

Electro Convulsive Therapy: Survey covering the period from January 2002 to March 2002, England

This statistical bulletin presents information on a survey of patients treated with Electro-Convulsive Therapy, in England, during the three month period January to March 2002.

Key Facts:

In the period January to March 2002

- There were 12,800 administrations of Electro-Convulsive Therapy (ECT) compared to 16,500 in January to March 1999.
- 2,300 patients received ECT treatment compared to 2,800 in 1999.
- There were 700 male patients receiving treatment, compared with 1,600 female patients.
- 47% of female patients and 45% of male patients receiving ECT treatment were aged 65 and over.
- 73% of ECT patients were not formally detained under the Mental Health Act 1983.
- Of the 600 patients formally detained while receiving ECT treatment, 60% did not consent to treatment.

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Bulletin 2003/08

Published 2003

ISBN 1 84182 709 6

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1. Introduction

1.1 The Bulletin presents the results of a survey on the use of Electro Convulsive Therapy (ECT) in England in 2002. This follows a similar survey in 1999 but before that no national survey had been conducted since 1991. The purpose of the 2002 survey is to provide an updated snapshot of the levels of ECT use both in terms of the number of administrations of ECT and in terms of the numbers and the characteristics of patients treated by ECT. Background on the use of ECT can be found in Annex A.

1.2 This survey was carried out over a three month period from January to March 2002 and covered all English NHS Trusts providing mental health services and patients in private hospitals registered to detained patients under the Mental Health Act 1983 the majority of whose treatment has been commissioned by the NHS.

1.3 To improve on the range of information collected in 1999, ECT clinics were asked to record two additional activities for the 2002 survey:

- mental disorder diagnoses under which patients received ECT treatment.
- length of ECT course of treatment.

Information on the numbers of young people in receipt of ECT is also more detailed than in 1999, with a separate age band for 16 to 18 year olds.

2. History of ECT data

2.1 The KH17 Körner central return was discontinued after 1990-91 to reduce the burden on the NHS, since it was expected that more useful information on ECT would be obtained from Hospital Episode Statistics (HES). Using HES data would allow analysis by factors such as age and sex of patient, diagnosis, length of stay and so on. Since April 1996, the ethnic group of patients should also be recorded.

2.2 However, lack of recording of ECT administrations on HES means that the data are incomplete. The reasons for poor recording on HES are:

i) That many trusts do not realise that ECT should be recorded as an operative procedure.

ii) Mental Health Trusts which do not usually carry out operations sometimes do not appreciate that there may be ECT codes relevant to them, and therefore leave them out.

iii) A significant proportion of ECT treatments may be given in out-patient or day case clinics which are not yet covered by HES data.

2.3 HES data quality has generally improved over the last three years, although the use of ECT is still under recorded. A comparison between survey and HES data on ECT is given at para 3.25.

3. Overview of the use of ECT

ECT administrations

3.1 Figure 1 shows that administrations of ECT in NHS and private hospitals have been falling steadily since 1990-91. Tables 1, 2 and 3 in Annex B show that during the quarter January to March 2002, there were 12,800 ECT administrations compared with 16,482 in the same quarter in 1999 (a drop of 22%). Most administrations (94%) in 2002 took place within NHS facilities. Private facilities accounted for 714 ECT administrations, which were marginally down from 726 in 1999.

3.2 A decrease in the number of administrations is consistent with a decrease in the number of patients treated from 2,835 in 1999 to 2,272 in 2002 (a drop of 20%). NHS patients decreased from 2,706 in 1999 to 2,147 in 2002. However, the decrease in patients receiving treatment in private facilities was more marginal - from 129 patients in 1999 to 125 in 2002.

3.3 The number of in-patient ECT administrations in the NHS in 2002 has fallen sharply compared to the 1999 survey, with ordinary admission administrations dropping from 12,895 to 9,488 and day cases from 502 to only 295 in 2002. The number of out-patient treatments dropped more marginally from 2,284 in 1999 to 2,251 in 2002. As a result the proportion of all administrations which were in an out-patient setting increased from 14% in 1999 to 19% in 2002.

3.4 Within private facilities, of the 714 administrations in 2002, 621 were on in-patients compared with 612 in 1999 whereas the number of out-patient administrations dropped from 114 in 1999 to 76 in 2002, a decrease of 33%.

Only 11% of private ECT administrations in 2002 were on out-patients.

3.5 The decrease in ECT administrations almost entirely reflects a similar decrease in number of patients receiving treatment. In NHS and private sectors combined the average number of administrations per patient remained fairly steady at 5.6 in 2002 compared with 5.8 in 1999. Administrations per NHS patient also fell from 5.8 to 5.6. Across the regions, NHS patients generally received an average of between 5 and 6 administrations with the highest number being 6.2 in Northern & Yorkshire and the lowest 4.8 in Eastern.

3.6 In the private sector the number of administrations

per patient was almost unchanged at 5.7 in 2002 compared to 5.6 in 1999. Numbers are too low to draw many conclusions about regional comparisons but the highest number of administrations per patient was 7.0 in the South East, with 27 patients treated. There were no private administrations of ECT reported in the Trent and Eastern regions, and only three patients in South West and one in West Midlands received ECT.

ECT Patients

3.7 Table 4 shows that of the 2,272 patients in England who underwent ECT during the survey the number of women was 1,608 compared with 1,923 in 1999 (Table 4a) but the proportion of women stayed at around 70% of all patients. In 2002 753 treated women were 65 or over compared with 848 in 1999, a decrease of around 11% compared with a lower drop for men in the same age group (8%).

3.8 The 753 women aged 65 and over in 2002 represented 47% of all women treated compared with 300 men (45%). Compared to the 1999 survey where 44% of women and 36% of men were 65 and over, the proportions of older people treated in the two sexes have become closer.

