Middle Articles

Medical Emigration from Great Britain and Ireland Since 1962*

JOHN SEALE, M.A., M.D., M.R.C.P.

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In March 1962, using data obtained from official sources overseas, I published (Seale, 1962) the estimate that 600 graduates of the medical schools of Great Britain and Ireland had emigrated annually during the five years 1956-60. There was some criticism of the accuracy of this estimate at the time which, according to the *British Medical Journal* (1964), amounted to "a remarkable explosion of wrath."

In May 1964, with new data also obtained from official sources overseas, more precise figures were published and the estimate made that in the 10 years 1954-63 5,000 doctors born and trained in the British Isles (4,000 from Great Britain and over 1,000 from Ireland) had emigrated—the equivalent of one-quarter of the output of the medical schools during the 10-year period (Seale, 1964). These figures did not differ substantially from those published two years before, and in the paper the series of fallacies was demonstrated in the reasoning used by the former Minister of Health when he purported to prove that emigration on anything like this scale could not have occurred.

Two months later, in July 1964, the results of a comprehensive two-year study undertaken by Dr. (now Professor) Brian Abel-Smith and Miss Kathleen Gales (1964a), of the London School of Economics, were published. This was an independent university-based survey financed by the Nuffield Provincial Hospitals Trust and carried out with the approval of the Ministry of Health and the British Medical Association (*Brit. med. J.*, 1962). It was undertaken because of the controversy aroused by my original emigration paper. Abel-Smith and Gales traced the 1962 country of residence of each doctor in a random sample of 5% of those whose names first appeared in the *Home Medical Register* in the years 1925 to 1959. From their sample they estimated that over 6,100 doctors trained in medical schools in Great Britain and Ireland left the British Isles in the 10 years 1952-61 and were still abroad in July 1962. Their estimate of the number of doctors who were both born and trained in Great Britain alone who left during the 10 years up to 1963 and were still abroad was, they wrote, very close to my estimate of 4,000. They said that the annual loss of about 400 British-born doctors, nearly one-quarter of the output of the medical schools, can be regarded as a serious matter, and "we are in full agreement with Dr. Seale that the scale of medical emigration has been substantially greater than has apparently been believed by the Ministry of Health" (Abel-Smith and Gales, 1964b).

The study by Abel-Smith and Gales covered medical emigration during the period from the second world war until July 1962. They stated: "The number of doctors going abroad has been steadily increasing up to the period 1958-60. The figures of those leaving Great Britain in the last period, 1961-2, suggests a change in the trend, although it must be noted that

the time period covered was only 18 months." They suggested that this lower rate might continue because during the 1960s it has become less difficult for young doctors to obtain permanent posts in the hospital service than it had been during the 1950s.

The purpose of this paper is to confirm Abel-Smith's findings that there was indeed a decline in the rate of medical emigration in 1961 and 1962, but to show that in 1963 to 1965 inclusive the rate has been higher than ever before.

The methods used in estimating the volume of medical emigration from the British Isles to North America, Australasia, South Africa, and Rhodesia during 1963-5 are the same as those used in my 1964 paper, which gave similar results to those produced by Professor Abel-Smith, using entirely different methods. The details of the methodology were given in the 1964 paper (Seale, 1964), and will not be repeated here. The basic data were obtained from the same Government departments abroad. They are the Medical Councils and Boards of New Zealand, New South Wales, Western Australia, South Australia, Victoria, Tasmania, South Africa, and Rhodesia; the Statistics Section of the Department of Citizenship and Immigration of Canada; and the Immigration and Naturalization Service of the United States Department of Justice.

Table I shows the number of British and Irish doctors emigrating to Canada from 1960 to 1965. There was a sharp rise in the number of British doctors emigrating after 1962, and the number in 1965 alone exceeded the total for 1961 and 1962 combined.

TABLE I.—*British and Irish Doctors Emigrating to Canada, 1960-5*

Year	Doctors of English, Scottish, Welsh, and Irish Origin Entering Canada as Immigrants		Doctors from the British Isles Emigrating to Canada (Reduction to 75% of Cols. A and B)*	
	English, Scottish, and Welsh (A)	Irish (B)	British	Irish
1960	136	26	102	20
1961	123	20	92	15
1962	126	11	95	8
1963	215	17	161	13
1964	232	18	174	13
1965	275	20	206	15

Source (cols. A and B): Department of Citizenship and Immigration, Ottawa.
* For methods used in this and subsequent tables to estimate emigration see Seale, J. R., *Brit. med. J.*, 1964, 1, 1173.

Table II shows emigration to the U.S.A. The estimate is based on the assumption that 90% of the graduates of the medical schools of the British Isles who pass the State Board's examinations in the U.S.A. represent the number of emigrants. Emigration from the British Isles to the U.S.A. since 1960 has been fairly steady.

