

Hospital Topics

Contribution of isolated general practitioner maternity units

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Abstract

A postal survey of isolated general practitioner maternity units in England and Wales showed that just under 4% of deliveries take place in them. Eight per cent of general practitioners are on the staffs, and in 87% of units midwives are integrated with the community midwifery service. Sixty two per cent of units have visiting consultant cover. Fifty seven per cent of patients are booked and delivered in the unit, 28% are booked and deliberately delivered elsewhere, 5% are transferred in the antenatal period, and 10% transferred as emergencies. The perinatal mortality rate for cases booked and delivered in the units is 1.1 per 1000. The number of emergency transfers was appreciably less for those units that were prepared to do their own operations. Thirty five per cent of these units are liable to be cut off in bad weather, and they will continue to fulfil an essential role in the midwifery services.

Introduction

The role of isolated general practitioner maternity units has been debated in the United Kingdom since the first national survey of perinatal mortality, which suggested shortcomings in the standard of care available, and poor results where transfer in labour was required.¹ Several units have closed over the past 25 years, but little information has been produced about their activities as an entity recently, though the results of a sample survey of general practitioner hospitals in 1977 showed a perinatal mortality of 3.5 per 1000, suggesting that case selection for delivery in such units was correct.² We undertook a survey of isolated units in England and Wales in an attempt to update this information.

Method

From Department of Health and Social Security and Welsh Office statistics we identified 131 isolated general practitioner maternity units—that is, on separate sites from consultant ob-

stetric departments. Each was sent a questionnaire which sought information on geographical details, equipment, facilities, and staffing, and annual statistics for 1982. An obstetric consultant, midwives, administrators, and epidemiologists advised on its format. Permission was sought from regional health authorities to administer the questionnaire and midwives from the Brecon Maternity Unit telephoned their opposite numbers in each unit to find out to which midwife or nursing officer the questionnaire should be addressed. It is important to identify a correspondent. Experience of the 1977 survey had shown that nursing staff are better than administrators, and much better than doctors, in completing questionnaires. The staff of many units felt somewhat threatened by this inquiry, and we undertook to publish all information in non-attributable form. Eventually, an 89% response was obtained within six weeks of posting the questionnaire, producing more than 5000 items of information.

Results

The 116 responding units contained 1434 obstetric beds, averaging 12 beds a unit (range 1-31). The typical unit is 16 miles from the nearest district general hospital (range 1-57 miles) and 35% of units are liable to be cut off in bad weather. The larger units are generally situated nearer their district general hospitals, whereas most units more than 20 miles from a district hospital were smaller.

The table gives details of the equipment and facilities of the units.

TABLE 1—Percentage of general practitioner maternity units with facilities available

Facility	Percentage
Forceps	99
Flying squad	91
General anaesthesia	68
Incubator	60
Intravenous infusion pump	35
Ventouse	22
Operating theatre	21
Cardiotocograph monitor	10
Birthing stool	7

A total of 2331 general practitioners staff 111 of the units—about 8% of all general practitioners. Units nearest to consultant units had the largest staff of general practitioners. The average number of general practitioners per unit was 21 (fig 1). Regrettably, in our inquiry about midwife staffing we omitted to specify "whole time equivalents" so that the number of midwives has probably been overestimated. The overall average strength of midwife staff is eight per unit. Eighty seven per cent of units are integrated with the community midwifery service and discrepancies in staffing ratios are in part explained by amount of community work being performed and the number of postnatal transfers in some instances. Much of the community work is for patients delivered in neighbouring consultant or combined units. The overall level of experience provided is approximately 10 deliveries per general practitioner and 20 deliveries per midwife.

Consultant cover is provided for 62% of units and the distance

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from the district hospital does not seem to affect the presence or frequency of consultant visits, which averages one a week overall. This level of consultant support compares favourably with that for any other specialty providing service in general practitioner hospitals. Nevertheless, 38% of units have no visiting consultant. Booking policy divides the units approximately into thirds, consultant being responsible for 33%, both consultant and general practitioner for 35%, and general practitioner only for 32%: as expected, most of these last units have no visiting consultant.