3.9 Table 5 in Annex B and

Figure 1 : ECT treatments administered in England 1985 to 1989-90, 1998-99, 2001-02

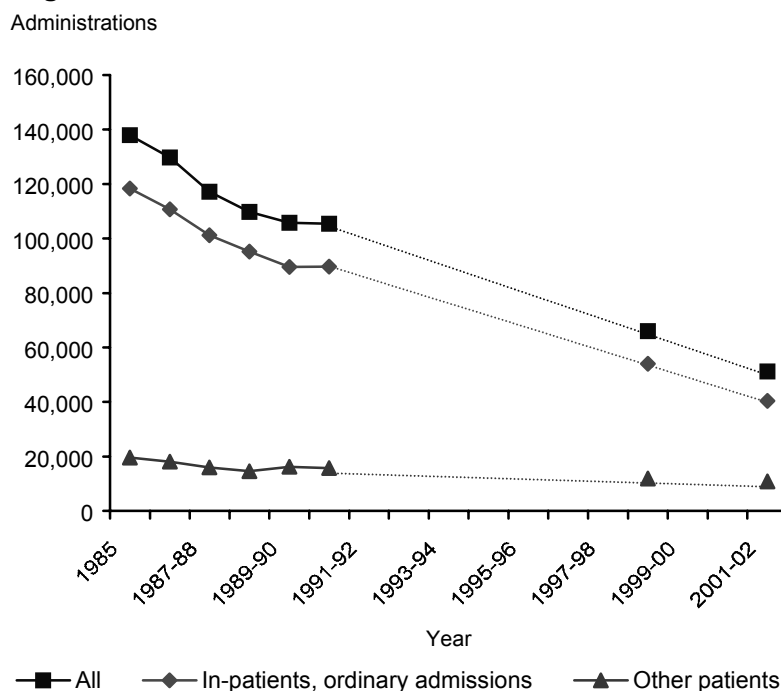


Figure 2 show analysis of the rates per 100,000 population. This shows that the proportion of women receiving ECT treatment (6.4 per 100,000) is significantly higher than that for men (2.8).

3.10 The difference between the population rates for females and males was apparent in nearly all age groups recorded in the 2002 survey. In all ages, except for those under 25, the male ratio was just over half that for females, similar to the 1999 survey. 16.6 per 100,000 women aged 65 and over underwent ECT, compared to 9.1 per 100,000 men aged 65 and over. For 19 to 24 year old males, however, the rate at 1.3 per

100,000 was just above that for females (1.1).

3.11 Table 5 shows that in England, during the survey period, 4.6 people per 100,000 of the population underwent ECT, compared with 5.8 in 1999 (Table 5a). The rate was also lower for females (6.4 per 100,000 women) compared with (7.7) in 1999.

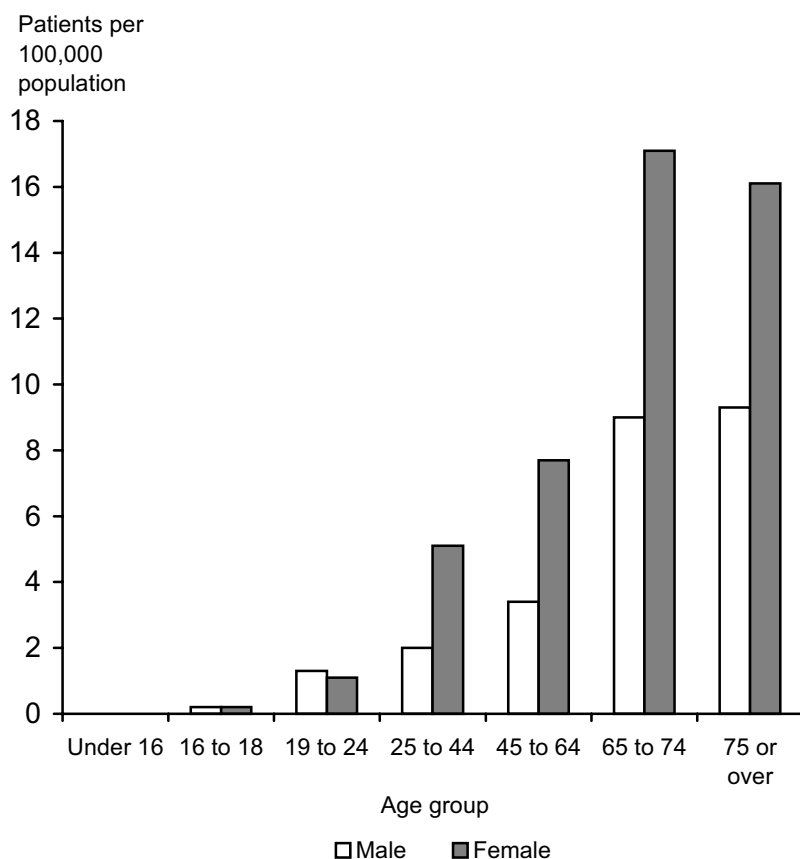
3.12 2.8 per 100,000 men received treatment compared with 3.8 in 1999. For both sexes, the rate also increased with age, with 13.5 people per 100,000 population aged 65 and over undergoing ECT treatment compared to 5.6 for 45 to 64 year olds and only 1.2 for 19 to 24 year olds.

3.13 The Regional Office level data is broadly in line with the national picture. There were also no significant variations between the rates of treatment in different Regional Office areas between 1999 and 2002. The region with the highest rate was North West where 6.2 people per 100,000 population received treatment; the lowest rate was 3.5 in London.

3.14 Table 6 in Annex B shows the number of administrations of ECT to patients who finished their treatment over the three months period in 2002. This information was not collected as part of the survey in 1999. Figure 3 shows that of the 1,641 patients who finished their treatment the majority of patients 591 (36%) received 6 to 8 ECT administrations. 190 patients (12%) received only 1 to 2 ECT administrations and only 39 patients (2%) received more than 16 administrations.

3.15 This pattern was consistent across both the men and women. Of those patients who finished their treatment 1,142 (70%) were women and 499 (30%) were men. The proportion of women receiving 1 to 5 treatments is greater (34%, 384 women) compared with men (29% 147 men). The proportion of men receiving 13 or more administrations (8%, 41 men) was

Figure 2 : Patients in ECT survey survey per 100,000 population, by age group and sex



marginally higher than that for women (6%, 70 women).

3.16 There were more people receiving over 16 ECT administrations in London (25 out of which 22 were men) than in any other region. Other regional differences were less marked.

