

Video news

Videotape review

Electroconvulsive therapy: the official video of the Royal College of Psychiatrists Special Committee on ECT

The Royal College 1991 audit of electroconvulsive therapy (ECT) found widespread deficiencies in psychiatric practice. Improved training and supervision were recommended with active involvement of consultant psychiatrists responsible for ECT clinics. The Royal College ECT Committee has now started courses for consultant supervisors and this official videotape has been produced with a teaching pack. A new edition of the College guidelines on ECT is also due out later this year.

The video is written and produced by Toni Lock, one of the members of the ECT Committee, who jointly edited and presented it with Chris Freeman, the Chairman of the ECT Committee. It is professionally made and is designed to be viewed in sections with discussion points. It contains recommendations about the ECT suite, nursing, anaesthetic and psychiatric practice.

Much of the guidance is familiar, such as the recommendation of bilateral ECT for the vast majority of patients. What is new is the emphasis upon “stimulus dosing” or “dose titration” whereby the dose of electricity is individualised for each patient. It is now known that patients vary substantially in the dose of electricity needed to produce a generalised seizure. The therapeutic effects are produced by a dose which is moderately above the seizure threshold while cognitive side-effects are likely if the dose is markedly suprathreshold. Consequently, a dose that is too low to produce a seizure in one patient may be too high for another so that unnecessary cognitive side-effects are produced. Seizure threshold tends to be higher in men than women, in old people rather than young people, and with bilateral rather than unilateral electrode placement.

The dose of electricity is best described in units of charge (Coulombs) rather than energy (Joules) because the former is independent of the variable impedance of patients and is more closely related to both the desired therapeutic and the unwanted cognitive effects. The video provides some background information on the physics of ECT but I suspect that many viewers will be unnecessarily confused by references to calculations of electrical energy as well as charge. I was also puzzled by the sample calculation given for the viewer to derive a

measure of charge by multiplying the stimulus parameters of amplitude, pulse width, frequency and duration. When I multiplied $0.8 \times 1.25 \times 35 \times 4$ the figure I arrived at was 140 milliCoulombs (mC), but the answer that is given is 148.75 mC. Viewers who are struggling with the physics at this stage will not be helped by hearing seizure threshold described as the amount of electrical energy needed to produce a generalised seizure, while the measurement is given in units of charge. I presume the aim behind the theoretical information is to encourage psychiatrists to think more actively about the stimulus which they are giving to patients. I am not convinced that it will be clear enough for most viewers.

The College has reservations about the range of ECT machines currently available. The British company Ectron supplies most British clinics and although the variable dose range of the current model is adequate for most patients, there will be occasional patients whose optimal dose falls outside the range, so that a minority may either fail to have adequate seizures or may be given higher doses than necessary. An Ectron machine with a wider dose range will shortly be available. Neurotronic machines are alternative British models which have a wider range but are less user friendly as the dose of electricity has to be calculated manually.

Modern machines have a test facility which indicates that the impedance between the electrodes is sufficiently low to give the correct dose to the patient. The College recommends that the test facility is used to confirm that the correct dose can be given and a nurse is asked to change the switch from test mode to ECT mode and then to press the treatment button so that the psychiatrist does not move the electrodes inadvertently. For the current Ectron model (Ectonus Series 5) the use of the switch in test mode seems to me to be an unnecessary complication as the same test current is passed when the switch is in ECT mode. I would have thought it was easier to leave the switch in ECT mode. The recommendation that a nurse is asked to press the treatment button on the machine rather than the psychiatrist pressing the button on the hand-held electrodes is a departure from common practice and it is notable that the psychiatrist in the video appears to deliver the treatment dose herself rather than asking a nurse to press the button on the machine.

There is some uncertainty about the optimal duration of seizures, but the College recommends that 20–50 seconds are aimed for. It is suggested that seizures are timed from the end of the applied stimulus although the College audit appeared to advocate

timing from the start of clonic movements. In the event of inadequate seizures, the ECT technique should be reviewed to ensure good electrode contact and restimulation of the patient should occur with the options of increasing the dose of electricity and hyperoxygenating the patient.

Improved documentation is recommended and this includes recording the seizure duration, therapeutic response and side-effects, all of which would be important in aiming to give the optimal dose. Good communication between ECT clinic staff and clinical teams is essential if the former are to take responsibility for determining the dose given to an individual patient. A review of junior doctors' ECT rotas may also be necessary to provide greater continuity of care. Good communication with the patient and their relatives should not be forgotten and it is suggested that an information sheet would prove useful and could also improve the process of informed consent.

Despite my reservations, I think that most trainees and seniors concerned with the treatment or prescription of ECT will find much in this video that is informative. However, the advice is often general such that specific guidelines are not given, for example, about how to individualise the dose for each patient or what to do in the event of inadequate

seizures. Consequently, more specific policy details will need to be developed by individual ECT clinics.

DAVID GEANEY

Tape details

Ratings	Audience
*** Highly recommended	P Psychiatrists
** Recommended	M Multidisciplinary
* Worth looking at	UG Undergraduate
0 No rating	PG Postgraduate

Electroconvulsive Therapy: Official Video of the Royal College of Psychiatrists

Production:	Fishers Audio, Chester
Distributor:	Royal College of Psychiatrists, London
Details:	Video; 60 mins; 1993; sale £15 from Mr. D Jago, Royal College of Psychiatrists, 17 Belgrave Square, SW1X 8PG.
Rating/audience:	** P, UG, PG.

Child protection practice

A series of ten conferences are to be held around Great Britain from December 1993 to December 1994. These will disseminate the findings of Dr Peter Reder, Sylvia Duncan, and Moira Gray who used a systemic perspective to study the cases at the centre of 35 inquiry reports into child deaths. These results were published in *Beyond Blame: Child Abuse*

Tragedies Revisited. The conferences will give professionals an opportunity to hear the findings in detail, consider the implications for child protection practice and discuss how assessment of risk can be more effective. Further details from "Beyond Blame", PO Box 74, Haslemere, Surrey GU27 2YP (telephone/fax 0428 641425).