SHORT REPORT

Offering routine antenatal testing for HIV and hepatitis B in the rural setting of Cornwall

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Before Department of Health directives to offer HIV and hepatitis B (HBV) testing to all pregnant women, there was little such screening in Cornwall. Through a multiagency collaborative approach a new antenatal screening programme for HIV/HBV has been introduced with high uptake in the first year (HIV 92% and HBV 93%). We also report the findings of a questionnaire survey of community midwives who alone offer antenatal HIV/HBV testing in Cornwall.

The transmission of HIV and hepatitis B (HBV) infection from mother to child can be substantially reduced by appropriate interventions.^{1–4} Cornwall is a rural county with a diffuse population and a low incidence of HIV and HBV. In 1999, 10 and 11 cases, respectively, were detected by Truro Public Health Laboratory (TPHL), which serves a population of 400 000. There are approximate 4000 deliveries per year in this area. All the antenatal booking visits are performed by midwives, mostly in general practice settings.

During the 1990s antenatal screening for HIV/HBV in Cornwall was confined to injecting drug users. In 1999, one case of vertically transmitted HIV was detected in a non-drug user. Previous research has revealed a low uptake of routine antenatal HIV testing in a variety of urban settings; 3.4% to 51.2% in a series of six inner London maternity units⁵ and up to 35% in an Edinburgh hospital antenatal clinic.⁶

The Department of Health (DoH) issued directives in July 1998⁷ and August 1999⁸ that all pregnant women should be offered HBV and HIV testing as an integral part of their antenatal care, by 1 April 2000 and 31 December 2000, respectively.

METHODS

A working group, with representation from genitourinary medicine, the TPHL, midwifery, obstetrics, paediatric, public health, infection control (Royal Cornwall Hospital), and the health authority (HA) was convened. The group decided to commence routine antenatal HBV/HIV screening together on 1 April 2000 in Cornwall. It was agreed that positive syphilis, HIV, and HBV results would be discussed with the patient by her obstetric consultant, who would be supported by a counsellor from the genitourinary medicine department in the case of a positive HIV result.

The department of genitourinary medicine and the infection control team ran training courses for Cornish midwives, who were pivotal to the success of any antenatal screening programme. It was clear that almost universal testing was essential to detect cases in this low incidence population.

A series of half day seminars was held in early 2000. Ninety three (98%) of 95 community midwives, and 57 (44%) of 129 hospital midwives attended. The seminars commenced with group work to identify any midwife concerns surrounding

routine antenatal HIV/HBV testing, short presentations on the benefits for both mother and baby of this screening followed. Thereafter, in practical sessions, midwives were advised to provide each pregnant woman with a locally prepared HA leaflet on all antenatal blood testing, before the booking visit. A structured discussion protocol to “talk through” the blood tests was demonstrated and issues such as implications for life insurance and confidentiality were discussed. A protocol for requesting and processing of results was presented for discussion with the midwives. Finally, any concerns raised initially but not already dealt with in the seminar were addressed. Each midwife completed a feedback form at the end of the session.

Protocols were modified in the light of these sessions and routine antenatal screening for HIV/HBV was introduced on 1 April 2000. In December 2000, the 95 community midwives were surveyed by questionnaire to see how the programme was progressing.

RESULTS

Uptake of antenatal screening for HIV/HBV

In the first year, 3861 women were booked to deliver in Cornwall; of these 3536 (92%) accepted HIV testing and 3599 (93%) HBV testing respectively. However, the range of uptake of both HIV and HBV tests varied between 44% and 100% between general practices. Twenty six (36%) of 72 and 19 practices (26%) tested less than 90% of women for HIV and HBV respectively. Screening identified one case of HIV and five cases of HBV infection. In each case it was possible to offer an intervention to reduce the risk of mother to child transmission.

Questionnaire survey of community midwives

The response rate was 72% (68/95).