Consent to treatment

3.17 The number of patients receiving ECT treatment during the survey period who were not formally detained under the Mental Health Act 1983 had decreased to 1,656 from 2,126 in 1999 in line with a decrease in number of ECT patients (Table 7). Nearly all of the informal patients (98%) consented to

treatment, with 26 (1.6%) of them being treated as an emergency, compared with 30 patients in 1999.

3.18 The number of formal patients also decreased to 616 from 709 in 1999. The proportion of formal patients who consented to treatment has remained fairly flat at 28% compared with 29% in 1999. There were 76 patients treated as an emergency, and 370 (60% of detained) patients who did not consent to treatment but were treated after a second opinion was obtained. The latter figure will include those patients who are unable to consent because of the serious nature of their illness. As a proportion of all ECT patients, those not

consenting represented about 16%.

3.19 Table 7 and Figure 4 compares the numbers of detained and informal patients, broken down into consenting, emergency and non-consenting categories.

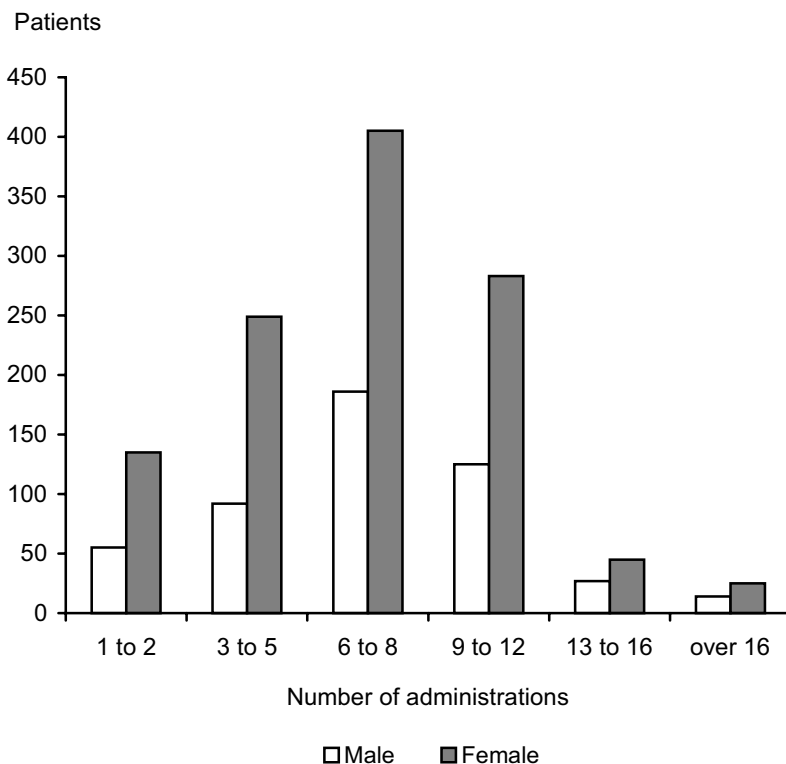
Ethnicity

3.20 Table 8 in Annex B provides data by new ethnic Census groups and shows that, during the 2002 survey period, 78% of patients receiving ECT treatment were white British, Irish or from other white background. The spread of the ECT patients amongst the various ethnic groups was broadly similar to the spread seen in the general population. However, the category ‘not stated’ accounted for 18% of all ECT patients in this survey, more than two fold the rate in the 1999 survey (Table 8A).

3.21 Comparing only those patients receiving ECT whose ethnic origin was reported, 96% were white, similar to the results from the 1999 survey. However the proportion of the general population who are white is slightly down to 90% compared with 92.7% in 1999.

3.22 The ethnic group with the highest rate of ECT patients per 100,000 population was ‘White’, with about 4.0. This has remained fairly flat since

Figure 3 : Patients in ECT survey who finished treatment, by number of administrations and sex



1999. The lowest rate was about 0.9 per 100,000 population from the 'Mixed' race group. However, the rates for this and some other ethnic groups were based on very small numbers of patients.

Diagnosis

3.23 Data was collected for the first time in the 2002 survey. Table 9 shows that of those patients given a diagnosis; 1,626 (81%) had a diagnoses of mood disorder (F30-F39) and the majority of these patients were women (1,161). The next most common category was schizophrenia, schizotypal and delusional disorders (F20-F29) with 129 patients. The total number of patients who had

any diagnoses was 2,003 compared with 2,272 of all patients who received ECT treatment.

3.24 The Regional data indicates that for all regions and both sexes the majority of patients were assigned diagnoses of mood disorder (F30-F39).

ECT data in HES

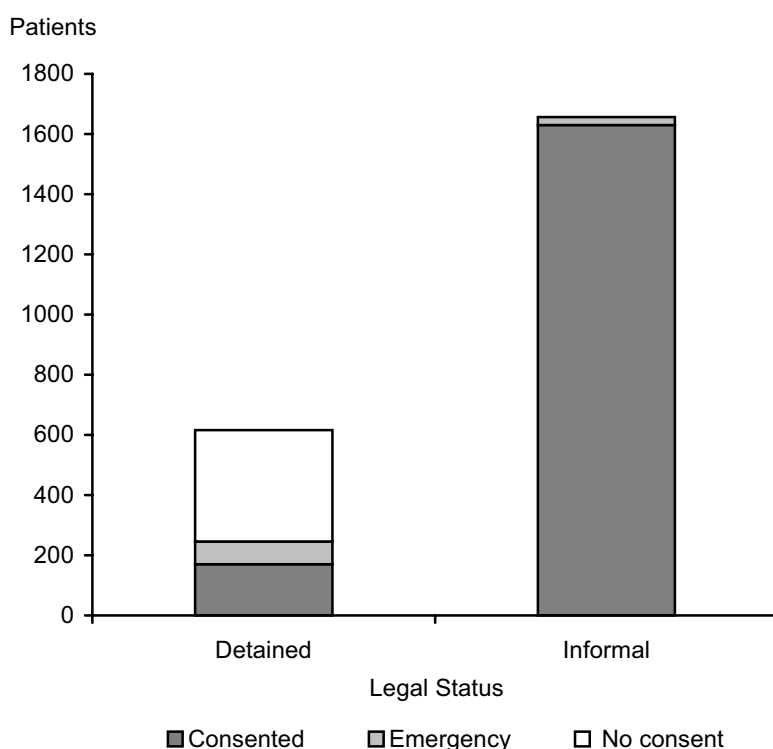
3.25 Table 10 in Annex B, which compares survey data with HES data from the last quarter of 2000-02, shows clear evidence of the inadequate recording of ECT data on the HES system. HES data quality has generally improved over the last three years, although data on the number of ECT administrations appears still

to be incomplete. Finished consultant episodes are not exactly equivalent to the numbers of patients treated (because a few patients will have repeat episodes), but it is clear that the HES records of 964 in-patient ECT episodes in Q4 of 2001-02, are low compared with the higher survey figure of NHS patients receiving treatment (2,147).

