## Letters to the Editor

HEALTH

## SAFETY OF TERMINATION OF PREGNANCY: NHS VERSUS PRIVATE

Six.—Termination of pregnancy is now one of the most common operations and, because all cases in the UK have by law to be notified, it is the only therapeutic procedure where a direct comparison between the National Health Service (NHS) and the private sector of medicine is possible. The published figures refer to the place where the abortion was done and some abortions in NHS hospitals will have been done privately by the local consultant gynaecologist. If the deaths under these circumstances are known, it would be helpful if they were published. However, the numbers are unlikely to be large since in areas where the gynaecologists are sympathetic to abortion the ratio of private/NHS abortions will tend to reflect the ratio of private/NHS operations in general, whereas gynaecologists who restrict NHS abortion facilities will, presumably, likewise refuse to abort privately. In any case operations done personally by consultants in NHS hospitals should in theory be especially safe and therefore likely to improve the apparent safety of the NHS.

Nearly 2 million abortions were notified from April, 1968, to the end of 1982, with a case fatality rate of  $9\cdot3$  per 100 000, which compares favourably with the safety of other surgical operations normally done under general anaesthesia. There were 769 008 abortions in NHS hospitals with 168 deaths, a rate of 21·85 per 100 000. In the private sector there were 1192 878 abortions with 15 deaths, a rate of 1·26 per 100 000. The risk of death from therapeutic abortion is 17·3 times as high within the NHS as it is in the private sector of medicine.

Do abortions in the NHS include a larger proportion of women who are seriously ill and therefore more likely to die at operation? This question cannot be answered but since virtually every abortion death analysed has been accidental and due to complications of the operative procedure, it is irrelevant.

Did the discrepancy occur only in the early days of the Abortion Act, at a time when NHS gynaecologists were learning abortion techniques? This does not seem to be true since in the last five years reported (1978–82) there were 295 640 abortions in NHS hospitals with 13 deaths (4·4 per 100 000) whilst the private sector did 575 180 abortions with 2 deaths (0·35 per 100 000).

Does the NHS carry an unequal load of late and therefore more dangerous abortions? The load is unequal but the report from the Royal College of Obstetricians and Gynaecologists on late abortions in England and Wales shows that the higher proportion of late abortions falls upon the private sector.

There is no obvious reason for the very large discrepancy in abortion safety between the two sectors of medicine. The medical profession should institute an inquiry to try to determine the cause, with a view to improving the NHS facilities. Perhaps we should also seek statistics about other surgical and medical procedures with a view to forming an objective comparison between the two sectors of medicine.

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## RISK OF SPONTANEOUS ABORTION IN ULTRASONICALLY NORMAL PREGNANCIES

SIR,—We read with interest the letter by Dr Christiaens and Dr Stoutenbeek<sup>1</sup> (Sept 8, p 571). We have completed a similar study to ascertain the background rate of spontaneous abortions in pregnancies thought to be normal by ultrasound assessment at a gestational age of 7-12 weeks. These figures are necessary before the added risk of spontaneous abortion after chorionic villus sampling can be estimated.

18 400 ultrasound scans from our department, between 1981 and 1983, were reviewed. Criteria for inclusion in the study population were an ultrasound scan at 7-12 weeks of pregnancy and a normal embryo or fetus by current ultrasound assessment. The outcome of pregnancy was then obtained from two sources—the delivery

RISK OF SPONTANEOUS ABORTION AS FUNCTION OF MATERNAL AGE

	Maternal age at delivery			
	< 30	30-34	35 - 39	≥40
Pregnancies with a				
known outcome*	347	238	133	16
Spontaneous abortions	5 (1.5%)	0 (2.5%)	6 (4-5%)	0

\*Does not include terminations.

records at our hospital and, by telephone or visit, the referring physician. The information recorded included the indication for the ultrasound scan, maternal age and gestational age at the time of the scan, and date of last menstrual period. Information on outcome included maternal age at birth, gestational age at time of spontaneous abortion or birth, and parity. 920 patients met the study criteria. Pregnancy outcome was obtained in 796 cases (86·5%), among whom were 17 confirmed spontaneous abortions (pregnancy loss at 20 weeks' gestation or less). Data were analysed for risk of spontaneous abortion in respect of maternal age at the predicted time of delivery (see table).

In only 3 cases were the spontaneous abortion and the ultrasound examination within the same week. The other 14 pregnancies ended in miscarriage at least 2 weeks after the scan. None of the women having a spontaneous abortion had amniocentests, although 6 were aged 35–39. For the normal deliveries the indications for ultrasound were gestational age 61-8%, spotting  $27\cdot3\%$ , and others  $10\cdot9\%$ . For the spontaneous abortion group, the percentages were 35%, 65%, and 0%, respectively. Of the 17 patients who went on to spontaneous abortions, 16 had scans at 10 weeks or earlier, showing a normal viable embryo or fetus.

Whereas Christiaens and Stoutenbeek felt that their population might have been unrepresentative since their patients were seen at a university hospital prenatal clinic, we feel that our population is not similarly biased. The lack of pregnancy outcome follow-up in 13.5% of pregnancies was unfortunate but when indications for ultrasound scan were analysed, the percentages for the unknown-outcome group were similar to those for the normal deliveries.

Gustavii looked at fetal losses at given gestational periods related to the age of the mother. From the 14th week of gestation the fetal loss rate, for all ages, was  $2 \cdot 3\%$ , a figure very similar to our  $2 \cdot 13\%$  (17 spontaneous abortions in 796 patients).

Published reports on spontaneous abortion have not usually taken into account ultrasound confirmation of a normal embryo or fetus. Berry<sup>2</sup> reported that by 8 weeks of amenorrhoea 66% of fertilisations are lost. After 8 weeks abortion losses were 3%. Wilcox et al3 looked at the spontaneous abortion rate over time and compared two cohorts of women a generation apart. The spontaneous abortion risks for the two cohorts were 16.9% and 13.1%. The age specific risks of spontaneous abortion and the gestational duration of spontaneously aborted pregnancies did not differ between the two groups. This study was done without ultrasound documentation. Other factors such as obstetric history, maternal age, and prenatal factors must be considered when the added risk of chorionic villus sampling is being estimated. Women who had had no previous pregnancy or no previous successful pregnancy had a significantly increased proportion of embryos with growth disorganisation and early abortion, as shown by Poland et al.4 Maternal age effects have been shown by both our study and that of Gustavii. Prenatal factors such as vaginal bleeding or spotting may having different risks when compared with uncomplicated prenatal conditions.

This is the second report on the frequency of spontaneous abortions in ultrasound-assessed intact pregnancies. The rate of spontaneous abortion was 2.13% and there was an increasing risk with advancing maternal age (table).

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