Table III shows emigration to Australia. There has been little change in the annual rate during the 1960s.

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Table IV summarizes the figures of emigration to the three countries already mentioned, and also includes those for New Zealand, South Africa, and Rhodesia.

TABLE II.—*British and Irish Doctors Emigrating to the U.S.A., 1960–5*

Year	Graduates of Medical Schools of Great Britain and Ireland Passing the States Boards Examinations in the U.S.A.		Graduates Emigrating to the U.S.A. (Reduction to 90% of Cols. A and B)	
	England, Scotland, and Wales (A)	Ireland (B)	England, Scotland, and Wales	Ireland
1960	126	66	113	59
1961	91	59	82	53
1962	81	57	73	51
1963	81	58	73	52
1964	105	74	94	67
1965	89	48	80	43

Source (cols. A and B): Council on Medical Education and Hospitals of the American Medical Association.

TABLE III.—*British and Irish Doctors Emigrating to Australia, 1960–5*

Year	Registrations of Graduates of Medical Schools of the British Isles in Five Australian States		Graduates Emigrating to Australia (Reduction to 57% of Cols. A and B)	
	England, Scotland, and Wales (A)	Ireland (B)	England, Scotland, and Wales	Ireland
1960	193	31	110	18
1961	202	11	115	6
1962	169	22	97	13
1963	190	25	108	14
1964	181	24	103	14
1965	213	24	121	14

Sources (cols. A and B): Medical Boards of New South Wales, Victoria, South Australia, Western Australia, and the Medical Council of Tasmania.

The Chart shows the trend of total emigration from Great Britain alone and from the whole British Isles to North America, Australasia, South Africa, and Rhodesia from 1953 to 1965 inclusive. The slight decline noted by Abel-Smith in the years 1961–2 after a peak in the late 1950s is clearly shown with a sharp rise after 1962 to a new record level in 1965.

Although most of the medical emigrants from the British Isles go to the countries mentioned above, some doctors go to other countries. Dr. Whitfield (1963) showed that 20% of British-born medical graduates from Birmingham who emigrated during the 1950s went to other countries, and Professor Abel-Smith's study showed that for the years 1954–63 my estimate of the total for North America, Australasia, South Africa, and Rhodesia should be increased by about 17% to give a more accurate estimate of emigration to *all* countries of doctors born and trained in the British Isles. If it is assumed that for 1963–5 a similar 17% increase is required to account for the doctors who emigrated to other countries then the final estimate for total emigration from the British Isles of doctors born and trained in the British Isles is as follows:

	1963	1964	1965
Great Britain alone	475	490	550
Great Britain and Ireland together	580	620	650

These figures are not estimates of the number of doctors born and trained in the British Isles who physically left the country each year. They are estimates (based upon assumptions about

the movements of doctors which have been shown to be valid in the recent past) of the number of doctors leaving each year who will not return to the British Isles for many years—if at all. By the nature of the problem no final or exact figure of the number of emigrants in any one year can be given before many years have passed. It is, of course, theoretically possible for all British doctors abroad to return tomorrow. Nevertheless there has been a stability in the pattern of movement of doctors which makes it probable that these estimates will eventually be proved roughly correct.

British and Irish doctors emigrating from British Isles to North America, Australasia, South Africa, and Rhodesia, 1953–65.

It may be stated with a fair degree of certainty that in 1965 the loss of doctors from Great Britain by emigration of those born and trained in Great Britain (about 550) exceeded one-third of the output of the British-born graduates from the medical schools in that year. This number is considerably smaller than the 900 net loss of doctors holding U.K. passports from the U.K. during 1964 reported by the Oversea Migration Board (1965). However, the random sampling method used to obtain the Oversea Migration Board's figures leaves a wide margin of error when such relatively small numbers of persons leaving Britain's air and sea ports are involved, and it is unlikely that they have the degree of accuracy obtained by the methods used in this paper.

If doctors born and trained in Great Britain have been emigrating at the rate of about 500 per year in the last three years then there can have been no room for expansion in the number of British doctors remaining in Britain. There has been no expansion.