Most midwives did between six and 10 antenatal booking visits per month. Only half of the respondents ensured that each pregnant woman received the HA leaflet before booking. All respondents used the leaflet to discuss testing. Thirty three (92%) of 36 midwives who obtained feedback from women reported that the leaflet was well understood. Sixty two (91%) respondents used the structured discussion approach of the issues involved in HIV/HBV testing “always” or “mostly.” Only one midwife reported referring any patients for in-depth counselling before testing for HIV/HBV.

Forty three (63%) midwives reported that up to five women in their cohort had requested extra time to think about the tests. The respondents reported that pregnant woman agreed to HIV and HBV testing “always” (10/68 (15%) respondents) or “mostly” (58/68 (85%) respondents). The midwives’ impressions of the pattern of test refusal and the most common reasons given are shown in table 1. HIV testing alone was more often refused than any other test. In the midwives’ opinion, the most common reason for refusal of HIV/HBV testing among pregnant woman was “no risk perceived” (36, 53% of replies).

Table 1 The midwives' perception of test refusal

	No (%)
Pattern of test refusal:	
HIV alone	30 (44)
HBV alone	0
HIV and HBV	18 (26)
Syphilis alone	0
All tests	6 (9)
No refusals	10 (15)
Other replies	4
Total	68
Reason for refusal of HIV or hepatitis B tests:	
Fear of results	10 (15)
Confidentiality concerns	0
Insurance concerns	1 (1)
"Not at risk"	36 (53)
Other	1 (1)
No refusals	10 (15)
More than one reason	10 (15)
Total	68

Many midwives commented that the scheme was working well and some were surprised at how readily HIV and HBV testing had been accepted by the pregnant women in their care. However, it was also noted that extra time had to be devoted to the discussion about HIV and HBV screening during the booking visit, usually between 5 and 10 minutes per patient.

DISCUSSION

Antenatal screening for HIV/HBV for women booked to deliver in Cornwall reached the DoH target of a 90% uptake of HIV testing by 31 December 2002 early (by April 2001, 21 months before the national target). Interestingly, the PHLS Communicable Disease Surveillance Centre⁹ has reported that although antenatal HIV screening rates in inner London had improved in the first half of 2000 the same could not be said of areas outside London. The initial success of the Cornish screening programme may be attributed to the commitment of the community midwives, their sole involvement in antenatal booking, and the initial training seminars. The working group met again in May 2001 to review the first year of screening. The general practices where screening rates fell below the county average were discussed and the head of community midwifery agreed to conduct sensitive face to face interviews with the midwives concerned. The results of the midwife survey were reviewed. Concerns were raised both over written information failing to reach many pregnant women before booking and the large proportion of pregnant women requesting additional time to consider HIV/HBV testing. As a result of the review, all general practices and community midwives have received a written report on the initial success of the screening programme and were urged to improve on areas such as providing women with written information before testing.

The working group also proposed ongoing training sessions for all Cornish midwives on HIV/HBV in pregnancy and individual training for any new community midwives to ensure a continued high uptake of HIV/HBV testing. This model of collaborative multidisciplinary working may be of use to others working in areas of low population density.

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MEMBERS OF THE WORKING GROUP

Maggie Barlow (public health scientist), Maria Benallick (control of infection nurse), Sue Corcoran (head of women's services), Paul Munyard (consultant paediatrician) Lynda Quee (health promotion), Edna Richards (head of midwifery, Cornwall Healthcare Trust), Roise Walsh (nurse facilitator, Cornwall and Isles of Scilly Health Authority), Dawn Windsor (substance abuse midwife, RCH).

CONTRIBUTORS

FEAK arranged midwife training seminars, devised and analysed questionnaire for community midwives, principal author, member of working group; JN participated in training seminars, contributed to text of manuscript, member of working group; TP coordinated dissemination of questionnaires to midwives, contributed to design of questionnaire and text of manuscript, member of working group; LH participated in training seminars, contributed to text of manuscript, member of working group; RJ contributed to text of manuscript, member of working group, coordinated obstetricians' role; BG, chairman of working group, contributed to text of manuscript; RB supervised testing of serology samples, contributed to text of manuscript, member of working group.

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