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The Royal College of Psychiatrists' Memorandum on the Use of Electroconvulsive Therapy

Introduction

A Special Committee of the College was appointed in May 1976 after the President had received a request from Dr Porter, the Regional Medical Officer of the SE Thames Regional Health Authority, for the College's advice on the problems of administration of ECT, especially when consent is withheld or given reluctantly. Although the Regional Authority had been concerned earlier with the problem, the situation which prompted further action was the publication in March of the Report of the Inquiry on St Augustine's Hospital, pages 63–71 of which dealt with the administration of ECT and recommended that the College 'should give urgent consideration to these problems and issue clear guidance'.

In addition, the College, too, had been disturbed by poorly informed public comments on the effects and effectiveness of ECT, and in particular by the possible consequences of the action of certain pressure groups who have been campaigning against the use of ECT. It therefore seemed that this was an appropriate moment at which to clarify some of the issues. Even between experienced psychiatrists opinions will differ on small points about, for example, the technique of administering ECT. This memorandum therefore represents guidelines rather than hard and fast rules.

Convulsive therapy was initially used in the treatment of schizophrenia; but it soon became apparent that it was certain types of depression that responded rapidly to this treatment, and that in a high proportion of suitable cases ECT effected a complete cure, though it did not prevent a later recurrence of the depression.

ECT was found to be a very safe treatment, but the convulsions carried a risk of fracture. It was to overcome this that a method of administration was developed in which the treatment was given under anaesthesia and with a muscle relaxant to modify the convulsion.

Many patients who suffer from recurrent depression say that they prefer to be treated by ECT because it is the quickest and surest way of relieving intolerable distress. Similarly, the majority of psychiatrists consider ECT to be the treatment of choice for the distraught, depressed patient, especially when life is endangered by the physiological consequences of their disturbed mental state or by suicidal intentions. Few clinicians, much as they may have reservations about physical treatments in psychiatry, would wish to be denied recourse to ECT.

This Memorandum deals with three aspects of ECT:

1. A review of the scientific evidence of the effectiveness of ECT and of any adverse effects.

2. Recommendations about the standards to be observed in the administration of ECT.

3. The medico-legal problems of giving this treatment.

Part I—Effectiveness of ECT—a Review of the Evidence

I. Effectiveness in Depression

The clinical effectiveness of ECT has been widely studied and compared with many other antidepressant therapies. Wechsler, Grosser and Greenblatt (1) attempted to summarize research published between 1958 and 1963 in American, British and Canadian journals. These authors emphasize the heterogeneity of the data but suggest that the mean per cent improvement over all studies gives a reasonably clear picture.

If monoamine oxidase inhibitor drugs and tricyclic antidepressants are considered as separate groups, the figures are as follows:

	No. of studies	*Mean % improvement*
Monoamine oxidase inhibitors	76	50
Tricyclics	55	65
Placebo	25	23
ECT	9	72

These data probably exaggerate the effectiveness of antidepressant treatments, including ECT, since many of the studies included were uncontrolled, and these studies showed higher rates of improvement than those which included a control group.

Wechsler *et al* find an interesting contrast between studies which deal with mainly depressions of recent onset and those which cover mainly chronic depressions.

	Primarily depressions of recent onset	*Primarily chronic depressions*
	Mean % improvement	
All drugs	62	32
Placebo	24	21
ECT	86	37

The superiority of both drugs and ECT over placebo is much less in the latter group.

(i) Major trials

1. Greenblatt, Grosser and Wechsler (2) reported a multicentre trial of 281 depressed patients with a variety of diagnoses over an eight week trial period.

The overall outcome in terms of percentages of patients showing marked improvement was as follows:

ECT	76%
Imipramine	49%
Phenelzine	50%
Isocarboxazid	28%
Placebo	46%

ECT produced significantly more improvement than each of the other treatments at at least the 1 per cent level of significance.

In terms of diagnostic category the superiority of ECT over placebo was greater in the case of 'manic-depressive, depressed' and 'involutional psychotic reaction' patients than in those in the categories 'psychoneurotic depressive reaction' and 'schizophrenic reaction, depressed'.

2. The Medical Research Council trial (3) of 1965 compared the effects of ECT with those of imipramine, phenelzine and placebo in 269 in-patients with primary depressive illness with an initial trial period of four weeks. At this time the percentages of patients in each group with no symptoms or only slight ones, was as follows:

ECT	71%
Imipramine	52%
Phenelzine	30%
Placebo	39%

A six-month follow-up showed that similar percentages of patients had responded to ECT alone and imipramine alone, but that ECT had been generally more effective in the first two months.

