CLINICAL FORENSIC MEDICINE

An Analysis of 643 Cases

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Forensic medicine may be defined as the science concerned with the application of medical knowledge to particular branches of the law. From time to time doctors are required to give assistance and opinions in medico-legal cases and their attendance at court is sometimes necessary. It is consequently most important that they should appreciate the medical and legal aspects of this science.

This paper describes an analysis of 643 forensic cases seen in general medical and police surgeons' practices. Survey 'A' contains 550 cases attended by 13 police surgeons. Survey 'B' contains 93 cases attended by 46 general practitioners.

The organizing secretary of the survey was granted a 1958 Upjohn Travelling Fellowship in General Practice which enabled him to take a refresher course in forensic medicine. The two pilot surveys discussed here are an indirect outcome of this award.

There have been no surveys covering the medico-legal work undertaken by medical practitioners and consequently the types of episodes seen and their relative frequency of occurrence is not known. It would be a formidable and almost impossible task to collect information about all medico-legal work in one survey. Several surveys dealing with different parts of this subject would be necessary to obtain a complete picture. Before any large survey is carried out, one or more pilot surveys should be arranged to ascertain the size of the field to be covered, the details required, the approximate number of cases needed for statistical purposes, the optimum number of participants, the type of *pro forma*, how long the survey should last, the approximate cost and other information necessary when planning and organizing a full survey.

These two pilot surveys were concerned with clinical forensic medical episodes. The episodes that a medical practitioner meets during the course of his day which could be classified as medico-legal are legion, e.g., notification of infectious and industrial diseases, certification of illness, of death, for cremation, agreements

between practitioners, the terms of service of the National Health Service Acts, the responsibility for any acts of omission or commission of a deputy, administration of the Dangerous Drugs Acts and the Poison Rules. Other important episodes would include the examination of a driver believed to be under the influence of alcohol or drugs, cases of sudden death reported to the coroner or procurator-fiscal because the cause was not clear or an accident had contributed to the cause of death, cases of grievous bodily harm, sexual assaults, aid to persons detained in cells, and many more.

Definition

A Clinical Forensic Medical Episode was defined as a case in which a doctor and a legal authority were concerned. The legal authorities in this context included the police, coroner, procurator-fiscal, judge, recorder, N.S.P.C.C., children's officer, duly authorised officer and the prison authorities. Episodes not to be included were court attendances, examination of recruits for the police force, examination of policemen for superannuation purposes and private examinations and reports to solicitors.

Organization

Survey 'A' (1 March 1959—31 May 1959). The participants in this survey were thirteen general practitioners holding part-time police surgeon appointments. They were all members of the Council of the Association of Police Surgeons of Great Britain and were from different parts of Britain and from various types of practice, some highly industrialized, a few from small towns, and others from rural areas. The survey was limited to three months. Each practitioner had a code number and the key to this was known only to the organizing secretary. This ensured strict confidence. The code number was entered on each *pro forma* and the practitioner numbered his cases consecutively. The name of the examinee did not appear on the form, thus maintaining professional secrecy. The sex, age, date were noted and also the person responsible for requesting the doctor to attend. The appropriate episode subdivision number was selected, ringed and brief details given in certain cases. In order to standardize definitions and procedure, notes for guidance were issued.

A new card was used for every case and these returned to the organizing secretary at the end of each month. Any errors could then be attended to. The brief notes allowed correct classification in difficult cases and often avoided the card being referred back.

Survey 'B' (12 February 1959—11 May 1959). The doctors taking part in this survey were 46 members and associates of the Midland Faculty of the College of General Practitioners. Twenty-three were in urban, 7 in rural and 16 in mixed practices. Fifteen

practitioners stated that they were always requested to help the police whenever a medico-legal episode occurred, 16 were sometimes asked and 15 never. This pilot survey lasted for three months and the total general-practice patients at risk was approximately 230,000.

Pro forma

The *pro forma* in survey 'A' was a stiff, lemon-coloured card the same size as the National Health Service Record Card EC7 (7in. x 4½in.). This was divided into two main parts.

The first part for general data:

(i) Doctor's code number
(ii) Case number
(iii) Age
(iv) Sex
(v) Date
(vi) Case primarily attended
A as family doctor
B at the request of the police
C at the request of others: Specify.....

The second part divided into eight sections:

(i) Drunk-in-charge
(ii) Sudden death
(iii) Sexual cases
(iv) Criminal assault
(v) Abortion (non-fatal)
(vi) Attempted suicide
(vii) Cruelty to Children
(viii) Miscellaneous

These sections were further divided and the thirty-three sub-divisions numbered.