Figure 2 shows the total number of patients booked and how the bookings are distributed among the units, and fig 3 shows the same for deliveries. Figure 4 shows how the discrepancy between bookings and deliveries is achieved: 57% are booked and delivered in the unit; 28% only attend antenatal clinic and are deliberately delivered elsewhere, 5% are transferred for delivery in the antenatal period, and emergency transfers comprise the 8% who are transferred in labour, 1% transferred for premature labour, and 1% for failed induction.

A total of 647 forceps deliveries was performed, giving an average rate of 3.6% (fig 5). A total of 36 ventouse deliveries was performed. Caesarean sections were performed only by four units and the total number was 43. The total number of episiotomies was 4756 and the average rate and distribution is shown in fig 6. The total number of perinatal deaths was 21 for 115 units, giving an overall rate of 1.1 per

1000. Differences in individual booking policies made it impossible to produce accurate statistics on the perinatal mortality for patients booked by the units but delivered elsewhere. Eighty five units, however, gave a figure of 11.1 per 1000 for their cases delivered elsewhere and the crude overall figure of 5.2 per 1000 for all their known perinatal deaths.

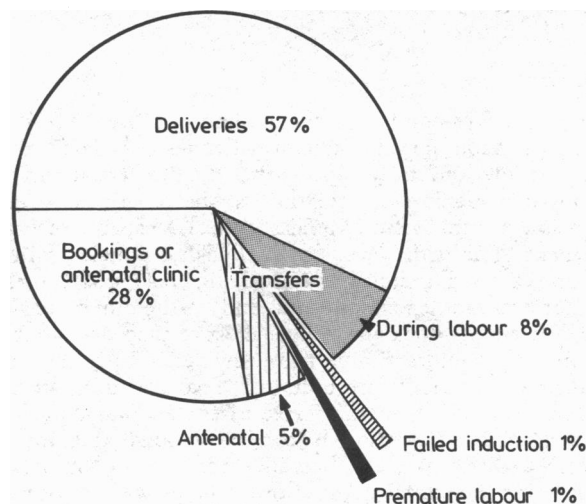


FIG 4—Outcome of bookings.

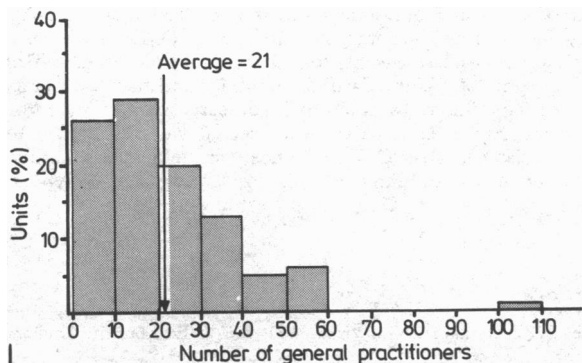


FIG 1—Distribution of number of general practitioners in the units.