In this trial ECT was substantially superior to imipramine at four weeks in female patients, but the response to the two treatments was closely similar in male patients. It is noteworthy that no such sex difference in response to ECT was noted in the trial by Greenblatt *et al* (2), referred to above.

Comment

It appears from these two trials that a higher percentage of patients with depressive illnesses requiring in-patient treatment show a response to ECT than to the most effective antidepressant medications. It appears that the response to ECT is at least as good as, and probably more rapid than, that to tricyclic medication, but the possibility that there is a group of patients who respond only to ECT is still open. The results of the 1965 MRC trial suggest that this may be the case, but if so the characteristics of such a group of patients remain to be identified.

Conclusions concerning the superiority of ECT over tricyclic medication must take into account present uncertain knowledge concerning optimal doses of these drugs. This uncertainty is exemplified in a trial by Wilson, Vernon, Guin and Sandifer (4) which was

conducted in two parts. Analysis of the first phase, in which a mean daily dose of imipramine of 175 mg was given showed ECT to have a significant ($P < 0.05$) superiority. In the second phase, which included a larger number of patients, the mean daily dose of imipramine was 250 mg, and there were no significant differences between the drug and ECT. Some other comparisons of ECT and tricyclic antidepressants (5–7) have shown only small differences or none at all in the effectiveness of these two treatments. However, the patient groups in these trials were smaller than those in the two major studies mentioned above.

(ii) Which type of depression responds to ECT?

Greenblatt *et al* (2) provide some data on the relative effectiveness of ECT and placebo in different diagnostic subgroups of patients. These are as follows, the percentage figures denoting a good response:

	ECT (total n = 63)	*Placebo* (total n = 39)
Manic-depressive, depressed	78%	37%
Involutional psychotic reaction	85%	25%
Psychoneurotic depressive reaction	77%	83%
Schizophrenic reaction, depressed	50%	30%

Some of these percentages are based on rather small numbers, but they suggests that the effectiveness of ECT is much greater in cases of psychotic or manic-depressive depression as defined by the above AMA diagnostic categories.

Several workers (e.g. Hobson (8), Roberts (9), Hamilton and White (10), and Carney, Roth and Garside (11)) have attempted to define the clinical features which predict response to ECT. These studies are in general agreement that such characteristics correspond approximately to the stereotype of 'endogenous depression'. Controlled trials with random allocation of cases are now needed to validate the extent to which these combinations of features predict a specific response to ECT.

That the predictors of response to ECT may be no more than predictors of response to treatment in general is suggested by the work of Kiloh, Ball and Garside (12), who found that essentially the same clinical characteristics predicted response to imipramine. A significant null hypothesis which remains to be disproved is that these are also predictors of the likelihood of spontaneous remission, and that the antidepressant therapies are merely accelerating recovery.

One recent study (12a) in which patients were assessed early after a course of 4 to 6 ECT failed to find any relationship between symptom pattern and response to treatment.

II. Effectiveness in Mania and Hypomania

There are no satisfactory controlled studies of the use of ECT in mania. However, McCabe (13) has recently conducted a retrospective comparison of groups of patients matched for various clinical features treated in the same institution before and after the introduction of ECT. The group of patients who had received ECT spent less time in hospital, were significantly better on discharge, and appear to have shown a better social recovery than those not treated with ECT.

This study suggests that a controlled comparison of ECT with existing treatments of mania and hypomania may be justified.

III. Effectiveness in Schizophrenia

A major study of treatment efficacy in recently admitted patients with a diagnosis of schizophrenia (14) compared ECT with drug therapy alone, drugs plus psychotherapy, milieu (standard ward) therapy, and psychotherapy alone. On a wide variety of indices ECT was shown to be more effective than milieu therapy or psychotherapy alone but consistently less effective than either drug therapy or drugs plus psychotherapy.

These findings suggest that in the treatment of schizophrenia ECT has no general value comparable to neuroleptic medication. The question arises whether there are specific features which respond to ECT.

In the trial by Greenblatt *et al* (2) described above, the difference between the response to ECT and placebo in the group with a diagnosis of 'schizophrenic reaction, depressed' was not significant, and was much smaller than in the groups of patients with psychotic depression.

