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Existence and quality of written antenatal screening policies in the United Kingdom: postal survey

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The assessment of antenatal care of women at increased risk of having a baby with Down's syndrome, neural tube defect, thalassaemia, and cystic fibrosis that was undertaken by the national confidential inquiry into counselling by non-geneticists revealed several problems, including poor record keeping.[1] These problems were reported to the Department of Health in five specific papers and four summary, peer reviewed papers and on the internet.[2] The Royal College of Obstetricians and Gynaecologists then issued guidelines recommending that antenatal units have written policies for screening for Down's syndrome and for neural tube defect and that haemoglobinopathy screening be offered to all patients whose ethnic origin makes them susceptible.[3] There is less consensus on screening for cystic fibrosis (UK National Screening Committee, joint meeting of the antenatal and child health screening subgroups, cystic fibrosis workshop, London, 2 June 1999). We assessed the response among antenatal staff to the outcomes of the national confidential inquiry.

Methods and results

In 1999 directors of obstetrics and midwifery throughout the United Kingdom were asked to complete an anonymous questionnaire concerning their awareness of the national confidential inquiry and its effects on practice. (Copies of the questionnaires are available on the *BMJ*'s website.) Midwives were also asked to submit their unit's written policies, which we assessed using the royal college's criteria (table).[3]

A total of 242 obstetricians were sent questionnaires, 181 (75%) of whom responded. Of these, 29 (16%) were aware of the inquiry (four having supplied information to it), 13 (7%) were aware of the specific recommendations for Down's syndrome, 7 (4%) those for neural tube defects, and 6 (3%) those for cystic fibrosis. Four obstetricians stated that they had implemented recommendations, and one was auditing their effect on practice. Of the 273 midwives who were sent questionnaires, 160 (59%) responded; 33 (21%) were aware of the inquiry, 27 (18%) were familiar with the recommendations for Down's syndrome, 13 (9%) those for neural tube defects, and 9 (6%) those for cystic fibrosis. The figures for obstetricians and those for midwives are not evidently related.

Thirty nine units (24%) lacked local and regional policies for Down's syndrome, 55 (34%) for neural tube defect, 104 (65%) for haemoglobinopathy, and 125 (78%) for cystic fibrosis; 55 units updated their policies annually, 36 "[when] required", one every five years,

Adherence of midwifery units' written policies to Royal College of Obstetricians and Gynaecologists' guidelines on screening*

Royal College guidelines criterion	No (%) of policies fulfilling criterion	Comments
Clear statement of which test is available	61 (94)	Missing in one policy on Down's syndrome and three on haemoglobinopathy
Clear statement of which patients are routinely to be offered test	45 (69)	11 offer testing for Down's syndrome to all, 9 to women aged 30-38; three offer haemoglobinopathy testing to unspecified ethnic groups, one universally; both policies covering cystic fibrosis state family history as basis for screening
Personnel responsible for offering screening or counselling are specified	13 (20)	Unrelated to condition to which policy referred
Clear statement of cut-off values for normality	22 (34)	In 4/14 of policies for both Down's syndrome and NTD, 5/20 for Down's syndrome, 5/11 for NTD, and 8/18 for haemoglobinopathy
Clear guidelines on referral for abnormal screen	26 (40)	9/18 of policies covering haemoglobinopathy, 1/2 covering cystic fibrosis

*Of 65 written policies, 20 covered Down's syndrome, 11 neural tube defect (NTD), 14 both Down's syndrome and NTD, 2 cystic fibrosis, and 18 haemoglobinopathy.

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Copies of the questionnaires are available on the BMJ's website

and one every three months. Neither awareness of the inquiry nor whether a coordinator was responsible for screening had an effect on the updating of policies. In 108 units (90%) policies were said to be agreed by everyone implementing them. One unit reported that community midwives were excluded from agreement of policy, another that medical staff constructed policies without consulting midwives. Written policies were received from 65 midwifery units; the adherence of these policies to the royal college guidelines is shown in the table.

A key person responsible for coordinating screening was reported in 106 units (68%). This correlated with the existence of a local policy for Down's syndrome ($P = 0.045$) but not for neural tube defect or haemoglobinopathy. Of these people 42 were midwifery managers, 23 specialist coordinators (including one genetic counsellor), and 18 consultants.

Where written policies existed they varied widely in adherence to the guidelines, and only one covered all five points. There was no evidence that obstetricians' and midwives' awareness of the inquiry (the evidence base for many policies) was consistent within units. Community midwives were sometimes excluded from policymaking, even though they were relied on for identification and initial counselling of women. One policy "agreed by all" had criteria for screening and referral that differed for each named consultant.

Comment

We found that antenatal units were generally unaware of the royal college's recommendations on screening. National guidelines and local written policies should be adopted to promote informed choice and equity of service.[1] Coordinated antenatal genetic screening will be even more important with the mapping of the human genome. Units without an identified person responsible for antenatal screening face the risk of being overwhelmed by advances in the field, and national audits will be compromised if no single person can be approached for reliable information.

Competing interests: None declared.

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Contributors: BL conceived the study and distributed questionnaires. BL and KC collated and analysed data. HJH contributed to interpretation and analysis of data. The paper was written jointly by all authors. RH is the guarantor for the study.

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Drug points

Tachycardia associated with moxifloxacin

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The fluoroqinolone grepafloxacin has been associated with tachycardia in animals and humans.[1 2] It was eventually withdrawn from use owing to prolongation of the QT interval. Another fluoroquinolone, moxifloxacin (Avalox, Bayer Vital), was introduced in Germany in September 1999 and two months later in the United States. The chemical structure of moxifloxacin is similar to that of grepafloxacin, and both drugs have a broad spectrum of activity against bacteria, including Gram positive bacteria. Up to March 2000 about one million patients have been treated with moxifloxacin, and half of them have been evaluated for adverse events (Bayer Vital, personal communication). We describe the first case of tachycardia associated with moxifloxacin.

A 49 year old non-febrile man was prescribed moxifloxacin for sinusitis and bronchitis. About 45 minutes after taking the daily dose of 400 mg moxifloxacin he developed tachycardia (120 beats per minute). About 60 minutes before taking the moxifloxacin he had taken 500 mg aspirin for a headache. He described the tachycardia as "thumping" palpitations, which he had never before experienced. The symptoms lasted for 45 minutes. Tachycardia did not recur when moxifloxacin was restarted. The patient has no history of cardiovascular disease and regularly exercised on cycle and rowing machines. The day before the tachycardia an electrocardiogram was recorded that gave normal results (sinus rhythm 75, no abnormal changes).

We informed the German Federal Institute for Drugs and Medical Devices and the Drug Commission of the German Medical Profession. They cited 19 other reported cases of tachycardia in association with moxifloxacin.

The underlying mechanism may be vasodilatation either directly or indirectly owing to release of histamine with reflex tachycardia. These effects have been described for fluoroquinolones such as flosequinan.[3 4] Tachycardia could also be due to prolongation of the QT interval. Prolongation (QT interval >450 milliseconds) has been documented in 38 patients treated with 400 mg moxifloxacin daily.[5]

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Endpiece

For a sundial

Loss and Possession, death and life are one,
There falls no shadow where there shines no sun.

Hilaire Belloc (1870-1953), *For a sundial*

Submitted by Fred Charatan,
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