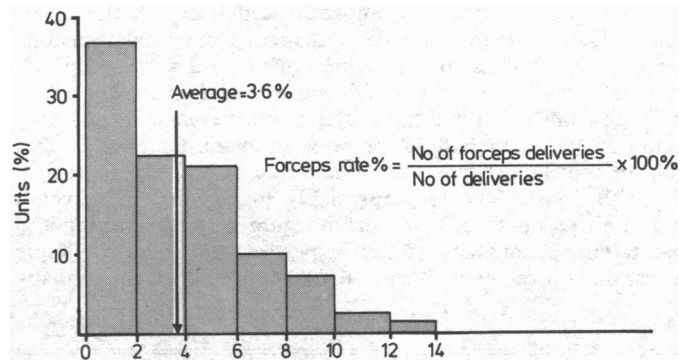


Fig.5

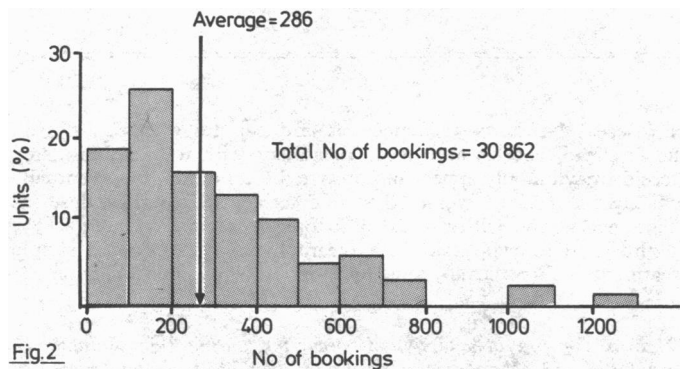


Fig.2

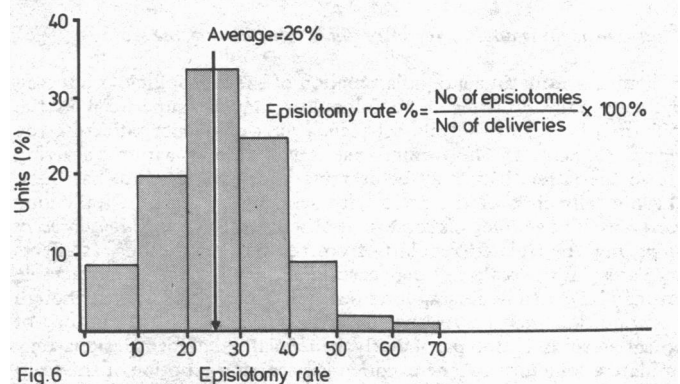


Fig.6

FIG 5—Distribution of rate of forceps delivery. FIG 6—Distribution of rate of episiotomies.

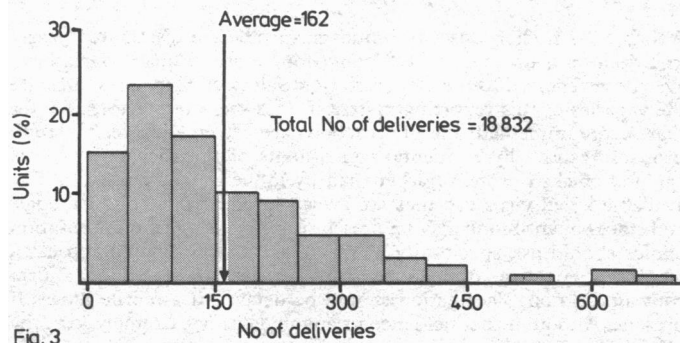


Fig.3

FIG 2—Distribution of number of bookings in the units. FIG 3—Distribution of number of deliveries in the units.

Transfer in labour is the chief index of a unit's failure to fulfil its self appointed role. For the larger general practitioner units increased distance from the district hospital seems to lower the transfer rate, which is unaffected by booking policy, and by the frequency of episiotomies. Larger units with more than 6% of forceps deliveries had much lower transfer rates, though this was based on six units only. The effect of the use of the ventouse is similar, but less pronounced because of the few units using it. Calls to the flying squad varied widely in the same way: 91% of the sample

had a flying squad, but almost half of these never called it. The average number of calls to the flying squad was for just over 1% of deliveries. Distance from the district hospital and responsibility for booking policy were unrelated to calls to the flying squad, but the rate was noticeably less for large units that performed more than 6% of forceps deliveries. Again, this was based on only six units. Rates for postpartum haemorrhage were related, as one would expect, to the number of episiotomies and the number of forceps deliveries. The transfer of babies to special neonatal care averaged 3%, but showed no consistent pattern in relation to distance, responsibility for booking, or interference rates.

Discussion

Our results re-emphasise the findings of the 1977 survey that the perinatal mortality rate of deliveries in isolated units is acceptably low, and indeed approaches the theoretical minimum that might be achieved. Nevertheless, the process of selection responsible for this state of affairs is clearly capable of further refinement. The wide variations in booking policies, whereby some units are acting simply as an outlying booking and antenatal clinic for a distant consultant unit, and, at the other end of the range, a few units book and deliver most of their own abnormal cases, makes it impracticable to review realistically the results of transferred cases. Those units that recorded the number of both their own and their transferred cases of perinatal mortality, however, achieved a figure below the national rate for their transferred cases, and the overall recorded rate of perinatal mortality for their total number of bookings was 5.2 per 1000.

If we are seeking to improve the service offered it is more logical to focus attention on the reasons for outside help being required for cases that are booked for delivery in the units. The indices of failure are the emergency maternal transfers, the number of calls to the flying squad, and the number of neonatal transfers. Fourteen per cent of total deliveries occurred in the few units that had high rates of interference in their own right. These units had lower rates of maternal transfer and calls to the flying squad, and their rate of transfer to special care baby units was not appreciably higher than the overall rate. This seems to be a powerful argument for recruiting and maintaining enough obstetric expertise to perform simple operations on the spot. Neonatal transfers to special care baby

units averaged just over 3%, which is comparable with the 2.7% recorded by MJV Bull (unpublished report of John Radcliffe Hospital general practitioner maternity unit, 1982).