Miller, Clancy and Cumming (15) compared pentothal anaesthesia with ECT in 20 patients with catatonic schizophrenia and observed no differences in the response of the two groups.

Thus there is little evidence that there are specific features of schizophrenia which respond to ECT. The view of many clinicians that certain features of schizophrenia can be relieved by ECT is a field for further inquiry.

The question whether combined treatment with neuroleptics and ECT may in some circumstances be superior to neuroleptic treatment alone is also an open one. Smith *et al* (16) compared ECT-chlorpromazine with chlorpromazine in the treatment of 44 patients with acute schizophrenic illness. The overall rate of improvement in the two groups was closely similar, but there was a suggestion that the ECT-chlorpromazine group had responded more rapidly in some symptom areas, and there was a tendency for ECT-chlorpromazine treated patients to be discharged more quickly and readmitted less often. Therefore, the question of whether these possible benefits outweigh the side effects of ECT may be another area for further research.

IV. Mechanism of Action of ECT

Since none of the trials of ECT mentioned above was conducted blind, for the obvious reason that patients and raters were aware when the patients were receiving ECT, the findings are not relevant to the question whether the convulsion is the necessary element in the therapeutic effect. A number of investigators have tried to answer this question by comparing ECT with 'pseudo-ECT' (i.e. anaesthesia without the shock, or with the shock modified in some way to avoid a fit).

1. Brill *et al* (17) made a comparison between ECT with anaesthesia and anaesthesia without the shock in 97 patients with diagnoses of schizophrenic and depressive reactions. There were no significant differences between the groups.

2. Ulett *et al* compared ECT (18) with photoconvulsive and subconvulsive shock treatments and a control group in a total of 84 patients. The treatments differed in their effectiveness at the 5 per cent level, but this was mainly due to the superiority of photoconvulsive over subconvulsive and control treatments. The interpretation of this trial is complicated by rather wide variations in pre-treatment ratings in the four groups.

3. Miller, Clancy and Cumming (15) compared ECT with anaesthesia alone and anaesthesia with subconvulsive shock in 40 patients with chronic schizophrenia and observed no differences in response to the three treatments.

4. Cronholm and Ottosson (19) found that a group of depressed patients treated with ECT alone did better than a group treated with ECT and lidocaine (which shortens the duration of the convulsion). However, these patients were not randomly allocated.

5. Robin and Harris (20) reported that a group of 15 patients treated with ECT and placebo tablets did better than 16 patients treated with 'pseudo-ECT' and imipramine (dose not stated). Significant differences on various ratings were reported between the groups, but no details were given, and a behaviour rating scale showed no differences between treatments.

Conclusion

In depressed patients there is suggestive, if not yet unequivocal evidence, that the convulsion is a necessary element in the therapeutic effect. Other possible therapeutic elements, such as the impact of an elaborate procedure (Lowinger and Dobie (21)) and of periods of unconsciousness alone, remain to be accurately assessed. In general, however, the clinical experience of psychiatrists is that patients respond less well to an ECT treatment when a non-convulsive shock is administered.

Unilateral ECT

In recent years there has been considerable interest in the possibility that the undesirable side effects of ECT (e.g. confusion and memory impairment) may be reduced while retaining

the therapeutic effect by limiting the current application to the non-dominant hemisphere. The findings of 29 studies have been reviewed by D'Elia and Raotma (22). These studies are assessed in terms of the clinical impression of the investigators. In 2 studies this was that unilateral non-dominant ECT was somewhat more effective than bilateral ECT, and in 14 studies it was thought to be equal to bilateral ECT, but in 12 studies the investigators' impression was that unilateral ECT was somewhat less effective, and in one study decidedly less effective than bilateral.

From these findings it appears possible that unilateral ECT may be somewhat less effective than bilateral ECT, but its value in relation to the more usual forms of the treatment and to other antidepressant treatments remains to be firmly established.

V. Effectiveness of Other Types of Convulsive Therapy

(i) Indoklon

There are a number of comparisons between ECT and Indoklon-induced seizures. It is claimed that the therapeutic effects are comparable but the memory loss may be less (Small (23)). There appear to be no comparisons of Indoklon with a placebo-treated control group.

(ii) Photoconvulsive treatment

The results of a comparison of photoconvulsive treatment with ECT, subconvulsive treatment and a control group (Ulett *et al* (18)) suggest that the photoconvulsive treatment procedure is at least as effective as ECT in a mixed group of mainly depressed patients, but since anaesthetics cannot be given this would add to the patient's distress at the time of treatment.