3.26 There are some differences in coverage which help to explain part of the gap between the survey figure and the HES estimate. About 80% of NHS ECT administrations are to in-patients (as opposed to day case or out-patients). If we apply this percentage to the survey count of 2,147 to estimate the number of NHS in-patients treated we get only 1,685 in-patients which can be compared with the HES figure of 964 for in-patient FCEs.

3.27 The HES estimate is still not directly comparable to the survey figure for number of in-patients because the HES estimate covers those whose in-patient episode is completed while the survey figure also includes those remaining in hospital. However, the survey data (Table 6) show that about three-quarters of patients receiving ECT completed their treatment in the period. As the HES FCEs represent only 57% of the survey figure for NHS in-patients treated, HES still appears to

Figure 4 : Method of consent by legal status of patient



significantly under-estimate activity.

3.28 The variations of patients within the age groups in HES are similar to those reported in the survey with the majority of patients receiving treatment in the 45 to 64 age group. The proportion of women receiving treatment is also higher in HES, which are similar to the results from the survey.

3.29 Comparison of the age and sex breakdowns of the ECT survey data and the HES data reveals remarkably similar proportions. Overall there appears to be a general improvement in the quality of ECT data compared with the last survey.

4. Further information

4.1 Press enquiries should be made to:

Press Office
Department of Health
Richmond House
79 Whitehall
London
SW1A 2NS

4.2 Any questions concerning the data contained in this publication, or requests for information, should be addressed to:

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4.3 Further copies of this bulletin can be obtained from:

Kevin Downey
SD2C
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London SE1 6LH
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4.4 Brief extracts from this publication may be produced provided a reference is given.

4.5 Information on other Statistical Publications together with an increasing number of statistics can be found at:

<http://www.doh.gov.uk/public/stats1.htm>

Annex A: Background information

Index

- 1 Background to Electro-Convulsive Therapy
- 2 Legal safeguards for ECT use

1. Background to Electro-convulsive therapy

1.1 Electro-Convulsive Therapy (ECT) is a treatment involving the passage of an electric current across the brain. The treatment is only administered to an anaesthetised patient who has also been administered a muscle relaxant. The electric current induces seizure activity in the brain which is necessary for the therapeutic effect of treatment.

1.2 ECT in the past was used in a wide range of conditions but now tends to be used in a more restricted way. It is particularly indicated in very severe, generally psychotic, depression which is life-threatening if left untreated. People who are this severely depressed may refuse or be unable to eat and drink, with a consequent high mortality, as well as being at very high risk of suicide. ECT produces a faster onset of therapeutic action in such cases than is the case with drug treatments.

1.3 ECT also has a, more limited, place in the treatment of other disorders such as catatonia, mania, neuroleptic malignant syndrome and schizophrenia. Its role in these latter conditions is generally when drug treatments have proved ineffective or for some reason inadvisable.

1.4 Adverse effects of ECT include the risks associated with a brief anaesthetic. The main side effect is that of memory impairment, both of events before and after a course of treatment. Depressive illness itself also causes major memory impairments. There is no evidence that ECT causes brain damage and no good evidence of any long term memory problems. ECT also can cause headaches, nausea and occasional brief confusion.

1.5 A significant proportion of ECT treatments may be given in out-patient or day case clinics which are not covered by the current Hospital Episode Statistics (HES) data collection. A new coding guidance (DSCN 12/98/P11) should improve the general quality of HES information, although data on the number of ECT administrations per patient may still be incomplete. The Royal College of Psychiatrists issued further guidance on the use of ECT, and a joint letter signed by the President of the College and the Chief Medical Officer was sent to all consultant psychiatrists, to improve the standards of clinical arrangements. clinics.

2. Legal safeguards for ECT use

2.1 At present, section 58 of the Mental Health Act 1983 provides special safeguards

for a range of treatments administered to detained patients, including ECT. In short, it can only be administered if either:

- a) the patient consents or
- b) where the patient does not consent, or a doctor certifies that the patient is mentally incapable of consenting or refusing, the responsible medical officer must seek a second opinion from a Second Opinion Appointed Doctor, justifying its use.

2.2 Patients who have not been formally admitted under the Act may be given ECT if they agree voluntarily. The Code of Practice on the Mental Health Act gives detailed guidance to professional staff on consent to treatment. It states that, "patients treated with ECT should be given a leaflet which helps them to understand and remember, both during and after the course of ECT, the advice given about its nature, purpose and likely effects."

2.3 The Code of Practice also gives guidance on when treatment may be given to informal patients who may lack the capacity to consent. This is governed by common law principles regarding necessity and the best interests of the patients.

