The amount of electricity given over this threshold remains constant rather than being greater than it had before.

We need valid consent rather than a host of details without context.

Many of those being given ECT appropriately will be catatonic, melancholic, or with conditions like NMS, no more capable of consenting to a treatment than a patient who is delirious. There is a good case for delivering these treatments under common law provisions rather than detaining someone under a Mental Health Act. This rarely happens as mental health staff, nurses, and others including doctors mistakenly believe that a Mental Health Act gives them the right to assault a patient. But detention practices, strictly speaking, have little to do with ECT per se.

THE AUDIT

The first audit in medicine was done on ECT by Pippard (a psychotherapist) and Ellam, reporting in 1980. They found problems like ECT machines that did not work, trainees who did not know whether the person had had a fit or not, patients being given ECT in public settings, and perhaps hearing the anesthetist say “damn it, I hate it when they don’t breathe.”

Pippard and Ellam said they would only have been happy to have ECT themselves in 40% of settings. They also noted that ECT appeared to be the treatment with the greatest variation in use in all of medicine.

These are very different audit criteria from the ones used in this study.

Read and colleagues note that about 2,500 people are now given ECT in the United Kingdom. This figure maybe even less. When I ran the service in North West Wales, in a population of 250,000, there were roughly 10 patients per year, which roughly corresponds with the 2,500 figure. The figure of 10 per year was falling leading to the service being closed down. With a service delivered to 10 people per year, few in management will be in a rush to respond to a request for details.

The North Wales Health Board was the largest in Wales and one of the largest services in all of Britain—it dealt with all medicine not just mental health, so in this

respect was somewhat different. This new service soon ran into trouble centered on its mental health services—it was put into Special Measures and has had an unbelievable turnover of management staff, creating a situation not conducive to responding to a mental health audit.

The North Wales service opted to centralize a service previously delivered at three sites, with up to 50 miles between centers. This made it impossible for some patients. ECT can help those with catatonia, melancholia, or NMS, to access the service, increasing the proportion of people with “borderline personality” being treated.

Then COVID arrived which is supposedly causing a mental health crisis in the United Kingdom. I think this is not as likely as the rapidly escalating consumption of psychotropic drugs, especially by minors despite comprehensive evidence that these are unlikely to help. Many of these crisis patients are unlikely to have a good response to ECT.

I am not surprised that the authors have not had much joy from the Royal College of Psychiatrists either. ECT has rarely featured as a matter of concern for them.

CODA

Dr. Read and colleagues and readers and I can likely agree that mental health services are a mess. But is targeting ECT a good use of anyone’s time?

In North West Wales, there are likely somewhere between 25,000 and 50,000 people dependent on psychotropic drugs. These drugs unequivocally cause suicide. Almost all of them demonstrably cause cardiac changes in everyone and many cardiac deaths. In pretty well everyone, these drugs alter the ability to make love, quite often permanently with the difficulties persisting off treatment for the rest of life. These drugs are reducing life expectancies, increasing rates of dementia, and causing far more cognitive damage than ECT.

ECT is an emotive symbol, but on the figures the authors offer constitutes less than 0.005% of the physical treatments being delivered. The drugs are leading to far more inappropriate detentions than ECT. Besides the visible exercise of draconian power evidenced by detentions, drugs also come with a much more pervasive and arguably more dangerous soft power that is leading to so many ending up on medicines that cause a dependence from which they may never escape. This soft power stems from the fact that the literature on these drugs is almost entirely ghostwritten with negative trials reported as positive in respect of efficacy and safety.

The matter of informing people about the complications of ECT on which there is no consensus (consensus means agreement across parties from differing backgrounds) is a minor matter compared with the fact that ECT is being delivered to people with “borderline conditions,” who stand no chance of benefitting and can only be harmed.

These and other people get treatment because of our poor skills at managing their and our distress. We mismanage them not just with physical treatments but have done so by recovering memories of abuse that never happened and increasingly with inappropriate referrals from psychotherapists to doctors requesting reviews for the addition of drug treatments. These people become patients when they would be better kept outside of health services but those of us within the services, convinced of our own good intentions, psychotherapists as much as anyone else, seem blind to the harm we cause.

On the flip side of this coin, clozapine is often viewed as the best antipsychotic (this is likely wrong—it would be better viewed as the best for some people). Lithium is often viewed as the best mood stabilizer (again better viewed as the best for some people). Bupropion is viewed as better than Selective Serotonin Reuptake Inhibitors (SSRIs) for some. And Ketamine (I mean a single 100 mg intramuscular dose— not Spravato), will produce as great a benefit in some catatonic and melancholic states as ECT. What all these treatments have in common is that along with ECT, they are proconvulsant (Atigari & Healy, 2013).

This taps into a centuries-old view that there are broadly two ways in which physical treatments may help mental illness—by sedating a disturbed system or by strengthening, stimulating, and having a tonic effect on a system that needs strengthening. At present, the physical treatments in use in mental health are geared to sedation (anticonvulsant), which is almost certainly less helpful for many than a tonic treatment would be. Worse again, the failure to make distinctions like this means that most people end up on combinations of sedatives and tonics—a recipe for treatment resistance.

ECT sheds light on the relatively rare psychosyndromes that mental illness services should deal with. Its use is inappropriate for the difficulties of living that all too often end up in mental illness services—services that increasingly make things worse. Is focusing on paperwork, and calling for a ticking of boxes, not based on a broad consensus, going to move this core issue forward?

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Correspondence regarding this article should be directed to David Healy, MD FRCPsych, McMaster University, Toronto, M3H, 1E1, Canada . E-mail: david.healy54@googlemail.com