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# AN INFORMED CONSENT FORM

for

# ELECTRO CONVULSIVE THERAPY (ECT)

*draft 1*

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**contents of this report**

preamble.....	3
1 Informed Consent Form for ECT .....	4
<i>Point 1 The scientific evidence proving that ECT helps with depression and with suicide has always been either weak or seriously flawed. ....</i>	<i>4</i>
<i>Point 2 ECT is still controversial, medical opinion has always been divided – some doctors being strongly in favour, others strongly against, then as now.....</i>	<i>4</i>
<i>Point 3 ECT can be fatal, with one estimate being as high as 1 death in every 2000 patients. ....</i>	<i>4</i>
<i>Point 4 ECT always disrupts the memory, sometimes briefly, sometimes permanently.</i>	<i>4</i>
<i>Point 5 ECT always causes mental confusion, known as 'cognitive impairment'. This means that normal mental activities such as reading, calculating, planning, learning something new, telling the time, telling who you are – any or all of these can become hard or impossible to do, following ECT. Sometimes this impairment is brief, sometimes it is permanent. In its first 20 years, this was commonly used to justify the use of ECT. ....</i>	<i>4</i>
<i>Point 6 ECT always damages brain cells, as animal studies amply prove. Again, in the early decades, this was regarded by some as justification for using it (cf lobotomy).....</i>	<i>5</i>
2 Point 1 The scientific evidence.....	5
2.1 Randomised Trials.....	5
2.2 ECT & suicide .....	6
2.3 Conclusion on the scientific evidence.....	7
3 Point 2 ECT is controversial and has always divided medical opinion.....	8
3.1 brain-damaging therapeutics.....	8
3.2 controversial today.....	10
3.3 the publication of NCCHTA report has been delayed.....	10
4 Point 3 ECT can be fatal .....	11
5 Point 4 ECT always disrupts the memory.....	12
6 Point 5 ECT always causes cognitive impairment.....	12
7 Point 6 ECT always damages brain cells, .....	13
<i>"Evidence for Permanent Brain Damage .....</i>	<i>13</i>
<i>"The Damage Is the 'Cure'.....</i>	<i>14</i>
8 Conclusion.....	15
9 illustrations of cognitive impairment.....	16
10 References & bibliography .....	17

**preamble**

I have now been asked to examine and prepare reports on a dozen or so cases where damage may have arisen from the receipt of Electro Convulsive Therapy (ECT). As part of my obligations regarding these reports, I undertook a more general review of the literature on the subject. This is an onerous and daunting undertaking and one which others better equipped than I, have already undertaken. One recent review scanned 1647 relevant documents [*ref 2003, p 24 at 3.2.1*]. A fresh bundle an inch thick or so seems to arrive on my desk every second month or so. This is a controversial area currently receiving quantities of medical scrutiny, so this report elects to follow an innovative strategy outlined in the next paragraph, thereby better clarifying the issues involved, in terms both of medical and of legal practice. Clearly extra material will need to be added to this report, as more evidence becomes available, or in the case of the extensive NCCHTA review (see below) as it is released into the public domain.

In order to respond to this growing inundation of documents in a coherent fashion, it has been concluded that the best strategy from a medico-legal viewpoint, is to compile a modified consent form, which would enable the legal obligation of 'fully informed consent' to be more realistically fulfilled than it has been to date. This is to follow in the footsteps of the recent Texas Legislature, which provides the model for this approach. The Texan consent form is mandated for each recipient of ECT. A copy of that consent form is/will be appended.

Accordingly, this report starts with an Informed Consent Form which in my view, follows the available scientific evidence more faithfully than those currently used. Such a form should be or should have been presented to every recipient of ECT prior to treatment. The Informed Consent Form presented here, comprises 6 points, each of which is then commented upon in detail in later sections of this report, with extensive quotations from the literature on the subject.

**1 Informed Consent Form for ECT**

**To the patient – this is an important document.** By signing it, you (or your near relative) are giving your consent to receive Electro Convulsive Therapy (ECT). There are 6 points in all. Read each point carefully in turn. It is important that you understand each point. If there is anything you do not understand, ask for an explanation. And **do not sign** until you have understood, agreed to, and ticked, every point.