(iii) Multiple ECT

Attempts to potentiate the effects of ECT or shorten the duration of the course by inducing multiple convulsions within one session have had disappointing results (Abrams (24)). Side effects are probably increased.

These treatments are (for the most part) seldom used, presumably since they are less agreeable alternatives from the patient's point of view.

VI. Mortality of ECT

In 1959 Barker and Baker (25) conducted a questionnaire survey of 259,000 treatments and identified 9 deaths probably related to ECT. This figure gives a mortality of 0·0036 per cent or 3 to 4 deaths per 100,000 treatments. Impastato and Almansi (26) had reported 8 deaths in 11,000 patients in 1942 and Kolb and Vogel (27) found 4 deaths in 7,207 treatments also in 1942. Assuming a mean of 8 treatments per patient the figure for deaths per treatment from these studies are as follows:

	Deaths per 100,000 treatments
Impastato and Almansi (1942)	9
Kolb and Vogel (1942)	7
Barker and Baker (1959)	3 to 4
Hesche and Roeder (1976)	4 to 5

A recent survey of all ECT treatments given with anaesthesia during one year in Denmark (35) reports only one death in 22,210 treatments in 3,438 series (a rate of 4–5 deaths per 100,000 treatments). Intubation was required in six incidents and only two other complications were reported. This low mortality must be seen in the context of evidence that the mortality of patients suffering from depression may be increased compared to age-matched controls, that the excess of deaths is due both to suicide and to other causes, and that this excess may be reduced by adequate treatment. One study of the mortality of untreated depression from before the ECT era (28) gave a 5-year figure of 11 per cent and a 10-year figure of 15 per cent. A recent 3-year follow-up of 519 patients with depression found that a group of patients treated with ECT had a significantly lower mortality than a group of patients who had received neither ECT nor antidepressants (29).

The mortality rate of ECT with anaesthesia can be compared with that of minor surgery with anaesthesia, thus Tomlin (36) found the

crude death rate of patients receiving anaesthesia for out-patients for dental surgery in England and Wales during 1963–68 was 0·3 per 100,000, and for in-patients it was about six.

VII. Morbidity of ECT

(i) Immediate side effects

Information on the extent to which various effects during the treatment period can be attributed specifically to ECT is available from the comparison between ECT and placebo in the trial reported by Greenblatt *et al* (2).

	ECT	*Placebo*
Headaches	29%	15%
Drowsiness	16%	15%
Confusion	16%	Not reported
Hypotension	16%	26%
Anorexia	13%	Not reported
Weakness	10%	15%
Palpitation	10%	Not reported
Bowel dysfunction	Not reported	15%

Thus, while some 'side effects' are actually more frequent in the placebo-treated group, headaches and confusion appear to be increased in the ECT-treated group.

(ii) Memory loss

Assessment of impairment of memory following ECT is complicated by the observation (Sternberg and Jarvik (30)) that memory functions are impaired in depression and improve with improvements in mental state. Cronholm and Ottosson (31) found that patients who showed the most improvement following ECT experienced least subjective memory impairment. These authors also suggest that ECT impairs 'retention' whereas depression itself is associated with deficiencies in the learning or acquisition process. Squire and Miller (32) found that ability to learn new material was initially impaired and then recovered in the hours following each shock treatment, and that ability to retain material for 24 hours was more impaired following the fourth than after the first shock treatment. Squire (33) has demonstrated that following a course of 5 treatments there is an impairment of ability to recall events from the remote past and that this impairment has not changed in the 24 hours following the last treatment.

The question of the precise duration of objective memory loss following ECT, and the possibility that there may be relatively long-term or even permanent losses had been too little investigated. Squire and Chace (34) could find no objective impairment of memory using a battery of tests of delayed and remote memory 6 to 9 months after ECT. However, patients who had received bilateral ECT rated their memory as impaired significantly more often than those who had received unilateral ECT or had been treated in other ways.

Summary

1. There is substantial and incontrovertible evidence that the ECT procedure is an effective treatment in severe depressive illness.

2. The most comprehensive studies suggest that ECT is at least as effective as the most effective antidepressant medications, and exerts its effects more rapidly.