In survey 'B' the *pro forma* was similar except that there was no section for attempted suicide.

Analysis

The total number of cases seen by the general practitioners in survey 'B' is small when compared with the numbers attended by the police surgeons in survey 'A'. When, however, the two surveys are compared section by section (see figure 1) the percentages of comparable sections do not vary greatly.

The percentages in the sections drunk-in-charge, sexual assault, criminal assault, and cruelty to children are very close. The greatest variation occurred in the sudden death and miscellaneous groups. No attempted suicide section was included in survey 'B'.

The overall picture of both surveys is similar and in view of this the cases from both surveys have been combined in the following analysis.

The sections were subdivided to give greater detail and this may be studied in table I. Columns A, B and C indicate whether the medical practitioner was requested to attend by the police, as a family doctor, or by others.

	Cases				
	A	*B*	*C*	*Group*	*Approx. percentage*
Drunk-in-charge					
Under influence of alcohol ..	1	135	—		
Under influence of drugs ..	—	2	—		
Not under influence, etc. ..	—	43	—		
Person is ill	—	1	—		
				182	28.3
Sudden death					
Reported to coroner, proc. fiscal, etc.	19	26	2		
Accidents	—	16	—		
Suicide	6	22	—		
Murder	—	—	—		
Manslaughter	—	—	—		
Abortion	—	1	—		
Fighting	—	—	—		
Neglect	—	—	—		
To certify that a body is dead	—	31	—		
				123	19
Sexual					
Rape	—	12	—		
Attempted rape	—	3	—		
Indecent assault	4	23	—		
Sodomy, active participant ..	—	7	—		
Sodomy, passive participant ..	—	15	2		
Other cases of indecent practices, etc.	—	38	—		
Person alleged to have made the assault	—	2	—		
				106	16.5
Criminal assault					
Grievous bodily harm ..	5	21	1		
Attempted murder	—	1	—		
Non-fatal accident	—	—	—		
Person alleged to have made the assault	1	6	—	35	5.5
Abortion (non-fatal) ..	—	—	—	0	0
Attempted suicide	3	3	—	6	1
Cruelty to children					
Neglect	—	1	13		
Assault	—	2	—		
Others	—	—	—		
				16	2.5
Miscellaneous					
Remains thought to be human	—	—	—		
Prisoner re fitness for Borstal, etc.	—	9	5		
Medical aid in cell	—	106	2		
Others	—	32	21		
				175	27.2
Aggregate	39	558	46	643	100%

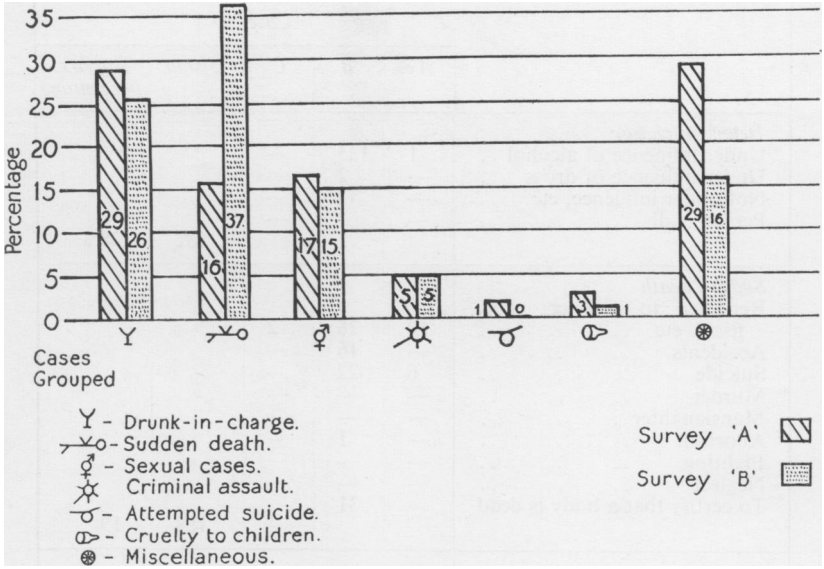

Figure 1
The two surveys compared

Drunk-in-charge. This group of 182 cases (28.3 per cent), is the largest. In only one case was a practitioner called in the capacity of family doctor. In every other instance he was called by the police. In 2 cases females were involved, and in 3 cases the person was in charge of a pedal cycle. 136 cases were under the influence of alcohol, etc., 43 not under the influence, 2 cases were under the influence of drugs, and in one case the person was under the influence of alcohol and was also organically ill. No case was recorded of anyone suffering from illness alone. The ages varied from 15 to 62 years. Figure 2 shows the age group distribution.