**Point 1** The scientific evidence proving that ECT helps with depression and with suicide has always been either weak or seriously flawed.

I have had this point carefully explained to me, and I clearly understand its full implications for me. Yes  No

**Point 2** ECT is still controversial, medical opinion has always been divided – some doctors being strongly in favour, others strongly against, then as now.

I have had this point carefully explained to me, and I clearly understand its full implications for me. Yes  No .

**Point 3** ECT can be fatal, with one estimate being as high as 1 death in every 2000 patients.

I have had this point carefully explained to me, and I clearly understand its full implications for me. Yes  No .

**Point 4** ECT always disrupts the memory, sometimes briefly, sometimes permanently.

I have had this point carefully explained to me, and I clearly understand its full implications for me. Yes  No .

**Point 5** ECT always causes mental confusion, known as ‘cognitive impairment’. This means that normal mental activities such as reading, calculating, planning, learning something new, telling the time, telling who you are – any or all of these can become hard or impossible to do, following ECT. Sometimes this impairment is brief, sometimes it is permanent. In its first 20 years, this was commonly used to justify the use of ECT.

I have had this point carefully explained to me, and I clearly understand its full implications for me. Yes  No .

**Point 6** ECT always damages brain cells, as animal studies amply prove. Again, in the early decades, this was regarded by some as justification for using it (cf lobotomy).

I have had this point carefully explained to me, and I clearly understand its full implications for me. Yes  No .

## 2 Point 1 The scientific evidence

### 2.1 Randomised Trials

At no point in its 65 year history has the efficacy of Electro Convulsive Therapy (ECT) ever achieved the blessing of the gold standard of scientific evidenced-based medical practice – the Randomised Control Trial (RCT). Whereas in law, a court may take a view, or can determine a conclusion – in medicine, the landmarks are more fluid. The RCT is therefore deployed to evaluate controversial treatments by giving that treatment to half the patients in an otherwise homogenous group. Patients are randomly allocated one of the two treatments being compared. Ideally neither patient nor doctor knows if the treatment actually given is the ‘real’ one or the decoy. In this way, by carefully comparing the outcomes, again without the evaluators knowing which treatment was received, discrepancies in efficacy can be established. Of course the technique has many pitfalls. Patients, especially mental patients are rarely as homogenous as the ideal demands, nor, more significantly are all ‘depressions’. Ignorance of which treatment was given is not always easy to maintain, nor is this always ethical.

The dearth of Randomised Control Trials is emphasised at the outset in the most up to date review of ECT, namely that performed by The National Coordinating Centre for Health Technology Assessment (NCCHTA) on behalf of the National Institute for Clinical Excellence (NICE). The title of this extensive review is “**Final Assessment Report: Electroconvulsive therapy (ECT) for depressive illness, schizophrenia, catatonia and mania**”. It (or a version of it) is available on line at <http://www.nice.org.uk/Docref.asp?d=35854>. [This document forms ref 2003]. Though this report was begun in November 2001, it has undergone much editing, and is currently due (after further editing) for publication in April 2004. The current version is replete with deleted passages, a point discussed further below.

On the opening page [ref 2003, p9] under the heading NUMBER AND QUALITY OF STUDIES, they state

"We identified two good quality systematic reviews of randomised evidence of the efficacy and safety of ECT in people with depression, schizophrenia, catatonia and mania. We also identified 4 systematic reviews on non randomised evidence, though only one of these could be described as good quality. There was no randomised evidence of the effectiveness of ECT in specific subgroups . . ."

For a treatment in use for 65 years, with over 65,000 ECT being given annually in the UK as late as 1999 [ref 2003 p 9, para 2 line 4], and perhaps 12 million in toto worldwide, this is not encouraging. The picture darkens when we learn on p 24 [ref 2003 section 3.2.1, para 2 and 3], that one of these two 'good quality systematic reviews' refers not to depression but to Schizophrenia, and that the other has yet to be released.