3. ECT is most effective in depressive illnesses of 'endogenous' type, and this is probably a characteristic which it shares with tricyclic antidepressant drugs. But some studies suggest that the main criteria for preferring ECT to other types of antidepressant therapy should not be type of depression but severity of depression and the necessity for an immediate response.

4. The question whether there are specific types of depressive illness which respond only to ECT is an open one.

5. Whether unilateral or bilateral ECT is more effective, and if so under what circumstances is still uncertain.

6. The usefulness of ECT in the treatment of mania and hypomania is undecided.

7. ECT is generally less effective in schizophrenia than neuroleptic medication. The grounds for its use appear to be more restricted in this condition than in the case of depression.

8. There is good if not conclusive evidence that the induction of a convulsion is necessary for the therapeutic effects of ECT.

9. The use of ECT is associated with a small mortality, probably in the order of 3 to 9 per 100,000 treatments; it is just as low when anaesthesia is given. Mortality is much higher in cases of depression inadequately treated by other methods.

10. Current evidence suggests that the memory impairments which follow ECT diminish fairly rapidly with time following the last shock treatment, but may increase, though transiently, with number of treatments. Long-lasting memory impairments have not been identified, but further research on possible long-term effects of ECT is required.

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Part II—Standards of Administration of ECT

1. Who decides that a patient needs ECT?

Except in an emergency this is usually decided by the consultant responsible for the patient, in discussion with his junior staff and the nursing and paramedical staff.

In the consultant's absence the senior registrar should be able to decide on the need for ECT.

A psychiatrist of registrar or senior house officer grade is perhaps too junior to decide on the need for ECT. When, under exceptional circumstances, he considers that ECT should be given he should consult his senior registrar or consultant, directly or by telephone.

2. Every patient having ECT should be anaesthetized and given a muscle relaxant by an anaesthetist. The responsibility for seeing whether a patient is physically fit for ECT must rest primarily with the consultant psychiatrist, after discussion and agreement with the anaesthetist if there is any doubt about a patient's fitness. The psychiatrist must weigh any possible disadvantages of ECT against the probable benefits of treatment. A full medical history is taken and physical examination carried out, with particular reference to cardiovascular and respiratory status, allergy and previous response to anaesthesia, usually by a junior member of the firm. Chest X-ray or ECG may sometimes be required, and advice obtained from a physician if doubt exists.

It is clearly important for everyone's sake, including the patient's, that a good working relationship should exist between anaesthetist and psychiatrist. It is reasonable for the anaesthetist to question his psychiatric colleague about the patient's physical state and the results of his examination, and to examine the patient himself if he wishes.

There are a number of relative contraindications to ECT. The more important are a recent myocardial infarct or cerebro-vascular accident, and severe pulmonary disease. Old age itself is no contraindication, and depressed patients in their 80s and 90s have been successfully treated.

3. Recommended procedure

ECT should if possible be administered (both to in-patients and to out-patients) in a special room to which the patient comes. The patient requires a comfortable waiting room, provided with magazines, etc. The ECT room should have two doors, one from the waiting room, and a separate door into a recovery room, so that the waiting patient does not see the treated patient.

In the ECT room are the anaesthetist, the psychiatrist and the nursing staff. Nursing staff ideally should consist of a charge nurse experienced in ECT and two junior nurses.

The patient may need to be reassured, not only while waiting but also as he enters the

room. The anaesthetist will want to check that the patient has had nothing to eat or drink during the previous 5 hours. A patient who is unduly anxious before treatment can be calmed by means of a tranquillizer, given 1–2 hours before treatment. Dentures are usually taken out and shoes taken off.

The anaesthetist should be able easily to see the results of the full physical examination in the patient's notes. Included with the notes is the ECT form containing the patient's written consent. It is helpful, from the point of view of subsequent treatments, for this form also to include salient points from the physical examination, the patient's current drugs and a record of previous ECTs, with the dosages of anaesthetic and muscle relaxant given, and the intensity of the last convulsion. In addition, a book should be provided in which the anaesthetist and psychiatrist record details of each ECT given.

The dangers of ECT are few, and mainly cardiac, but emergency equipment should be present in the ECT room. This should include a sucker, tracheal tubes, reserves of oxygen, telephone and, ideally, a defibrillator.

4. Anaesthetic induction

Atropine is given first, usually intravenously. This not only dries up secretions but lessens the risk of arrhythmias and of vagal overstimulation.