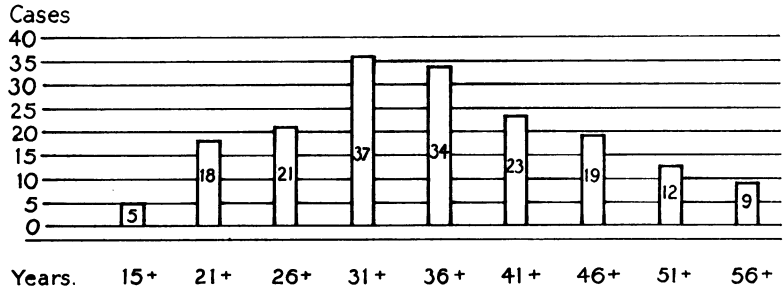

Figure 2
Age group distribution

The cases per age group rises steeply to the 31 + group then falls slowly.

Sudden death. This section accounted for 123 cases (19 per cent) In about one fifth the family doctor was in attendance. This section was subdivided:

(*a*) Cases reported to the coroner or procurator-fiscal as the cause of death was not clear or where no certificate was issued because of non-attendance during the last illness. Heart disease accounted for 35 of these 47 cases. The large majority were males. Epilepsy and alcohol accounted for 3 cases. See table II.

TABLE II

CASES REPORTED TO CORONER OR PROCURATOR-FISCAL BECAUSE THE DOCTOR WAS UNABLE TO CERTIFY THE CAUSE OF DEATH

Cause of death	*Age, sex groups*							
	0–2 *M F*	40–9 *M F*	50–9 *M F*	60–9 *M F*	70–9 *M F*	80–9 *M F*	*Total*
Heart disease	– –	4 –	4 3	6 4	6 3	3 2	35
Heart disease and alcohol ..	– –	– –	– –	1 –	– –	– –	1
Respiratory infection ..	1 1	– 1	– –	– –	– –	– –	3
Epileptic fit	– –	– –	– 1	– –	– –	– –	1
Pneumonia and alcohol ..	– –	– –	– 1	– –	– –	– –	1
Subarachnoid haemorrhage	– –	– –	– 1	– –	– –	– –	1
Not recorded	– –	1 –	1 1	1 –	– –	– –	4
Pulmonary embolism ..	– –	– 1	– –	– –	– –	– –	1
							47

(*b*) Accidents in any way contributing to the cause of death. 15 of the total 16 cases were males. Coal gas poisoning accounted for 6 cases. No details were available giving details as to the primary cause of the accident. See table III.

TABLE III

CASES REPORTED TO CORONER OR PROCURATOR-FISCAL BECAUSE ACCIDENT CONTRIBUTED TO THE CAUSE OF DEATH

Accident	*Age, sex groups*							
	0–7 *M F*	10–9 *M F*	30–9 *M F*	50–9 *M F*	60–9 *M F*	70–9 *M F*	80–9 *M F*	*Total*
Coal gas	– –	– –	– –	1 –	– –	1 –	3 1	6
Accidental smothering	3 –	– –	– –	– –	– –	– –	– –	3
Fell in canal	1 –	– –	– –	– –	– –	– –	– –	1
Fell from building ..	1 –	– –	– –	– –	– –	– –	– –	1
Train accident	– –	– –	1 –	1 –	1 –	– –	– –	3
Motor cycle accident ..	– –	1 –	– –	– –	– –	– –	– –	1
Drove into river ..	– –	– –	– –	1 –	– –	– –	– –	1
								16

(*c*) 28 suicides were recorded and half of these were due to coal gas. Almost two thirds of these were males. See table IV.

TABLE IV
THE METHOD USED TO COMMIT SUICIDE

	Male	*Female*
Coal gas	12	5
Drowned	2	3
Drugs	—	2
Jumped off building	—	1
Gun	1	—
Cut throat	1	—
Not recorded	1	—
	17	11
TOTAL	28	

Attempted suicide was recorded 6 times. The ages ranged from 24 to 40 years. One man attempted to jump from a widow, one cut his wrist. One man and two women took barbiturates and one woman drank parazone.

(*d*) Abortion caused death in one case.

(*e*) To certify for police purposes that a body is dead. Most of these cases occurred at home. They were included in this section whenever a more accurate classification could not be made.

Five bodies (4 males) were recovered from rivers. Twenty-five (15 males) were found dead in bed at home and the uninjured body of a female new-born child was found in a left luggage office.

