Contemporary Themes

General-practitioner obstetrics: two styles of care

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Abstract

Two systems of general-practitioner obstetric care currently in use in England are compared. In one (Oxford) a large number of doctors, working with community midwives, have autonomous responsibility for the management of patients whose condition conforms with defined booking criteria. In the other (Dulwich) two practitioners, working with hospital midwives, operate a minimal selection policy, but all their patients are reviewed at 36 weeks' gestation by a specialist obstetrician. Despite the differing selection policies which created incongruities in the groups in respect of age, social class, and birthweight distribution, the outcomes in terms of mode of delivery showed no significant differences. The perinatal mortality rates were also similar and appeared to be better than those achieved nationally.

Introduction

At a time when the value of general-practitioner obstetrics is being questioned and a recommendation made that all their patients should see a consultant at least twice during pregnancy,¹ it would seem useful to compare the performance of two integrated general-practitioner obstetric units with different operational policies.

The unit at the John Radcliffe Hospital, Oxford, is used by as many as 60 general practitioners, who each book on average 14 patients a year with a range of one to 45 patients per doctor.² Patients must fulfil established criteria for selection for the unit—for example, nulliparous women under the age of 18 or over 30, or under 152 cm in height are generally not accepted, nor are multiparous women of parity greater than four or over the age of 35. A "normal" medical and obstetric history is a further prerequisite. Doctors and community midwives have autonomy in the management of their patients and the latter do not routinely see a consultant during pregnancy. Nevertheless, a patient may have her care formally transferred to a consultant owing to a perceived problem during pregnancy or labour or, alternatively, consultant aid or advice may be sought while the patient remains in the overall care of her practitioner.

Dulwich Hospital has a general-practitioner unit that in recent years has been used mainly by two doctors working from the same practice who, during 1976-80, booked and delivered between 80 and 140 patients a year. Most patients were from their own list, but a few were referrals from colleagues. The beds

at Dulwich have always been integrated into the consultant unit so that total transfer of care does not usually occur, but help from a consultant or registrar is sought in varying degrees from time to time. The two Dulwich doctors operate a system of "minimal selection" where virtually all comers are given the option of general-practitioner care. Only those destined for elective caesarean section, diabetics, and women with other serious medical conditions are excluded. All the Dulwich patients, however, were seen at 36 weeks' gestation by an obstetric consultant or registrar as part of the regimen of antenatal care (described previously^{3,4}).

Method and results

In 1980, 838 patients were booked and 546 delivered in the general-practitioner unit at the John Radcliffe Hospital. A broadly similar number (544 booked, 531 delivered) were confined in general-practitioner care at Dulwich during 1976-80. Of the total initial bookings at the John Radcliffe only 65.2% actually delivered in the unit, the remainder having been transferred to consultant care either before (23.9%) or during (10.9%) labour. The equivalent figure for Dulwich was 97.6% of patients remaining in general-practitioner care, but because the patients occupy beds within the consultant unit the dividing line between transfer of care and consultant/registrar help is blurred. The 13 patients whose care was totally transferred were those in which the practitioner took no part in care either during labour or in the puerperium. They included five patients in premature labour, three with severe pre-eclampsia, and three selected for elective caesarean section on account of breech presentation.

In table I the age-group distribution of women booked and delivered in the Oxford unit and booked in the Dulwich unit are shown and compared with the national figures for 1980.⁵ Of the Dulwich patients 45.4% were nulliparous, a figure virtually identical to that in original bookings at Oxford although, in the latter, the proportion of nulliparae ultimately delivered in general-practitioner care fell to 33.5%.

In table II the social class of patients booked in the respective units is shown and again compared with the structure for England and Wales, 1980.⁵ Patients at social risk were accepted in both Oxford and Dulwich unless there was a medical contraindication. The mode of delivery and the causes of perinatal death and perinatal mortality rates for both booked and delivered patients in the Oxford Unit in 1980 are compared with those delivered at Dulwich from 1976 to 1980 (tables III, IV). Since it has been suggested⁶ that comparison of crude perinatal mortality rates (especially where small cohorts of patients are concerned) is not a very reliable indicator, we sought further evidence

TABLE I—Patients booked and delivered: age group (%)