The anaesthetic. Thiopentone is often preferred to methohexitone because of its longer action, allowing the patient to sleep longer and therefore to be more relaxed on waking. Patients should if possible be allowed to waken naturally, rather than be roused by a nurse, but space does not always permit this.

The muscle relaxant. A muscle relaxant such as Scoline is given immediately after the anaesthetic. The dosage varies, depending on a patient's size and medical condition. It is important that the dosage should not be so large that the physical convulsion is no longer apparent.

There is evidence (see Part I) that the efficacy of ECT is dependent upon the seizure; and clinical experience suggests that a sub-convulsion or non-generalized seizure is not only therapeutically less effective, but may be positively harmful. It is therefore standard practice to ensure that a bilateral convulsion occurs with both bilateral and unilateral ECT.

Rarely a patient is deficient in pseudocholinesterase, the enzyme concerned with metabolizing Scoline. The paralysing effect of Scoline is then prolonged, so that return of natural respiration may be delayed, sometimes for several hours.

If there is reason to expect a patient to be agitated and disturbed after ECT it may be helpful to give an intravenous tranquillizer with the anaesthetic.

The patient is now oxygenated. There is evidence that this procedure lessens possible memory disturbances after ECT (1). A mouth gag is inserted.

5. The type of ECT given

The evidence that unilateral ECT, given to the non-dominant hemisphere, probably produces less memory disturbance than bilateral ECT, or than unilateral ECT given to the dominant hemisphere, must be taken into account when deciding to give ECT.

Many psychiatrists feel that for severe depression bilateral ECT is preferable, that it acts more rapidly, and fewer treatments are therefore required than with unilateral ECT in such cases. However, reports on this are contradictory.

As the therapeutic effect of ECT is probably dependent upon producing a generalized convulsion, the quantity of current should be just enough to induce one. There is also good evidence that memory disturbance following ECT is directly related to the amount of current given (2, 3) (this is usually measured in joules, the energy produced by a current of a given duration).

There are a variety of machines for giving ECT. One with a choice of waveforms and with automatic timing is preferable to one without such calibrations since calibration allows the current to be kept at the minimum needed to produce a convulsion. If a convulsion does not occur the procedure should be repeated, up to three times, until a convulsion occurs. A sub-convulsion is liable to produce anxiety, headache and other side effects.

The position of the electrodes. It is claimed that, by positioning electrodes over the frontal or occipital areas instead of the fronto-temporal areas generally used, memory disturbance is lessened. There is no incontrovertible evidence that this is so. For unilateral ECT the electrodes are usually placed over the mastoid and temporal regions of the same side.

6. Recovery

After the convulsion the patient is oxygenated —with an airway *in situ*—and remains in the ECT room under the care of the anaesthetist until respiration returns and he has regained consciousness. He needs close nursing observation at this time, because this is when patients may choke, stop breathing or suffer a cardiac arrest.

He is next moved out to the recovery room where a qualified nurse should be in attendance. Reassurance and explanation when the patient comes round are important and help to lessen agitation. Although each patient has treatment alone, he will, because of lack of space usually recover in the company of others. Once he has woken completely and is orientated, he is helped from the recovery room to a comfortable chair in the anteroom or back to his bed in the ward, where he is given tea and sandwiches, and usually rests for an hour or so. An analgesic may be helpful if headache is pronounced or prolonged.

Side effects of ECT are more likely to be troublesome if a patient is overanxious before treatment. This can be decreased by pre-treatment sedation and reassurance or by giving a tranquillizer parenterally immediately after the anaesthetic (4). During the recovery period, anxiety will be lessened by reassurance and explanation from a nurse.

7. Number of treatments

There is no set number of treatments. Each patient should be seen by a psychiatrist—consultant or senior registrar—at least once a week to assess progress and to decide whether he needs more ECT.

The usual number of treatments is about 6, but in refractory cases more may be given over a period of several weeks.

In the past it was common to give two extra ECTs after a patient seemed to have recovered from his depression. Some psychiatrists now prefer to give antidepressant drugs to prevent an early relapse.

8. Frequency of ECT

Daily or twice daily convulsions (although occasionally still used in otherwise uncontrollable mania) do not increase the rate of recovery from depression. Most units give ECT twice a week, and this is the practice we recommend at the beginning of treatment. Spacing of ECT closer than 48-hour intervals probably increases memory disturbance with little or no additional therapeutic gain.