It is therefore fair to say at the time of writing, that there are no RCT relating to ECT in the treatment of depression. Views there may be, positions taken and defended, but the gold standard of endorsement by Randomised Control Trial continues to elude the use of Electro Convulsive Therapy.

Nor is the NCCHTA review just quoted by any means the first, nor necessarily the most comprehensive. In 1991, under Evidence for Efficacy [ref 1991, p 255] we read

### **"Evidence For Efficacy**

A thorough review of the shock literature shows that there are no controlled studies indicating any 'beneficial' effect beyond four weeks. Most show little or no improvement at all. The point was proven at the 1985 Consensus Conference on Electroconvulsive Therapy held by NIMH and NIH . . . ."

The point being that at no time has ECT lived up to the more ambitious targets claimed for it, certainly not in as clear and objective a manner as can be demonstrated in medical practice. In legal terms the phrase 'balance of probabilities' is a valid means of assessment, as is 'beyond reasonable doubt'. It would seem to be a nice point in deciding which, if any, of these legal standards can be applied to the scientific evidence for the benefits of ECT.

Either way, this controversy should not be obscured from patients, however inadvertently, when seeking to obtain consent for this treatment – where it unclear, then this must surely raise questions as to whether fully informed consent has in reality been given.

## **2.2 ECT & suicide**

The key paper here is David Avery, & George Winokur '**Mortality in Depressed Patients Treated with Electroconvulsive Therapy and Antidepressants**', where it is concluded that "in the present study, treatment was not shown to affect the suicide rate". [ref 1976, p 1033] There is a more recent paper [ref 1999] in which the rate of suicide has been shown to be increased by ECT (sic). This would be entirely in keeping with my recent clinical experience with one of the dozen or so patients I have recently reported on, who could no longer tell the time, and for whom legal aid was discontinued – he returned to the hospital where he had been given ECT for hallucinations probably caused by a viral infection, and hung himself. Breggin [ref 1991 p257] and Friedberg [ref 1976] also report a number of similar cases – the reasoning in all seems to be that the cognitive impairment inextricably linked to this treatment can so disable an individual as to lead to self-immolation through despair at lost cognitive abilities.

There is a commonplace notion among many, that ECT may appear 'life-saving' in certain dramatic medical contexts. However there is evidence that this is ephemeral –

"Patients who suffered depression in which retardation and delusions were present and who received real ECT had a significantly improved outcome at the end of four weeks of treatment in comparison with those who received simulated ECT. However this treatment effect was not detectable at six-month follow-up. Patients who were neither retarded no deluded did not benefit significantly from real as opposed to simulated ECT".[ref 1992]

### 2.3 Conclusion on the scientific evidence

It may be noted in passing that sham ECT or simulated ECT involves giving the patient the full preparation for ECT including full anaesthetic and muscle relaxant, up to the point of giving the electric shock, but then withholding the actual passage of electricity through the skull. This does not qualify for the Full Monty of a Randomised Control Trial, but it is perhaps the nearest one can easily come to it. For clearly all the 'placebo' or 'decoy' effects will be present, without the actual passage of electric current. In the last study reported in the preceding paragraph, this method showed no significant long term therapeutic gain.

Equally unimpressive were the conclusions arrived at by the NCCHTA review with which this section opened. There [ref 2003 p9 & p99 section 8.1] it is clearly stated that "In people with depression, real ECT is probably more effective than sham ECT but stimulus parameters have an important influence on efficacy; low dose unilateral ECT is no more effective than sham ECT"

"Probably more effective" would seem to my mind to be rather less than a ringing endorsement, and cannot be said to refute the statement shown as Point 1 above, namely that 'The scientific evidence proving that ECT helps with depression and with suicide has always been weak or seriously flawed.' When this is taken together with the stark evidence of underlying brain damage, as evidenced below, then again, it would seem that consent forms without adequate representation of this point fall somewhat below 'fully informed consent'.