The fact that 35% of units are liable to be cut off in bad weather is a compelling reason for maintaining obstetric facilities on the spot. All general practitioners with experience of domiciliary obstetrics agree that the advantages of regular staffing, satisfactory telephone communications, good light, and an obstetric bed render an isolated unit much safer for delivery than most patients' homes. A further advantage of the isolated unit is in maintaining the practical skill of midwives where the bulk of their time is inevitably spent on community work.

Our findings confirm the safety of delivery in isolated units and have identified some of the factors that seem to be responsible. We conclude that a greater role for the general practitioner obstetrician participating in operative interference will lead to improved results. A national survey of this sort is of little value in identifying possible improvements in the working practice of each unit. This is most likely to be achieved by a regular meeting of its obstetric liaison committee to consider an annual audit.

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What treatment is advised for intractable folliculitis of the scalp?

Folliculitis means an acute inflammation of the hair follicle producing erythema and a pustule. The folliculitis may be superficial in the epidermal length of the pilo sebaceous duct or deeper, affecting the dermal element. In the former case it will resolve without scarring and in the latter there may be scarring and, on the scalp, hair loss. Chronic folliculitis of the scalp with scarring is found in folliculitis decalvans. The aetiology is somewhat obscure, although *Staphylococcus aureus* may be isolated regularly from the pustular lesions. It affects large areas of the scalp leaving scarring and baldness. It is intractable but may be controlled using long term systemic antibiotics. Although this condition may be related to seborrhoeic dermatitis, the use of topical steroids is not particularly beneficial. Acneiform lesions may simulate a folliculitis. Acne excoriée is a scarring eruption of the scalp margins that is seen as crusty, excoriated areas related much more to stress than to any infection. Other lesions may be seen on the shoulders or the centre of the chest. Curiously, there is a reasonable response to tetracycline used in a dose of 250 mg twice daily for at least three months. Unfortunately relapse after stopping antibiotics is common. In pili incarnati recurvatum chronic folliculitis occurs as a foreign body granulomatous reaction to ingrowing fragments of hair. Firm keloid papules follow the folliculitis and become confluent to form horizontal bands or plaques, particularly over the occiput. Topical antibacterial agents such as povidone-iodine (Betadine) or fusidic acid (Fucidin) with the aid of intermittent courses of systemic antibiotics may arrest the progress of the inflammatory changes. Lastly, rosacea of the scalp is not uncommon in balding men and may present as recurring crops of pustules. There are usually signs

of rosacea elsewhere—telangiectases and papules with pustules on the forehead, cheeks, and nose. Treatment with topical fluorinated steroids may initially appear to improve the condition, but eventually will always make it worse. Systemic tetracycline in low dose, as mentioned above, with the aid of a topical preparation such as 1% sulphur and salicylic acid in a cream base is an effective simple treatment.—L G MILLARD, consultant dermatologist, Nottingham.

What is the risk of anaphylaxis occurring during routine influenza immunisations? What precautionary steps should be taken by doctors and nurses conducting immunisation clinics?

About 1.5-2 million doses of influenza vaccine are distributed yearly in Britain and up to early 1983 only four cases of anaphylaxis have ever been reported to the Committee on Safety of Medicines. Despite the vagaries of this reporting system it does seem reasonable to infer that severe immediate allergic reactions are extremely rare. Most are probably caused by incidental constituents of the vaccines, such as egg and chicken protein, rather than by influenza antigen itself. The available killed virus vaccines are grown in embryonated hens' eggs, and traces of antibiotic may be present in some. Staff in immunisation clinics should ask specifically about allergies. The inability to eat a whole egg because of hypersensitivity reactions would be a firm contraindication. Vaccination should be delayed if a febrile illness is present. Although the incidence of anaphylaxis is extremely low, the effects of this life threatening condition are reversible, and adrenalin and a means of injecting it should always be at hand.—GLYN WILLIAMS, lecturer in infectious diseases, Glasgow.