Age group	Oxford, 1980		Dulwich, 1976-80	England and Wales, 1980
	Booked (n = 838)	Delivered (n = 546)	(n = 544)	
15-19	6.7	4.8	9.9	9.3
20-24	32.3	32.2	28.9	30.7
25-29	40.6	41.0	33.8	34.0
30-34	18.5	20.0	23.2	19.8
35-39	1.7	2.0	4.2	6.2

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of comparability in our population by examining birthweight distribution. This is shown in table V and again compared with that for total births in England and Wales, 1980.⁵

TABLE II—Patients booked: social class (%)

Social class	Oxford, 1980	Dulwich, 1976-80	England and Wales, 1980
I	10.1	21.9	7.1
II	20.4	17.6	21.3
III	37.1	21.7	47.4
IV	15.1	23.2	15.2
V	2.2	5.7	5.6
Other*	9.3	9.9	3.4
Not known	5.8	—	—

* = Students, unemployed, and forces' dependants.

TABLE III—Mode of delivery (%)

	Oxford, 1980 Booked	Oxford, 1980 Delivered	Dulwich, 1976-80
Caesarean section	4.5	—	4.9
Forceps delivery	12.3	2.6	13.7
Breech	1.8	—	3.5
Spontaneous	81.4	97.4	77.9

TABLE IV—Perinatal deaths

	Oxford, 1980 Booked	Oxford, 1980 Delivered	Dulwich, 1976-80
Total No of patients	838	546	544
Cause of perinatal death:			
Extreme prematurity	2	—	2
Lethal congenital defect	2	2	2
Placental abruption	1	—	1
Macerated stillbirth*	2	1	—
Total	7	3	5
PNMR/1000	8.4	5.5	9.2

* One true knot in cord; one mature intrauterine death of unknown origin.
PNMR = Perinatal mortality rate.

TABLE V—Patients booked: birthweight distribution (%)

Birthweight (g)	Oxford (1980)	Dulwich (1976-80)	England and Wales, 1980
< 1500	0.4	0.4	1.0
1500-1999	0.6	0.2	1.4
2000-2499	3.9	2.8	5.1
2500-2999	16.8	14.5	20.0
3000-3499	39.5	30.4	39.0
3500-3999	29.0	43.9	26.0
> 3999	9.8	7.7	7.5

Discussion

As might be expected from the minimal selection method used at Dulwich the wider spread of age of patients approximates quite closely to the national figures. The effect of the more rigorous selection method used at Oxford is reflected in smaller percentages of patients in the age groups under 20 and over 35 years. The untypical distribution of social class at Dulwich with a high population of social classes I and II and a large population of classes IV and V and unemployed groups results from the close proximity of an area of high-quality housing to a very poor area. The birthweight of the Dulwich babies showed a much higher percentage over 3500 g, and further inquiry showed that just over half of these were born to the 39.5% of mothers in the predominating social classes I and II.

Comparison of mode of delivery shows that the Dulwich patients had a similar operative delivery rate to that of all

patients booked in the Oxford Unit. Patients delivered in general-practitioner care in Oxford, however, had considerably lower rates both for forceps delivery and caesarean section. These results confirm that it is often difficult to predict the mode of delivery during the initial selection process, and this is especially true for nulliparae. Whereas at Dulwich two experienced general-practitioner obstetricians are competent to deal with most departures from normality, at Oxford when problems are identified either in pregnancy or in labour the matter tends to be resolved by transfer to specialist care.

The perinatal mortality rates of patients booked in both units are similar and comparable to the rate quoted by Marsh⁷ in his practice. They are considerably better than the national figure of 13.3 per 1000 in 1980, and it is interesting to speculate why three different general-practitioner units should all achieve lower perinatal mortality rates. Firstly, the practitioners concerned have a special interest in obstetrics and are highly motivated towards optimum care. Secondly, they are dealing individually with small numbers of patients who they know very well. Thirdly, many patients have exercised some personal choice in opting for general-practitioner care and are thus better motivated towards the self-care necessary for good perinatal health. Fourthly, general-practitioner obstetricians working in integrated maternity units in close co-operation with obstetric consultants perhaps provide the ideal setting for contemporary maternity care, and this may be particularly important in populations such as Dulwich with a high proportion of patients in the lower socio-economic groups. Given these factors, a perinatal mortality rate of under 10 per 1000 bookings should be considered the norm for general-practitioner obstetric units of this type.

