

of stress management (W D Johnson, personal communication).¹²

The costs of starting counselling schemes have been addressed elsewhere,³ but a final constituent is evaluating how they work and their impact. If the general outcome is as good as the reaction reported here by the few doctors who already have such experience, or from industry,¹¹ that will be an important change in postgraduate medical training.

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HIV testing in patients with end stage renal disease

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Abstract

One hundred and twenty eight British and Irish nephrologists were questioned about their policy for HIV testing of patients with end stage renal failure being considered for renal replacement therapy. A total of 101 (79%) replied. In the case of candidates for dialysis roughly one third of respondents tested only people they considered at risk of infection with HIV and nearly one fifth considered testing unnecessary. In the case of candidates for transplantation routine HIV testing was carried out by 68 of 100 nephrologists; 22 tested only patients "at risk" and 10 did not test. A positive HIV test result was considered by most but not all respondents (63/86) to exclude patients from transplantation. Twenty four of 88 nephrologists considered that HIV positivity should exclude patients from haemodialysis, but only seven of 87 would exclude such patients from peritoneal dialysis. Similar attitudes pertained for patients with end stage renal failure who refused HIV testing. Testing with the patient's knowledge and consent was the policy of two thirds of nephrologists, but a patient's signature was obtained by only 24 of 88.

There should be a consensus on practice for HIV testing of patients with end stage renal failure.

Introduction

Neither the clinical usefulness nor the ethics of HIV antibody testing in hospital practice when it is not part of the admitting clinical question have been fully resolved.¹ Furthermore, consent for testing has become a major ethical and legal issue concerning both the BMA and the General Medical Council.^{2,5} The principle of testing only with the patient's consent has been well established, based on the potentially grave

consequences of a positive result and the equivocal benefits of available treatment.⁶ Even offering the test with consent requires careful counselling and always requires justification.⁷

A setting in which conventional strategies for testing have been questioned is that of patients with end stage renal failure.⁸⁻¹¹ In haemodialysis units treatment of HIV positive patients may require precautions similar to those evolved for hepatitis B carriers. After renal transplantation in an HIV positive patient the immunosuppressive treatment needed to prevent rejection would be likely to worsen the immunodeficiency state and accelerate the disease process.¹² And in all forms of renal replacement therapy demand exceeds supply, so that a degree of rationing has been the rule.^{13,14}

We report a survey carried out to determine the attitudes of British and Irish nephrologists to HIV testing of patients with end stage renal failure and to see how these attitudes influenced the strategy for treatment.

Subjects and methods

A closed, self administered questionnaire was sent to all consultant nephrologists in the United Kingdom and Republic of Ireland identified from the European dialysis and transplantation lists and the United Kingdom Transplantation Society annual report. The questionnaire asked which patients are offered or given the HIV test, whether this is with the patient's knowledge and consent, and what effect a positive test result or refusing the test would have on the selection of the patient for renal replacement. Patients were subdivided into candidates for peritoneal dialysis, haemodialysis, and renal transplantation. Nephrologists were classified according to whether the district they worked in had a high, medium, or low reported incidence of AIDS, defined as more than 50 cases, 10-49 cases, or fewer than 10 cases of AIDS reported to the Public Health Laboratory Service Communicable Disease Surveillance Centre by February 1989.

Results

One hundred and twenty eight nephrologists in 66 units were contacted, of whom 101 (79%) in 60 units replied (table I). The response rate among nephrologists was higher in districts beginning to encounter AIDS than in districts with a high reported incidence of AIDS and districts in which reported cases were still

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TABLE 1—Response rates among units (at least one respondent) and nephrologists according to numbers of cases of AIDS reported in their districts*

	Units		Nephrologists	
	Total	Response	Total	Response
Districts with:				
High reported incidence of AIDS (≥50 cases)	10	9	24	16
Medium reported incidence of AIDS (10-49 cases)	22	21	43	37
Low reported incidence of AIDS (<10 cases)	34	30	61	46
Unknown†			—	2
Total	66	60	128	101

*Cumulative reports to PHLS Communicable Disease Surveillance Centre by February 1989.

†Respondents not identifiable.

rare. In terms of units, however, only one district with a high reported incidence of AIDS was unrepresented.

RATES OF TESTING

The HIV test was routinely offered to candidates for peritoneal dialysis by 48 of 99 respondents, to candidates for haemodialysis by 51 of 99, and to candidates for transplantation by 68 of 100 (table II). Whatever the treatment strategy the proportion of nephrologists routinely offering the test to patients increased with the reported incidence of AIDS in their area.