Sexual cases. One hundred and six cases were reported and in 100 cases the police requested the examination, the procurator-fiscal in two, and in four cases the family doctor attended. Seventy-five cases were females and only 8 were 17 years or over. Unlawful carnal knowledge (U.C.K.), rape or attempted rape accounted for 44 cases, indecent assault either sex 27 cases, and passive sodomy 17 cases. See table V.

(31 cases involved males and 13 of these were 17 years or over.)

Criminal assault. Twenty-eight of the 35 cases were seen at the request of the police, 6 as a family doctor and one at the request of the duly authorised officer. Grievous bodily harm accounted for 28 cases and 22 of these were males. In 6 cases (4 male) it was the assaulted who required treatment. There was one attempted murder.

Cruelty to children. Sixteen cases were recorded, 13 seen at the request of the N.S.P.C.C., and the remainder at the request of the police. Neglect was the largest group and responsible for 12 cases.

Neglectful parents were twice recorded and there were two reports of assault.

TABLE V

DETAILS OF SEXUAL CASES

Type of case	*Age*																			*Total*
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21+	
FEMALES																				
Rape and attempted rape	1	–	–	1	1	–	2	3	–	–	–	–	–	1	–	2	–	–	4	15
U.C.K.	–	–	–	–	–	–	–	–	–	4	3	3	18	–	–	–	–	–	–	28
U.C.K. of lunatic	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1
Incest	–	–	–	–	–	1	–	–	1	–	–	3	1	1	–	–	–	–	–	7
Incest and sodomy	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1
Indecent assault..	2	2	1	3	–	2	3	–	2	1	1	–	1	3	–	–	–	–	1	22
Indecent practises	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
Total females ..																				75
MALES																				
Sodomy active ..	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	6	7
Sodomy passive..	–	–	–	–	–	–	3	–	1	1	3	–	1	3	1	–	–	1	3	17
Indecent assault..	–	–	1	1	–	–	–	–	1	–	1	1	–	–	–	–	–	–	–	5
Assaulter ..	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	2
Total males ..																				31

Miscellaneous. This large section accounted for 175 cases (27.2 per cent). In 147 of these the request for attendance was made by the police, and in the remaining instances the request was made by the coroner (10), procurator-fiscal (9), prisoner (4), prison authorities (1), recorder (1), own initiative (1), R.A.F. police (1), and D.A.O. (1).

Fourteen prisoners were examined regarding fitness for prison or borstal training; of these, one was pregnant and one was certified as mentally unfit.

The reasons for requiring medical aid for persons in cells are listed below and overleaf:

ORGANIC ILLNESS		INJURY	
Not specified	15	Not specified	18
Epilepsy	9	Head injury	3
Alcoholic poisoning	2	Nose injury	2
Hysteria	1	Cut wrist	2
Chronic bronchitis	1	Lip injury	1
Coryza	1	Leg injury	1
Septic finger	1	Multiple grazes	1
Dermatitis	1	Indian hemp poisoning	1
Epistaxis	1		
	32		29

MALINGERER	
Symptoms	
Not specified	4
Abdominal pain	3
Headache	1
Ankle pains	2
	10

ILL AND DRUNK	
Disease	
Auricular fibrillation	1
Epilepsy	1
	2

INJURED AND DRUNK	
Injury to lip, face, nose, eye and/or chin	13
Not specified	8
Head injury	8
Leg injury	3
Thumb injury	1
Fractured ribs	1
Dislocated shoulder	1
	35

Twenty-two persons other than "drunk in charge" cases were examined at the request of the police as being under the influence of alcohol: of these 17 denied drunkenness, and 5 were accused of being drunk on licensed premises.

Requests for urgent medical aid were reported on 8 occasions: 6 times for mental illness and twice for severe injury.

Post-mortem examinations were made 16 times with the underlisted diagnosis:

Not specified	5
Drowned	2
Barbiturates	1
Inhaled vomit	1
Post-anaesthetic death	1
Pneumonia	1
Alcohol and coal gas	1
Cerebral haemorrhage	1
Coronary thrombosis	1
Hypertensive failure	1
Ruptured heart	1

Other miscellaneous requests included three special reports, one request for blood tests, and one to ascertain the origin of a wound.

Discussion

Six hundred and forty-three cards were returned during the months of March, April and May 1959. There was considerable variation in the numbers of episodes encountered by different doctors. The size of the *pro forma* was suitable although slight changes in the layout would have allowed more space for details in certain sections. There was considerable uniformity in interpreting the definitions from the notes for guidance.