### **3 Point 2 ECT is controversial and has always divided medical opinion**

#### **3.1 brain-damaging therapeutics**

ECT was introduced by Cerletti in 1939. In 1940 Sakel ( a prominent psychiatrist in the USA and a pioneer of Metrazol injections, which induced epileptic convulsions chemically) thought the trauma of ECT too extreme for immediate acceptance. The point is succinctly described by Whitaker [*ref 2001, p98, para 2*]

"Electroshock, which was introduced into U.S. hospitals in 1940, was not seen as a radical new therapy. As Cerletti had suggested, his achievement had simply been to develop a better method for inducing convulsions. Electricity was quick, easy, reliable, and cheap – all attributes that rapidly made it popular in asylum medicine. Yet, as soon became clear, electroshock also advanced "brain-damaging therapeutics" a step further. In comparison with metrazol, it produced a more profound, lasting trauma. Sakel, who thought the trauma too extreme, pinpointed the difference from his own insulin treatment: "In the amnesia caused by all electric shocks, the level of the whole intellect is lowered. . . the stronger the amnesia, the more severe the underlying brain cell damage must be."

"Indeed, asylum medicine was now pitching headlong down a very peculiar therapeutic path. Was the change effected by brain trauma a good or a bad thing? How one answered that question depended in great part on one's beliefs about the potential for the severely mentally ill to recover and whether there was much to value in them as they were. Criticism of the shock therapies, which came primarily from Freudians, was memorably articulated in 1940 by Harry Stack Sullivan, a leading psychoanalyst:

'These sundry procedures, to my way of thinking, produce "beneficial" results by reducing the patient's capacity for being human. The philosophy is something to the effect that it is better to be a contended imbecile than a schizophrenic. If it were not for the fact that schizophrenics can and do recover; and that some extraordinarily gifted and, therefore, socially significant people suffer schizophrenic episodes, I would not feel so bitter about the therapeutic situation in general and the decortication treatments in particular.' [ref 1940]"

'Decortication' the term used in the last sentence by Stack Sullivan is the same as that used by laboratory assistants in 'preparing' rabbits and other animals for 'live' or quasi-live physiological experiments. It involves destroying the upper brain, but not the mid-brain, which can therefore carry on keeping the animal alive, though it can never become conscious again. It may be hard to believe that this was the philosophical basis for the "brain-damaging therapeutics" into which ECT fitted so neatly and so economically in the 1940's, as so well described in the preceding paragraphs. This was manifestly the objective of psychiatric procedures at that time. The question is, is the same a lawful basis for medical practice in this millennium? And if it is, should the patient's views on the matter be consulted more adequately, before 'fully informed consent' can be said to have been given?

### **"The Safety of the 'New' Shock Treatment.**

"The most highly publicized alleged improvement is called modified ECT. It involves sedation, muscle paralysis, and artificial respiration. Despite the PR, this method is not new at all: I administered it more than twenty-five years ago in the early 1960's during my training at Harvard. Furthermore, modified shock, of necessity, is *more* dangerous. First, the hazards of general anaesthesia and muscle-paralyzing agents are added to those of the shock. Second, the intensity of current must be greater to overcome the anticonvulsant effect of the short-acting sedative that is injected immediately prior to the shock. In addition, patients in modern psychiatric hospitals frequently receive other medications, such as sedatives and minor tranquillizers, which further raise the seizure threshold. Furthermore, patients too often receive neuroleptics, antidepressants, and especially lithium, all of which can worsen the impact of shock.

“Modified ECT wasn't introduced to reduce brain damage, since the shock doctors used to believe that the damage was therapeutic. The purpose of the modifications was to prevent fractures from muscle spasms. The claim that modified ECT reduces brain damage is a very recent public relations twist and has no validity whatsoever. Another alleged improvement involves the use of differing types of electrical stimulation. But the relative safety of these is controversial, and most of them have been around for decades. Besides a great deal of shock is done at the same or higher energy levels used in the 1940's. The electrical current must in any case be sufficiently disruptive to produce a convulsion. . . . While they won't admit it, many shock doctors act on the old axiom that the brain damage does the trick.” [ref 1991, p258]

### **3.2 controversial today**

The NHFFTA Report [ref 2003] mentions two recent articles, one pro and the other con. These are listed in the bibliography there as (6) *Fink M. Convulsive therapy: a review of the first 55 years. Journal of Affective Disorders 2001; 63(1-3):1-15*, and (7) *Sterling P. ECT damage is easy to find if you look for it. Nature 2000; 403:242*.