Annex B:

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4 Numbers of patients who underwent ECT, Q4 2001-02, by sex, age and region

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5 Persons per 100,000 of the population who underwent ECT, Q4 2001-02, by sex, age and region

6 Number of patients finishing ECT, Q4 2001-02, by sex, region and number of treatments administered

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8a Number of ECT patients and rate per 100,000 of the population, by ethnic origin, Q4 1998-99

8 Number of ECT patients and rate per 100,000 of the population, by ethnic origin, Q4 2001-02

9 Numbers of patients who underwent ECT, Q4 2001-02, by sex, diagnosis and region

10 Comparison between number of patients in survey treated with ECT and number of FCEs in HES involving ECT treatment

Table 1 : Number of administrations of ECT by regional office area¹, setting, number of patients and ratio between administrations and patients, Q4 1998-99 and Q4 2001-02

England, all patients (NHS and private)							Numbers
	Administrations					Patients	
	All adminis- trations	Day case admission	Ordinary admission	Out patient	Regular day/night attender	Patients	Admins- trations per patient
<u>1999 Survey</u>							
England	16,482	502	13,507	2,398	75	2,835	5.8
Northern & Yorkshire	2,378	9	2,054	289	26	397	6.0
Trent	1,501	150	1,129	197	25	315	4.8
Eastern	1,764	84	1,391	287	2	283	6.2
London	1,755	13	1,416	315	11	266	6.6
South East	3,019	43	2,487	482	7	491	6.1
South West	1,748	86	1,408	254	-	310	5.6
West Midlands	1,632	13	1,433	186	-	306	5.3
North West	2,685	104	2,189	388	4	467	5.7
<u>2002 Survey</u>							
England	12,800	312	10,109	2,327	52	2,272	5.6
Northern & Yorkshire	1,791	55	1,398	336	2	289	6.2
Trent	1,164	25	916	218	5	199	5.8
Eastern	947	7	761	159	20	196	4.8
London	1,283	10	1,050	220	3	248	5.2
South East	2,747	122	1,932	690	3	488	5.6
South West	1,073	80	836	139	18	196	5.5
West Midlands	1,452	-	1,235	216	1	256	5.7
North West	2,343	13	1,981	349	-	400	5.9

Source : ECT surveys 1999 and 2002, Department of Health

1. Regional office area refers to area of treatment.

Table 2 : Number of administrations of ECT by regional office area¹, setting, number of patients and ratio between administrations and patients, NHS facilities, Q4 1998-99 and Q4 2001-02

England, NHS facilities							Numbers
	Administrations					Patients	
	All adminis- trations	Day case admission	Ordinary admission	Out patient	Regular day/night attender	Patients	Admins- trations per patient
<u>1999 Survey</u>							
England	15,756	502	12,895	2,284	75	2,706	5.8
Northern & Yorkshire	2,275	9	1,963	277	26	381	6.0
Trent	1,501	150	1,129	197	25	315	4.8
Eastern	1,736	84	1,363	287	2	279	6.2
London	1,555	13	1,254	277	11	238	6.5
South East	2,885	43	2,367	468	7	467	6.2
South West	1,706	86	1,374	246	-	302	5.6
West Midlands	1,526	13	1,343	170	-	282	5.4
North West	2,572	104	2,102	362	4	442	5.8
<u>2002 Survey</u>							
England	12,086	295	9,488	2,251	52	2,147	5.6
Northern & Yorkshire	1,671	38	1,295	336	2	268	6.2
Trent	1,164	25	916	218	5	199	5.8
Eastern	947	7	761	159	20	196	4.8
London	1,103	10	900	190	3	216	5.1
South East	2,557	122	1,756	676	3	461	5.5
South West	1,070	80	833	139	18	193	5.5
West Midlands	1,449	-	1,232	216	1	255	5.7
North West	2,125	13	1,795	317	-	359	5.9

Source : ECT surveys 1999 and 2002, Department of Health

1. Regional office area refers to area of treatment.

Table 3 : Number of administrations of ECT by regional office area¹, setting, number of patients and ratio between administrations and patients, private facilities, Q4 1998-99 and Q4 2001-02

England, private facilities						Numbers	
	Administrations					Patients	
	All adminis- trations	Day case admission	Ordinary admission	Out patient	Regular day/night attender	Patients	Admins- trations per patient
<u>1999 Survey</u>							
England	726	-	612	114	-	129	5.6
Northern & Yorkshire	103	-	91	12	-	16	6.4
Trent	-	-	-	-	-	-	-
Eastern	28	-	28	-	-	4	7.0
London	200	-	162	38	-	28	7.1
South East	134	-	120	14	-	24	5.6
South West	42	-	34	8	-	8	5.3
West Midlands	106	-	90	16	-	24	4.4
North West	113	-	87	26	-	25	4.5
<u>2002 Survey</u>							
England	714	17	621	76	-	125	5.7
Northern & Yorkshire	120	17	103	-	-	21	5.7
Trent	-	-	-	-	-	-	-
Eastern	-	-	-	-	-	-	-
London	180	-	150	30	-	32	5.6
South East	190	-	176	14	-	27	7.0
South West	3	-	3	-	-	3	1.0
West Midlands	3	-	3	-	-	1	3.0
North West	218	-	186	32	-	41	5.3

Source : ECT surveys 1999 and 2002, Department of Health

1. Regional office area refers to area of treatment.

Table 4a : Number of patients who underwent ECT, Q4 1998-99, by sex, age and region

England, all patients (NHS and private)						Numbers
	Under 16	16 - 24	25 - 44	45 - 64	65 or over	All ages
Persons						
England	1	80	675	903	1,176	2,835
Northern & Yorkshire	-	13	117	133	134	397
Trent	-	6	89	100	120	315
Eastern	-	4	62	88	129	283
London	-	14	47	74	131	266
South East	1	18	129	161	182	491
South West	-	7	64	105	134	310
West Midlands	-	7	71	87	141	306
North West	-	11	96	155	205	467
Females						
England	-	43	443	589	848	1,923
Northern & Yorkshire	-	8	74	82	100	264
Trent	-	3	52	67	79	201
Eastern	-	2	42	53	99	196
London	-	7	28	54	91	180
South East	-	11	88	110	131	340
South West	-	4	43	72	92	211
West Midlands	-	2	49	46	109	206
North West	-	6	67	105	147	325
Males						
England	1	37	232	314	328	912
Northern & Yorkshire	-	5	43	51	34	133
Trent	-	3	37	33	41	114
Eastern	-	2	20	35	30	87
London	-	7	19	20	40	86
South East	1	7	41	51	51	151
South West	-	3	21	33	42	99
West Midlands	-	5	22	41	32	100
North West	-	5	29	50	58	142

Source : ECT survey 1999, Department of Health

Table 4 : Number of patients who underwent ECT, Q4 2001-02, by sex, age and region