Two distinct styles of general-practitioner care are presented here. The Oxford unit, which occupies its own beds and is staffed by community midwives, involves many doctors, some of whom attend only a few patients and transfer a high proportion to consultant care. This system gives a broad service to the community, offering an alternative pattern of care to conventional specialist referral for a considerable number of patients. Even though the catchment area of the Oxford general practitioner-unit is considerably smaller than that of the whole John Radcliffe Hospital it still accounts for about 10% of total deliveries each year. At Dulwich a tiny number of doctors (working with hospital midwives) offer a more comprehensive service to patients in their own practice in which continuity of care is guaranteed to the great majority throughout pregnancy and labour. This entails a process of specialisation within the practice but in no sense represents a comprehensive service to the community, since general-practitioner unit deliveries at Dulwich represent under 5% of the total deliveries in the King's College Hospital district of which Dulwich forms a part.

It is a matter for debate which is the right direction for general-practitioner obstetric care to take. At Oxford the general practitioner remains a generalist and his obstetric commitment is unlikely to affect his overall work load to any great extent. At Dulwich he is seen in some degree as a specialist and, as a result, between 20% and 30% of his total practice commitment is likely to be concerned with obstetrics or related areas.

Our results also seem to suggest that mandatory review of a patient at 36 weeks' gestation by an obstetric consultant or registrar does not influence either the mode of delivery or overall perinatal mortality rate to any appreciable extent. The Oxford figures suggest that most practitioners, even those not to any major degree concerned in operative intranatal care, are well able to identify problems arising in pregnancy or labour and competent to take appropriate action by referral of their patients to specialist colleagues. In our view it could be argued that mandatory review by specialists of all general-practitioner booked patients could be counter-productive. We think it is more important that general-practitioner obstetricians should have appropriate postgraduate training and a sufficient annual caseload to maintain their skills. All general-practitioner maternity units should operate a system of self-audit and provide facilities for continuing education. In this way safe and acceptable alterna-

tive systems of care can be provided for many women, and pressure on specialist units can be relieved.

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References

- ¹ House of Commons Social Services Committee. *Second Report. Perinatal and neonatal mortality*. London: HMSO, 1980. (Short Report.)

- ² Bull MJV. Ten years' experience in a general practitioner obstetric unit. *J R Coll Gen Pract* 1980;30:208-15.
- ³ Oldershaw KL, Brudenell JM. The use by general practitioners of obstetric beds in a consultant unit: report of the first 500 cases. *Br Med J* 1968; iii:112-6.
- ⁴ Oldershaw KL, Brudenell JM. The use by general practitioners of obstetric beds in a consultant unit: a further report. *Br Med J* 1975; ii: 139-42.
- ⁵ Office of Population Censuses and Surveys. *Birthweight statistics 1980*. London: OPCS 1981. (OPCS Monitor Ref DH3 81/4.)
- ⁶ Chalmers I. The search for indices. *Lancet* 1979; ii:1063-5.
- ⁷ Marsh GN. Obstetric audit in general practice. *Br Med J* 1977; iii:1004-6.

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MATERIA NON MEDICA

Exploring Auld Reekie

The image of Scots and of Scotland which I acquired in my schooldays was based to a great extent on history books and Walter Scott's romantic novels. The tradition left by the Scots in my country also played a part. In sixteenth- and seventeenth-century Poland Scottish traders and soldiers of fortune were found in large numbers. Their trading acumen and military valours were highly appreciated. Many of them settled there for good, as shown by Scottish names still found in Poland, such as Gordon, Taylor, and Fraser.

The opportunity to learn more about Scotland and to visit Edinburgh, "Auld Reekie," came unexpectedly with war, when after the collapse of France in June 1940 Polish troops were evacuated to Great Britain. I found myself in a military camp near Biggar, Lanarkshire. Having got three days' leave I and a friend made a journey to Edinburgh, of which I had only the notion that it was a charming and beautiful city. In those three days we saw practically everything worth seeing of the historic buildings, galleries, museums, monuments, and parks. We even climbed Arthur's Seat. The first contact surpassed all our expectations.