9. Out-patient ECT

There is no contraindication to out-patient ECT, provided that the total circumstances of the patient are taken into consideration, including age, physical state, distance from hospital to home, and availability of a responsible person to take the patient home. The psychiatrist administering ECT is responsible both for assessing these factors and deciding when the patient is fit to leave after treatment.

10. Training of psychiatric staff administering ECT

It is important that psychiatrists administering ECT should be properly instructed in its use, value, side effects, maintenance of respiration and the management of emergencies, before they assume responsibility for carrying out treatment. Equally, junior nursing staff need instruction by experienced colleagues.

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Part III—Medico-Legal Aspects of ECT

1. Consent

We advise that consent for ECT should be written and that the standard consent forms, as suggested by the Department of Health and Social Security and the Defence societies, are used. Consent is a matter between the patient and doctor and it is a medical responsibility to ensure that the patient has been given an explanation of the procedure, benefits and dangers of ECT. The doctor and the patient should sign to the effect that such explanation has been given. The consent must be obtained in the case of all Informal patients, and should be asked for in all compulsorily detained patients who, if they are able to understand and are willing, should sign a consent form.

(a) *Duration of consent*

It is generally accepted, provided it is explained to the patient beforehand, that the one signature of the patient can apply to a series of ECT treatment (normally up to eight separate treatments, though more may be needed) and separate consent forms are not required for each application. The one consent would not, however, apply to a subsequent series if there was any interval between them. The extent of the treatment for which consent is requested should be determined by the doctor in consultation with the patient from the onset. The response of the patient to treatment should be reviewed at intervals during the series of treatments. A patient may withdraw consent at any stage.

(b) *Unwillingness of a patient to undergo ECT*

For those patients who are unwilling to undergo ECT the alternative forms of treatment should be reconsidered. If the patient is Informal and compulsory treatment is not indicated, then ECT cannot be given. If ECT is considered essential but the patient is unwilling, the Responsible Medical Officer (consultant in charge of the case) must consider whether there are grounds for compulsory treatment and whether ECT can safely be administered. Where treatment is given against a patient's wishes, present legal advice is that Section 26 should be applied and not Section 25 (or the equivalent Section in Scotland or Ireland). ECT is a treatment involving risk mainly from the anaesthetic and muscle relaxant, and the College recommends that, except in an emergency (when the consultant's authority alone is sufficient) there should be two consultant opinions as to the necessity for compulsory ECT. Further, it is recommended that the nearest relative should be consulted, the procedure outlined, and approval in writing obtained. It is to be appreciated that the nearest relative signs the application form and also has the right of discharging the patient detained under Section 26. Consultation should take place with staff who are to assist or give the patient ECT. This may include the ward nursing staff and the team who actually administer ECT to the patient.

(c) *Patient unfit/unable to understand what is being asked*

There may be patients who are unable to understand the nature and purpose of the treatment proposed and are, therefore, unable to give consent. For the purpose of administering ECT, as the patient is unable to give valid consent, he should be treated as unwilling and the procedure in (b) above applied. It is to be appreciated that no person, other than the patient, can give consent in the case of an Informal patient. Compulsory treatment under the Mental Health Act can only be applied to treatments directed to the alleviation of psychiatric conditions, and cannot be used for the compulsory treatment of physical conditions.

(d) *Relatives' consent*

Except in the case of minors relatives cannot give valid legal consent to any treatment, whether for psychiatric or physical conditions. Authority to apply treatment against the wishes of a patient rests within the Mental Health Act. 'Nevertheless, the usual practice of obtaining the relatives' written approval is strongly advised out of consideration both for the patient and for the relative; the relatives' co-operation in, and understanding of, the

proposed treatment will be important in the subsequent care of the patient. If the relative disagrees that ECT should be administered, but the consultant decides to give it, he is advised to make a record of the relatives' objections and of the reasons he gave them for proceeding with the treatment.'

2. ECT units

It is the practice in many hospitals to set up a separate ECT Unit for the whole hospital with a separate medical and nursing team in charge of the Unit to which patients from all consultants are referred. The ultimate responsibility for prescribing ECT and for reviewing patients between treatments rests with the referring consultant. There should be two doctors present when ECT is given, one of whom should be experienced in anaesthesia.

3. General

The above report and recommendations are presented as broad guidelines to the medico-legal aspects of the administration of ECT to psychiatric patients and are not all embracing. Medical staff are advised to contact their Defence society if they have any doubts concerning the question of consent.