England, all patients (NHS and private)								Numbers
	Under 16	16 - 18	19 - 24	25 - 44	45 - 64	65 - 74	75 or over	All ages
Persons								
England	-	4	43	516	656	547	506	2,272
Northern & Yorkshire	-	-	5	91	86	45	62	289
Trent	-	-	4	43	57	53	42	199
Eastern	-	-	2	41	47	50	56	196
London	-	1	6	40	68	75	58	248
South East	-	-	6	121	150	109	102	488
South West	-	1	5	45	60	46	39	196
West Midlands	-	1	7	50	75	65	58	256
North West	-	1	8	85	113	104	89	400
Females								
England	-	2	20	375	458	374	379	1,608
Northern & Yorkshire	-	-	1	74	68	35	40	218
Trent	-	-	1	28	40	38	33	140
Eastern	-	-	1	33	34	23	39	130
London	-	-	2	20	43	53	39	157
South East	-	-	3	89	104	79	76	351
South West	-	1	3	32	34	33	36	139
West Midlands	-	-	4	34	47	48	45	178
North West	-	1	5	65	88	65	71	295
Males								
England	-	2	23	141	198	173	127	664
Northern & Yorkshire	-	-	4	17	18	10	22	71
Trent	-	-	3	15	17	15	9	59
Eastern	-	-	1	8	13	27	17	66
London	-	1	4	20	25	22	19	91
South East	-	-	3	32	46	30	26	137
South West	-	-	2	13	26	13	3	57
West Midlands	-	1	3	16	28	17	13	78
North West	-	-	3	20	25	39	18	105

Source : ECT survey 2002, Department of Health

Table 5a : Persons per 100,000 of the population who underwent ECT, Q4 1998-99, by sex, age and region

England, all patients (NHS and private)		rate per 100,000 population				
	Under 16	16 - 24	25 - 44	45 - 64	65 or over	All ages
Persons						
England	0.0	1.5	4.6	8.0	15.1	5.8
Northern & Yorkshire	-	1.8	6.3	9.1	13.3	6.3
Trent	-	1.1	5.9	8.4	14.5	6.1
Eastern	-	0.7	3.9	7.0	15.1	5.3
London	-	1.6	1.9	5.1	14.1	3.7
South East	0.1	2.0	5.0	8.1	13.2	5.7
South West	-	1.4	4.7	9.1	14.8	6.4
West Midlands	-	1.2	4.6	7.0	17.0	5.8
North West	-	1.5	5.0	10.2	19.9	7.1
Females						
England	-	1.6	6.1	10.4	18.5	7.7
Northern & Yorkshire	-	2.3	8.1	11.1	16.7	8.2
Trent	-	1.1	7.0	11.2	16.4	7.8
Eastern	-	0.7	5.4	8.4	20.0	7.3
London	-	1.7	2.3	7.4	16.5	5.0
South East	-	2.5	7.0	11.0	16.1	7.8
South West	-	1.6	6.4	12.3	17.3	8.5
West Midlands	-	0.7	6.5	7.4	22.4	7.7
North West	-	1.7	7.0	13.8	23.8	9.7
Males						
England	0.0	1.3	3.1	5.6	10.3	3.8
Northern & Yorkshire	-	1.4	4.6	7.0	8.2	4.3
Trent	-	1.0	4.8	5.5	11.8	4.5
Eastern	-	0.7	2.5	5.6	8.3	3.3
London	-	1.6	1.5	2.8	10.6	2.5
South East	0.1	1.5	3.1	5.1	9.1	3.6
South West	-	1.2	3.0	5.8	11.3	4.2
West Midlands	-	1.7	2.8	6.6	9.3	3.8
North West	-	1.4	3.0	6.6	14.0	4.4

Source : ECT survey 1999, Department of Health; Office for National Statistics

Table 5 : Persons per 100,000 of the population who underwent ECT, Q4 2001-02, by sex, age and region

England, all patients (NHS and private)		rate per 100,000 population						
	Under 16	16 - 18	19 - 24	25 - 44	45 - 64	65 - 74	75 or over	All ages
Persons								
England	-	0.2	1.2	3.6	5.6	13.3	13.6	4.6
Northern & Yorkshire	-	-	1.1	5.2	5.7	8.2	13.2	4.6
Trent	-	-	1.1	3.0	4.6	11.9	10.7	3.9
Eastern	-	-	0.6	2.6	3.5	10.7	13.2	3.6
London	-	0.4	1.0	1.6	4.7	16.0	13.7	3.5
South East	-	-	1.0	4.8	7.1	15.2	14.9	5.6
South West	-	0.6	1.6	3.4	4.8	9.9	8.5	4.0
West Midlands	-	0.5	1.9	3.4	5.9	14.4	14.8	4.9
North West	-	0.4	1.8	4.7	7.3	18.9	18.7	6.2
Females								
England	-	0.2	1.1	5.1	7.7	17.1	16.1	6.4
Northern & Yorkshire	-	-	0.4	8.3	8.9	11.9	13.4	6.8
Trent	-	-	0.5	3.9	6.4	16.2	13.5	5.4
Eastern	-	-	0.6	4.2	5.1	9.4	14.8	4.7
London	-	-	0.6	1.5	5.8	21.3	14.5	4.2
South East	-	-	1.0	7.1	9.8	20.8	17.6	7.9
South West	-	1.2	1.9	4.8	5.4	13.4	12.5	5.5
West Midlands	-	-	2.1	4.6	7.4	20.1	18.2	6.6
North West	-	0.8	2.2	7.0	11.2	22.0	23.2	8.9
Males								
England	-	0.2	1.3	2.0	3.4	9.0	9.3	2.8
Northern & Yorkshire	-	-	1.8	2.0	2.4	4.0	12.9	2.4
Trent	-	-	1.6	2.1	2.7	7.2	6.1	2.4
Eastern	-	-	0.6	1.0	2.0	12.2	10.6	2.5
London	-	0.8	1.4	1.6	3.6	10.0	12.3	2.6
South East	-	-	1.0	2.6	4.4	8.9	10.4	3.2
South West	-	-	1.2	2.0	4.2	6.0	1.8	2.4
West Midlands	-	0.9	1.6	2.2	4.4	8.0	9.0	3.0
North West	-	-	1.3	2.2	3.3	15.3	10.6	3.4