When in 1941 I came to Edinburgh to stay I had the opportunity to search in my spare time for relics of historical associations between Scotland and Poland buried in the archives and libraries. In the archives of the City Chambers I found a document with a list of Scottish traders sailing to "Polland" at the end of the sixteenth century and a will of Robert Brown, a Scottish merchant in Poland, founding in 1714 a bursary for Scottish and Polish students studying Protestant religion at Edinburgh University; this bursary is still in existence. In the Scottish Register House there was a sixteenth century document concerning a lion sent by the King of Poland to the King of Scotland; a collection of birth briefs of Scots who settled in Poland and wills of those who died there; and a document dated 1855 on the "Crimean war against Russia," issued by the British Government which concerned the organisation of a Polish division, formed from refugees who had escaped from Russian-occupied Poland. In the National Library of Scotland a letter from a Scottish agent in Poland (1615), addressed to King James, complained of the bad behaviour and "dissolute form of living" of some Scots there.

Wandering through the old cemeteries I stumbled across the graves of my countrymen who lived in exile in Edinburgh over 100 years ago. In the Warriston cemetery I found the grave and obelisk of count Valerian Krasinski, a historian who was sent to London as an emissary during the national uprising against Russia in 1830-1 and, nearby, the grave of Felix Janiewicz, a violinist and composer, who died in 1848. In the Calton cemetery I found the grave of Dr Gregorowicz, a participant in the national uprising, who, with a group of other exiled soldier-students, studied medicine in Edinburgh in the 1830s and died of typhus at the age of 30. Polish soldier-students studying medicine in Edinburgh in the second world war had their predecessors.

Another soldier-student and graduate of the University of Edinburgh, Dr Lyszczyński, practised at 10 Warriston Crescent. A bronze plaque on the wall of the house commemorates the stay there in 1848 of Frederick Chopin. The great composer, also an exile, whose health was rapidly deteriorating, found at his compatriot's home relaxation and medical care after his tiring visits and concerts in Scotland. A bronze plaque at 68 Queen Street (now Erskine House)

indicates the place where on 4 October 1848 Chopin performed his final concert in the then existing Hopetoun Rooms. Searching in the archives deposited in the strong room of Edinburgh University Library I found an original pencil portrait of Chopin sketched in Paris shortly before his death in 1849. The house in Warriston Crescent is now the place where the Edinburgh Chopin Circle, with a Scottish-Polish membership, has twice a year since 1965 held piano recitals. So the past is linked with the present.—WIKTOR TOMASZEWSKI, former senior lecturer in the Polish School of Medicine, Edinburgh.

Mind bending

Always having believed that the sign of a good teacher is that he is a chapter ahead of the pupils I thought I was doing marvellously well with my children's homework until I realised that not only was there a generation gap between my teenage sons and myself but there was even a bigger gap between the curriculum of matriculation days and that of GCE A levels. It soon became apparent that the only way I could impress them was by pulling rank, which in the long run would be quite counterproductive. So I decided to beat them at their own game and seriously considered studying at least one subject for A level. Choice of subject was not quite so easy. I had to choose a subject that would impress them. As both my sons are philistines, appreciation of art or music, Egyptology, or ancient Greek civilisation were non-starters. I also had to choose a subject in which I did not have to "unlearn" what I had learnt in my days. When I had learnt my physics electric current was still going round in a circle from positive to negative, and splitting the infinitive caused more disastrous results than splitting the atom. Chemistry was out, as what I remembered of chemistry was what I had revised listening to Tom Lehrer. Biology was so near to medicine, at least in my sons' minds, that it would have amounted to cheating. In the end I decided to do mathematics, a subject in which I had to unlearn the least, and in which I could, I hoped, carry on from where I had left off. I duly joined the evening class at the local technical college. I had to endure a few schoolboyish jokes about homework and satchel from my sons, but when they realised that I was in earnest they clammed shut.

It is surprising how difficult it is to study a subject and to sit an examination after a lapse of so many years. Expediency and pressure of work force one to develop a technique of selective reading and understanding. One studies only that part of the subject which is of immediate interest and application. Of course, a slipshod approach as far as examination is concerned would be disastrous. I found even greater difficulty in attuning my mental processes to an exact logical subject. Having dealt with a hundred "maybes," "perhaps," and "don't knows" in medicine, I am now dealing with a subject in which a mistake committed in the first step would show up in the end and no flourish of pen or jargon would hide the conceptual blunder.

All said and done, it is great fun to go on a mental jog with calculus, get lost in the graphical maze of co-ordinate geometry, and find one's way back to base with triangulation. I do not know when I will earn any respect from my sons for this effort. The only thing I have earned as yet is the sobriquet "masochist."—ARUN M GORDHANDAS, Scunthorpe.