Given the parlous state of Randomised Control Trials, it would seem that some authority exterior to the medical profession may need to insist the patient be made more aware of this deep and continuing divide.

### **3.3 the publication of NCHTA report has been delayed.**

In pursuing statistics to find what the current estimates of death rates from ECT might now be, I was disappointed to see that the line on p 40, section 3.2.3.8 [ref 2003] has been blacked out, with the words **ACADEMIC IN CONFIDENCE UK ECT GROUP DATA REMOVED.**

Now however much one might favour the preservation of intellectual property, when it comes to the rate at which 'Adverse event: mortality' is concerned, then perhaps the wider public interest might be thought to prevail.

I discussed this point with one of the authors of the report, who confirmed that many of the editorial meetings had been not run exactly smoothly. This author was also surprised to find the above rubric substituting for the actual mortality figures in the report, pointing out to me that the report itself had been commissioned in November 2001, some 2 years ago. I adduce this as further evidence of the controversial standing of ECT among the psychiatric fraternity. Again, this sort of

controversy should surely be brought to the attention of prospective recipients of this intriguing treatment. An analogous reticence would be unthinkable, were we discussing possible treatments for any physical condition, AIDS for example – there would then obviously be a rush to publish, since lives could obviously be saved by so doing. Why mental diseases should not merit the same priority is perhaps a reflection on, as Harry Stack Sullivan comments, on how human we regard sufferers from this invisible disease.

#### 4 Point 3 ECT can be fatal

Cerletti originally experimented by passing electric currents through dogs. He stopped doing so when 50% of his dogs developed cardiac arrest, and died. Electric currents are hazardous things to pass through the human body – the heart especially is sensitive to them. In the following paper, of which the introduction is reproduced in full, the authors mention not only cardiac susceptibilities to the passage of electricity, but also that of the mid-brain, or medulla. Here are centres for the control of many body systems, including the respiratory system. It is therefore noteworthy that a number of the deaths were associated with failure to breathe. Perhaps this complication is more easily controlled, since full anaesthetic equipment and resuscitation facilities are available nowadays. But again, the question arises, if these more ominous problems associated with the passage of electricity through the brain itself, are not brought fully to the attention of the patient, before signing, consent cannot be regarded as ‘fully informed’. I venture to add that where the doctor fails to inform him or herself, then this adds little to the resolution of the legal question.

FATALITIES FOLLOWING ELECTRIC CONVULSIVE THERAPY REPORT OF TWO CASES, WITH AUTOPSY  
FRANKLIN G. EBAUGH, M:D. CLARKE H. BARNACLE, M.D.  
AND KARL T. NEUBUERGER, M.D. DENVER

The present widespread use of electric convulsive therapy in psychiatry prompts one to analyze carefully occasional cases of fatality from its use. Cerletti, citing his original work with Bini, stated that although thousands of convulsions have been produced in patients, no deaths have occurred. In a survey of this situation by the United States Public Health Service in October 1941, 4 such deaths were reported, **which is a rate of 0.5 per thousand of the total number of patients treated by this method.** As far as we have been able to ascertain, throughout the United States up to June 1942 10 deaths, including the 2 in our experience, have occurred. Of these 10 fatalities, the cause of 2 was immediate respiratory failure, the data on 1 were unknown and the electric convulsive therapy served as a contributing cause of the others. The distribution of the cases is shown in the accompanying table. In this paper we wish to discuss 2 cases of death of patients receiving electric convulsive therapy. [*emphasis added ref 1943*]

The Texas legislature mandated that every death occurring within 14 days of the receipt of ECT be recorded. This confirms two points. First that deaths are still associated with ECT, and secondly that data, currently, are not easily come by, as confirmed above.