Source : ECT survey 2002, Department of Health; Office for National Statistics

Table 6 : Number of patients finishing ECT, Q4 2001-02, by sex, region and number of treatments administered

England, all patients (NHS and private)	Number of treatments						
	1 to 2	3 to 5	6 to 8	9 to 12	13 to 16	over 16	All patients
Persons							
England	190	341	591	408	72	39	1,641
Northern & Yorkshire	32	44	77	49	10	7	219
Trent	11	28	55	32	6	2	134
Eastern	13	33	49	28	5	7	135
London	22	43	64	38	8	6	181
South East	39	61	127	102	25	8	362
South West	23	35	55	27	5	1	146
West Midlands	22	42	77	51	6	1	199
North West	28	55	87	81	7	7	265
Females							
England	135	249	405	283	45	25	1,142
Northern & Yorkshire	25	34	59	37	7	5	167
Trent	8	18	39	21	4	2	92
Eastern	10	26	19	22	4	5	86
London	9	31	39	21	5	3	108
South East	32	47	91	71	16	5	262
South West	16	25	41	19	1	1	103
West Midlands	14	29	51	31	5	1	131
North West	21	39	66	61	3	3	193
Males							
England	55	92	186	125	27	14	499
Northern & Yorkshire	7	10	18	12	3	2	52
Trent	3	10	16	11	2	-	42
Eastern	3	7	30	6	1	2	49
London	13	12	25	17	3	3	73
South East	7	14	36	31	9	3	100
South West	7	10	14	8	4	-	43
West Midlands	8	13	26	20	1	-	68
North West	7	16	21	20	4	4	72

Source : ECT survey 2002, Department of Health

Table 7 : Legal status of ECT patients and method of consent¹

England, all patients (NHS and private)		Numbers		
	Detained	Informal	Total	
<u>1999 Survey</u>				
All	709	2,126	2,835	
Consented	206	2,096	2,302	
Emergency	87	30	117	
No consent, 2nd opinion obtained	416	-	416	
<u>2002 Survey</u>				
All	616	1,656	2,272	
Consented	170	1,630	1,800	
Emergency	76	26	102	
No consent, 2nd opinion obtained	370	-	370	

Source : ECT surveys 1999 and 2002, Department of Health

1. See Annex A for notes on consent under the Mental Health Act

Table 8a : Number of ECT patients and rate per 100,000 of the population by ethnic origin, Q4 1998-99

England, all patients (NHS and private)	Numbers, percentages and rates			
	ECT patients	% patients, where ethnic origin given	% of the general population ¹	ECT patients ² per 100,000
All patients	2,835	100%	100%	5.8
<i>Ethnic group :</i>				
White	2,508	96.2%	92.7%	5.6
Black - Caribbean	16	0.6%	0.6%	3.1
Black - African	6	0.2%	0.7%	1.7
Black - other	3	0.1%	1.1%	1.0
Indian	26	1.0%	0.3%	2.8
Pakistani	15	0.6%	0.4%	2.7
Bangladeshi	2	0.1%	1.9%	1.0
Chinese	2	0.1%	1.1%	1.4
Other ethnic group	28	1.1%	1.1%	5.4
Not given	109	.	.	.
Not known	120	.	.	.

Source : ECT survey 1999, Department of Health

1. Ethnic population figures are taken from 1997 estimates from ONS, Population Trends.

2. Rates for individual ethnic groups are based only on those patients for whom ethnic origin is known; this results in all group rates being lower than the rate for all patients

. = Figure not available

Table 8 : Number of ECT patients and rate per 100,000 of the population by ethnic origin, Q4 2001-02

England, all patients (NHS and private)		Numbers, percentages and rates		
	ECT patients	% patients, where ethnic origin given	% of the general population ¹	ECT patients ² per 100,000
All patients	2,272	100%	100%	4.6
<i>Ethnic category :</i>				
White				
British	1,696	91.6%	86.99%	4.0
Irish	27	1.5%	1.27%	4.3
Other White background	55	3.0%	2.66%	4.2
Mixed				
White and Black Caribbean	3	0.2%	0.47%	1.3
White and Black African	1	0.1%	0.16%	1.3
White and Asian	-	0.0%	0.37%	0.0
Other mixed background	2	0.1%	0.31%	1.3
Asian or Asian British				
Indian	23	1.2%	2.09%	2.2
Pakistani	12	0.6%	1.44%	1.7
Bangladeshi	1	0.1%	0.56%	0.4
Other Asian background	7	0.4%	0.48%	2.9
Black or Black British				
Caribbean	13	0.7%	1.14%	2.3
African	2	0.1%	0.97%	0.4
Other Black background	1	0.1%	0.19%	1.0
Other ethnic groups				
Chinese	2	0.1%	0.45%	0.9
Other ethnic group	7	0.4%	0.44%	3.3
Not stated				
Not stated	420	.	.	.

Source : ECT survey 2002, Department of Health

1. Ethnic population figures are taken from 2001 Census from ONS

2. Rates for individual ethnic groups are based only on those patients for whom ethnic origin is known; this results in all group rates being lower than the rate for all patients

. = Figure not available

Table 9 : Number of patients who underwent ECT, Q4 2001-02, by sex, diagnosis and region

England, all patients (NHS and private)							Numbers
	ICD-10 diagnosis						
	F00 - F09	F10 - F19	F20 - F29	F30 - F39	F40 - F48	F50 - F59	
Persons							
England	16	7	129	1,626	75	12	
Northern & Yorkshire	2	2	12	221	12	-	
Trent	3	-	11	143	13	-	
Eastern	2	-	11	116	11	1	
London	3	1	21	214	-	1	
South East	3	2	28	345	7	4	
South West	-	-	9	131	5	2	
West Midlands	2	-	11	169	10	2	
North West	1	2	26	287	17	2	
Females							
England	11	3	84	1,161	55	11	
Northern & Yorkshire	2	1	7	171	9	-	
Trent	3	-	7	97	12	-	
Eastern	1	-	9	86	6	1	
London	1	-	12	138	-	-	
South East	1	1	23	242	3	4	
South West	-	-	3	98	4	2	
West Midlands	2	-	6	119	7	2	
North West	1	1	17	210	14	2	
Males							
England	5	4	45	465	20	1	
Northern & Yorkshire	-	1	5	50	3	-	
Trent	-	-	4	46	1	-	
Eastern	1	-	2	30	5	-	
London	2	1	9	76	-	1	
South East	2	1	5	103	4	-	
South West	-	-	6	33	1	-	
West Midlands	-	-	5	50	3	-	
North West	-	1	9	77	3	-	