In 1960 there were 24,346 general practitioners in Great Britain (principals providing unrestricted services, assistants, and trainees). By 1961 the number had risen by 39, but in

TABLE IV.—*British and Irish Doctors Emigrating from British Isles to North America, Australasia, South Africa, and Rhodesia, 1960–5*

Year	Emigration from Great Britain							Emigration from Ireland							Emigration from British Isles
	Canada	U.S.A.	Australia	N.Z.	S.A.	Rhodesia	Total from G.B.	Canada	U.S.A.	Australia	N.Z.	S.A.	Rhodesia	Total from Ireland	
1960	102	113	110	17	12	9	363	20	59	18	4	5	1	107	470
1961	92	82	115	14	13	9	325	15	53	6	5	4	1	84	409
1962	95	73	97	23	24	6	318	8	51	13	4	11	4	91	409
1963	161	73	108	34	22	9	407	13	52	14	1	9	1	90	497
1964	174	94	103	24	17	7	419	13	67	14	1	14	1	110	529
1965	206	80	121	31	27	5	470	15	43	14	1	9	1	83	553

each subsequent year it has fallen at an accelerating rate. By 1965 there were 750 fewer general practitioners than in 1960, nearly all of the fall occurring after 1962. In the early 1950s, on the other hand, the general practitioners were increasing by 300 to 400 per year.

The number of consultants (excluding honorary staff and locumtenents) in England and Wales increased by 1,034 between 1962 and 1965, but this was largely offset by a fall of 933 in the number of senior hospital medical officers in the same period.

In 1960 there were 8,100 junior hospital doctors of registrar grade or below in England and Wales. By 1965 the number had risen by 2,100, but 1,750 of this increase was due to an increase in doctors born outside the British Isles. Between 1962 and 1965 the number of British-born doctors of junior hospital grades fell by 80. The increasing dependence of the hospital service upon doctors from overseas is shown by the fact that in 1960 2,890 junior hospital doctors in England and Wales were born outside the British Isles (36% of the total),

but by 1965 the number from overseas had risen to 4,650 (46% of the total).

Large-scale medical emigration has been a significant aspect of British medicine for over 10 years, and is now a major factor contributing to the dwindling supply of fully trained medical manpower in Britain. In 1964 Professor Abel-Smith wrote that the loss by emigration of the equivalent of nearly one-quarter of the output of the medical schools "can be regarded as a serious matter." In the year 1965 the rate appears to have risen to one-third of the output of the schools.

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Organization and Function of an Accident Flying Squad

JOHN COLLINS,* M.B., CH.B., M.R.C.S., L.R.C.P.

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The first principle for dealing with the seriously injured is to commence treatment as soon as possible. This is most important when urgent resuscitation is required, as with the severely shocked patient. The accident flying squad was developed on this basis, but the team should also be capable of dealing with any emergency which requires treatment at the scene of the incident. The team should be equipped to carry out essential surgery, but this should be limited to the minimum necessary, as obviously the place for surgery is under the ideal conditions of the operating theatre. The flying squad should reach the patient as quickly as possible with the necessary surgical aid.

History

The concept of the flying squad is not a new one. In Germany, when the autobahnen were built the severe type of injury which resulted from high-speed accidents demanded a new organization for their treatment, and mobile operating theatres were developed. At one time a similar scheme was introduced by the Birmingham Accident Hospital. Apparently the main drawbacks to these schemes were the size and relative slowness of the vehicles.

The history of the Derby flying squad dates from 1955. The area served by the Derbyshire Royal Infirmary is both urban and rural, in which there are large industrial and mining concerns as well as agricultural communities. There are also important networks of roads and railways and an airport. Such an area, with a population of almost half a million, has a considerable accident potential. Seriously injured patients may have long distances to travel to the hospital, and it was considered reasonable to organize an accident flying squad based at the hospital, to serve this community. Such a team would be available to

deal with any patient who might be at risk, because of the time delay, before reaching surgical aid. The Derby scheme differs from the experiments in Germany and Birmingham in that it is designed to treat all types of accident cases; in eleven years the accent has been mainly on industrial injuries.

Equipment

The first problem involved when organizing the flying squad was to equip it adequately. There were no available standards for guidance, and a comprehensive list was prepared to cover all possible eventualities. This list proved to be formidable, as many articles were suggested which might be useful but were not essential. Careful pruning reduced the requirements considerably, and eventually a list which appeared to be reasonably adequate was agreed. The suggested instruments, drugs, anaesthetic equipment, dressings, splints, etc., were assembled together to assess the amount of space they would occupy. This demonstrated that even further reduction was necessary.

By obtaining compressed dressings and miniature equipment, where possible, space was saved. Pneumatic plastic splints were found to be space-saving and light. With experience and use some articles of equipment have been discarded and others have been added. By consultation with other departments, improvements in the equipment are constantly being considered. On the whole simple apparatus has been found to be the best because of the special factors of transport and local conditions. It was found convenient to divide the equipment into two categories: the material which must always be taken and the special items which should be available when circumstances required them. All equipment should be inspected and checked at frequent intervals, the surgical instruments and other such material regularly sterilized, and the drugs renewed and replaced by the pharmacist whenever necessary.

*Senior Casualty Officer, Derbyshire Royal Infirmary.