#### **5 Point 4 ECT always disrupts the memory**

Sakel at the very outset of the usage of ECT, showed just how inextricably amnesia is linked with the application of ECT (as quoted at 3.1 above). Sakel argued that his favoured insulin therapy was less disruptive of the patients' memory systems. The fact that insulin therapy is now consigned to the museum, and ECT is not, perhaps suggests that it does indeed operate on the one item that insulin therapy did not touch, namely disrupting the patient's memory.

Those reading about how ECT was used, or rather abused in the 1950's calls for a strong constitution. It is vividly described by both Breggin and Whittaker [*refs 1991 and 2001 respectively*]. Patients were then, as a matter of policy, reduced to quivering wrecks, quite as bad as Harry Stack Sullivan feared.

The majority of articles on the effects of ECT make no observations past a few weeks after the end of treatment. What is significant about the recent NICE evaluations, is that many, many patients are now coming forward, for the first time, indicating that their problems with memory have not gone away. This has been my consistent finding of the many post-ECT cases I have been asked to examine.

In clinical terms, all convulsions are known to induce amnesia, invariably. This is an important diagnostic symptom in evaluating epilepsy from syncope or faint. Ergo every convulsion, whether chemically, electrically or spontaneously induced, must entail an element of amnesia. Sometimes this will be short lived, sometimes it will last a life time. I have personally examined many post-ECT patients, whose memory never returns. Again, any consent form which does not include at least some mention of this clinical fact, cannot in my clear view, lay claim to being 'fully informed.'

#### **6 Point 5 ECT always causes cognitive impairment**

When the implications of the destruction of brain tissue described in this report are fully appreciated, it should surely come as no surprise that cognitive impairment, i.e. disruption of normal mental activities accompanies the application of convulsive levels of electricity to brain tissue.

Breggin calls it 'internal brain injury syndrome' – the brain goes to considerable lengths to protect itself against trauma – any injury, especially one induced electrically, must disrupt its normal pattern of working. Where this is short-lived, then the damage may be small. Where it is long term, as in the cases I have now been asked to examine, there can be no doubt whatsoever of where it comes from. A summary of the key points in 10 recent cases is included in the an appendix to this report.

The human brain is a complex delicate organ. Its means of communicating with itself, and with the body systems around it is via delicate electrical impulses – these are picked up on the EEGs. Impose massive doses of electricity over and above the convulsive threshold, and, as with the heart, damage is inevitable, sometimes permanently so.

#### 7 Point 6 ECT always damages brain cells.

The question of brain damage, especially in animal studies is so critical to any assessment of the usage of ECT, that it is worth examining the matter in some detail. I cannot do better than include here Breggin's succinct description. The painfully acute relevance of his comments, is confirmed by Professor Hugh Freeman's assertion in his recent assessment of ECT that "*there is no evidence from animal experiments that ECT . . . causes neuropathological changes*". This is so far from the story told by the vast amount of evidence to the contrary, that I would ask the reader to bear with me during this long excerpt.

"In their books, articles, and public statements, shock supporters, including the American Psychiatric Association, often ignore the vast literature on the damaging effects of even minor head injury. An exception (see ahead) is advocate Max Fink, who believes that shock treatment works by causing the typical aftermath of closed-head injury.

#### **"Evidence for Permanent Brain Damage**

"Brain damage from shock is amply demonstrated in animal research. Research conducted on dogs. cats. and monkeys in the 1940s and 1950s was so convincing that the search for further evidence came to a halt. Nonetheless, leading shock advocates, like Lothar Kalinowsky, claimed in their reviews that the animal research showed no damage. To the dismay of those of us who independently read the original investigations, most animal studies turned out to provide unequivocal proof of brain damage. For example, in 1952 Hans Hartelius published a book length report. 'Cerebral Changes Following Electrically Induced Convulsions: as a supplement to Acta psychiatrica Neurologica Scandinavica (vol. 77). He found scattered cell death and small haemorrhages in the brains of cats following relatively small doses

of shock. Almost without exception, merely by examining their brains microscopically, he was able to predict which animals had been shocked.

"Having first claimed that the early animal studies were negative, shock doctors instead now claim that these studies are too old or too flawed to count. If the studies showing brain damage were indeed outdated, it would be up to the shock doctor to stop using such a patently dangerous treatment while awaiting new studies with large animals, like dogs or monkeys. However, the older studies are not outdated, since they used less current than that applied to humans in modern ECT.