Source : ECT survey 2002, Department of Health

Table 9 : Number of patients who underwent ECT, Q4 2001-02, by sex, diagnosis and region

	England, all patients (NHS and private)					Numbers
	ICD-10 diagnosis					All
	F60 - F69	F70 - F79	F80 - F89	F90 - F98	F99	diagnoses
Persons						
England	19	2	1	-	116	2,003
Northern & Yorkshire	7	1	1	-	7	265
Trent	1	-	-	-	22	193
Eastern	1	-	-	-	10	152
London	2	-	-	-	4	246
South East	5	-	-	-	21	415
South West	1	-	-	-	22	170
West Midlands	1	1	-	-	28	224
North West	1	-	-	-	2	338
Females						
England	14	1	-	-	75	1,415
Northern & Yorkshire	4	1	-	-	6	201
Trent	1	-	-	-	16	136
Eastern	1	-	-	-	6	110
London	1	-	-	-	3	155
South East	5	-	-	-	15	294
South West	1	-	-	-	12	120
West Midlands	-	-	-	-	16	152
North West	1	-	-	-	1	247
Males						
England	5	1	1	-	41	588
Northern & Yorkshire	3	-	1	-	1	64
Trent	-	-	-	-	6	57
Eastern	-	-	-	-	4	42
London	1	-	-	-	1	91
South East	-	-	-	-	6	121
South West	-	-	-	-	10	50
West Midlands	1	1	-	-	12	72
North West	-	-	-	-	1	91

Source : ECT survey 2002, Department of Health

Table 10 : Comparison between number of patients in survey treated with ECT and number of FCEs in HES involving ECT treatment.

England, NHS patients in ECT survey		Numbers and percentages						
	All ages	Under 16	16 - 18	19 - 24	25 - 44	45 - 64	65 - 74	75 or over
Persons	2,147	-	4	35	465	620	523	500
Male	621	0.0%	0.3%	2.9%	20.6%	29.6%	26.6%	20.0%
Female	1,526	0.0%	0.1%	1.1%	22.1%	28.6%	23.5%	24.6%

Source : ECT survey 2002, Department of Health

England, FCEs in HES involving ECT treatments		Numbers and percentages						
	All ages	Under 16	16 - 18	19 - 24	25 - 44	45 - 64	65 - 74	75 or over
Persons	964	-	1	23	192	342	220	186
Male	244	0.0%	0.4%	7.8%	18.0%	37.3%	19.7%	16.8%
Female	719	0.0%	0.0%	0.6%	20.6%	34.9%	23.8%	20.2%

Source : Hospital Episode Statistics, Q4 2001-02 (ungrossed)

Note: FCEs (finished consultant episodes) are not directly comparable to the number of patients receiving ECT; some patients may have received more than one episode of care during the period. Also some patients receiving ECT may not have completed their in-patient episode and hence not recorded as an FCE. Out-patients receiving ECT are included in the survey but not in HES.

Annex C: Methodology and quality of data

Index

- 1 Survey design
- 2 Data collection
- 3 Quality of data
- 4 Survey form

1. Survey Design

1.1 The survey was commissioned to obtain updated baseline information on the use of ECT treatment.

1.2 Discussions with NHS Trusts established that data was collected locally in a number of ways, with varying limitations. Given the time factors involved with collecting the data, this necessitated data collection on paper.

1.3 The survey form is attached at the end of this Annex. Data on the various characteristics of the ECT patient population were collected in separate, unlinked tables. This approach minimised the possibility of error and the cost to the NHS of providing the information. The drawback of this approach is that the different characteristics cannot be cross tabulated: for example, it is not possible to compare age groups within ethnic groups, or number of treatments within consent groups.

1.4 To improve on the range of information for 2002, two additional activities were recorded:

- mental disorder diagnoses under which patients received ECT treatment.
- length of ECT course of treatment.

2. Data collection

2.1 The attached survey form was sent to all NHS Trusts in England, with mental health facilities. It was also sent to the National Care Standards Commission (NCSC) who, from 1 April 2002, took over responsibility from Health Authorities in England, to provide information from private facilities.

2.2 It was required that all survey forms were completed, either as nil returns or with data, with a deadline of 31 May 2002, although many Trusts were unable to meet this deadline. To ensure that all forms were returned completed, a rigorous procedure of follow-up requests and basic data checks was carried out, during the months that followed. Reported results now reflect returns from all Trusts and private hospitals.

2.3 Many trusts were able to return data after minimal adjustments to the records kept in ECT suites. In a few instances where certain data was not available, estimates were made.

2.4 Private hospitals also supplied information to the relevant NCSC Area Office. A significant proportion of private hospitals do not administer ECT but contract with the NHS for treatment if this is necessary; these treatments are recorded by the NHS. It was therefore expected that many private

nursing homes registered to detain patients would not return data on ECT.

3. Quality of data

3.1 As this is the first reliable national data available since a similar survey in 1999, exploration of data quality issues was limited. However, it was possible to examine data quality from four main angles:

- i) Checking for internal consistency on each survey form.
- ii) Confirmation that there was a consistent picture across the country.
- iii) Checking that the new data showed continuation of trends identified in the 1999 survey.
- iv) Cross checking the survey results with HES data sources.

3.2 The conclusion drawn from these analyses was that the data are broadly representative of ECT treatment undertaken in the survey period.

3.3 Comparison with HES data demonstrated similarities in the composition of the data. As well as providing further confidence that the survey data is representative, this suggests that HES data for ECT can be considered to be randomly under-recorded.

4. Survey form

4.1 The survey form is attached overleaf.