The returns were too small to allow any statistical analysis to be made; nevertheless considerable information and certain trends were evident from the tables: e.g., in the sudden death series the sex and age group distribution of cardiovascular cases appeared significant. One sixth of all the returns were for sexual cases. Sixty-

one of the 75 females examined were under 16 years and 15 of the 31 males were under 16 years. Unlawful carnal knowledge, indecent assault and rape accounted for 66 cases. About half of the criminal assaults were under 29 years, 9 of the assaults were on policemen.

In 252 cases some drug or poisonous substance was present, and 182 of these were alleged " drunk in charge " cases. Carbon monoxide poisoning, epileptic cases and general injuries formed a significant part of the total.

A knowledge of forensic medicine is essential to all medical men[1]. The first medically qualified person to be present at almost every clinical forensic medical episode is the general practitioner either as a family doctor or police surgeon. In 1947 the General Medical Council noted " that the liability of every general practitioner to be called upon without notice to take decisions of grave importance on questions within the province of forensic medicine makes it imperative, in their judgment, that due weight should continue to be attached to the subject in the curriculum "[2].

The numbers of didactic and clinical lectures devoted to this subject varies from medical school to medical school[3]. Unfortunately the type of episode that a young medical man may have to deal with is often neither appreciated nor known. It is not possible to obtain formal postgraduate instruction in forensic medicine as no refresher course covers this subject.

A large survey organized for one year would give valuable information to those responsible for undergraduate and postgraduate medical education and to those interested in social science and all aspects of crime and delinquency.

Summary

No previous forensic medicine survey has been organized and consequently the type and relative frequency of forensic medical episodes is not known.

Two pilot surveys of clinical forensic medicine are reported. Survey 'A' lasted for three months and 550 cases were seen by 13 police surgeons. Survey 'B' lasted for three months and 93 cases were seen by 46 members and associates of the College.

Those taking part in survey 'A' were:

Dr R. D. Summers (London)
Dr R. Hunt Cooke (London)
Dr C. H. Johnson (London)
Dr G. B. Malone Lee (London)
Dr Bruce Wilson (London)
Dr J. A. Gavin (London)
Dr A. S. R. Sinton (Leeds)
Dr W. M. Thomas (Preston)
Dr W. J. Turney (Penzance)
Dr W. Fyffe Dorward (Dundee)
Dr A. E. M. Hartley (Henley-on-Thames)
Dr P. K. Ledger (Reigate)
Dr A. J. Laidlaw (Worcester), organizing secretary.

Members and associates taking part in survey 'B' were:

F. G. Alexander
A. J. Allen
A. M. F. Batty
P. O. Beatton
F. S. Black
F. V. A. Bosc
J. W. Brown
R. J. D. Browne
J. H. M. Buckley
C. F. Caldwell
J. T. Corbett
D. L. Crombie
K. G. Dickinson
A. E. Fairbrother
E. L. Fitzpatrick
J. R. P. Gibbons
T. M. Gibson
A. H. H. Guilbride
K. M. Hay
G. T. Haysey
M. J. Hildebrand
W. N. Hine
D. A. Ireland
W. L. Jack
T. B. Kenderine
P. King
J. P. Lester
A. B. Milligan
M. W. Mills
R. H. Morgan
A. J. Laidlaw (recorder)
A. J. Pearce
R. J. F. H. Pinsent
J. H. Price
E. Pringle
C. C. G. Rawll
G. A. Readett
R. Rose
L. G. Rutter
D. E. Sargent
J. M. Stuart
W. Summers
J. L. Taylor
A. J. Tulloch
M. H. Turner
D. White

REFERENCES

1. *The Training of a Doctor.* London: British Medical Association, 1948.
2. *Recommendations as to the Medical Curriculum.* General Medical Council, 1947.
3. British Medical Association Inquiry to Medical Schools in connection with a World Medical Association Investigation, 1950.

Annotation

The Ageing Mind. A discussion by the Section of General Practice of the Royal Society of Medicine. *The Practitioner* (January 1960) **184,** 103.

The contributors to this discussion included Drs Annis Gillie, T. N. Rudd, and E. Beresford Davies. The general practitioners' part was to know his aged patients well, and to visit them regularly; he must notice early signs of disease, and advise when change of work or occupation was advisable; he must help the aged to plan for themselves, and he must urge upon the community the need to provide for their needs, both physical and mental.

The psychiatric illnesses of the elderly and the problems arising therefrom were discussed. The value of certain drugs, notably chlorpromazine, was mentioned.

Finally the danger of providing too much for the old people to do was raised. It was not helpful to impose stresses on the aged if their needs for amusement were simply met. " Rejuvenation is not at present a feasible aim."