"There is no reason to believe that modern shock is safer. The electrical stimulation must, in fact, be stronger nowadays, since the patients are sedated, and sedation makes it more difficult to convulse the patients. Cell death and widespread small, and sometimes large, haemorrhages are confirmed by human autopsy studies. Other evidence for persistent brain-damage is found on EEG studies, neuropsychological testing, some brain scan studies, and many clinical reports.

"The damage is caused by several factors that have been studied by direct examination of animal brains subjected to very small electrical stimulation: first, mechanical and heat trauma from the electric current; second, spasm and breakdown of the blood vessel walls as the electricity travels down the vascular tree; and third, to a much lesser extent, the convulsions.

"Nowadays shock doctors are very sensitive to public and professional opinion, and therefore they maintain that the treatment is relatively harmless and that its method of action is unknown. But in the first couple of decades of use, many shock authorities boldly declared that the treatment works precisely by damaging the brain and that brain-cell death is the key to successful treatment.

"In April 1946 psychiatrist P H Wilcox complained in *Diseases of the Nervous System* that 'there is a prevailing assumption that therapy of certain types of mental diseases must or can be accomplished only by destroying brain cells . . .' and that 'this belief has become sufficiently current so that it is not unusual to hear prominent psychiatrists and neurologists express the opinion that improvement from any of the shock therapies in certain mental conditions must necessarily depend upon brain tissue destruction.'

### **"The Damage Is the 'Cure'**

"To the extent that it works at all, shock has its impact by disabling the brain. It does so by causing an organic brain syndrome, with memory loss, confusion, and disorientation, and by producing lobotomy effects. For a few days or weeks the patient may be euphoric or high as a result of the brain damage, and this may be experienced as 'feeling better'. In the long run the patient becomes more apathetic and makes fewer complaints.

"Max Fink acknowledges that denial and euphoria are directly correlated to the degree of brain damage as it is demonstrated by abnormal brain wave patterns and other signs of dysfunction; brain dysfunction is not, in Fink's own words, a 'complication' or 'side-effect' but the sine qua non of the mode of action'." [ref 1991 p244]

## 8 Conclusion

It is not possible in such a small space to convey the full weight of scientific evidence in so complex a field as the application of Electro Convulsive Therapy. What I have sought to do in this brief report is highlight those aspects of the matter which have particular relevance to a patient's understanding of the complex issues involved, and of the ignorance, partly real, and partly not, which surrounds this controversial treatment.

If consent is taken to mean what I think it does, namely being fully informed, then consent forms which do not cover the bulk of the issues mentioned here, do not qualify for this vital epithet. The fact that controversy around this topic has raged since 1939, and that it is in full flood today, indicates that it is unusual in medical circles. The need for tighter legal oversight could hardly be greater.

If I can assist in any other way, I should be happy to do so.

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**9 illustrations of cognitive impairment**

	<i>Main permanent symptom</i>	<i>Previous role</i>
1	Cannot tell the time	Engineer
2	Cannot clean oven	Was keen book worm
3	Cannot balance books	Failed accountant
4	Cannot learn bridge/recall card dropped	Family broke down
5	Cannot write up night reports	was OAP carer – no more
6	Cannot recite alphabet	Ran a small business
7	Cannot drive outside familiar area	was an engineer
8	Cannot remember where car is parked, nor organise lessons	Failed headmistress
9	Cannot plan – could recite Romeo & Juliet verbatim before ECT. Now cannot remember last week	-
10	i) cannot read – only short books ii) cannot balance books - £60 a week, daren't vary it iii) cannot add 8 + 3 iv) cannot compare two lists v) used to be life and soul of party – ‘ a Leo’ – now reclusive because too slow on the uptake vi) gets confused reading and listening as yesterday – tip of the ice berg.	Had been a taxi driver for 20 years – now cannot calculate change.

**10 References & bibliography**

<i>Ref number</i>	<i>Title and author</i>
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