The proportions of respondents whose policy was to offer the HIV test only to people they considered at risk were 33 out of 99 in the case of candidates for peritoneal dialysis, 30 out of 99 in the case of candidates for haemodialysis, and 22 out of 100 in the case of candidates for transplantation (in whom the test was more frequently routine). The proportions did not vary substantially between areas with high and low reported incidences of AIDS.

Not offering the test at all as a routine was more common in areas with a low or medium reported incidence of AIDS and more frequent in the case of candidates for haemodialysis and peritoneal dialysis than in the case of candidates for transplantation. Respondents in areas with a high reported incidence of AIDS all tested candidates for transplantation.

EXCLUSIONS FROM TREATMENT

A positive HIV test result was considered by seven of 87 respondents to exclude a patient from peritoneal dialysis by 24 of 88 respondents to exclude a patient

from haemodialysis, and by 63 of 86 respondents to exclude a patient from transplantation (table III). The pattern was fairly consistent among the three types of district (that is, as classified by the reported incidence of AIDS), with the exception that districts with a high reported incidence of AIDS were more likely to offer peritoneal dialysis and haemodialysis and less likely to offer transplantation to patients positive for HIV.

Similar but on the whole higher rates of exclusion from dialysis were reported for patients who refused the test than for those who were HIV positive. In areas with a low reported incidence of AIDS, however, patients who refused the test had a higher rate of acceptance for transplantation than patients who tested HIV positive.

KNOWLEDGE AND CONSENT

Testing without the patient's knowledge ("not usually" or "never" with the patient's knowledge) was reported by four of 92 respondents, and testing without seeking the patient's consent was reported by five of 88 respondents (table IV). Two thirds of respondents reported always seeking the patient's consent.

The way in which consent was recorded was very variable. Twenty four of 88 respondents sought the patient's written consent, 18 recorded consent in the notes, 27 accepted verbal consent, and 19 relied on implied consent. Implied and verbal consent were used by only six of 15 respondents in areas with a high reported incidence of AIDS whereas in areas with medium and low reported incidences they sufficed for 19 of 34 and 20 of 37 respondents respectively.

Discussion

This survey of British and Irish nephrologists shows a continued upward trend in the number of nephrologists carrying out HIV testing of candidates for renal replacement therapy. The European Dialysis and Transplant Association found that the proportion of centres testing at least some patients had increased from 28% to 70% (not distinguishing types of treatment) from 1985 to 1987.^{15 16} Our study, completed early in 1989, indicates that 90% of nephrologists in centres offering dialysis and transplantation now carry out testing of at least some patients.

There is also a considerable variation in HIV testing practice of candidates for renal replacement therapy. Testing is commoner in areas with some experience of AIDS reporting, but even in these areas a quarter of respondents would offer the test only to patients considered at risk. This reliance on the physician's own impression about the presence or absence of risk behaviour may increasingly be regarded as inappropriate as numbers increase.

The proportion of respondents routinely offering HIV testing to candidates for transplantation was higher than the proportion offering the test to candidates for dialysis. Even so, one in 10 thought it unnecessary to carry out testing in candidates for transplantation. Given the immunosuppressive treatment required after transplantation, this 10% may reflect units in which HIV is not perceived as an issue rather than a liberal approach to contraindications to transplantation.

There was considerable variation in the proportion of respondents who considered that a positive HIV test result should exclude a patient from each type of treatment strategy. The consensus among 80 of 87 respondents was that they would not refuse peritoneal dialysis, whereas 24 of 88 would refuse haemodialysis and 63 of 86 would refuse transplantation. Though the International Transplantation Registry had in 1988 documented over 20 HIV positive people given

TABLE II—Rates of routinely offering HIV testing to candidates for peritoneal dialysis, haemodialysis, and transplantation. Figures are numbers of nephrologists who answered question*

	Districts with high incidence of AIDS	Districts with medium incidence of AIDS	Districts with low incidence of AIDS	Total*
Peritoneal dialysis:				
Yes	9	19	18	48
Only patients considered at risk	6	12	15	33
No	1	4	13	18
Total respondents	16	35	46	99
Haemodialysis:				
Yes	11	20	18	51
Only patient's considered at risk	4	11	15	30
No	1	4	13	18
Total respondents	16	35	46	99
Transplantations:				
Yes	12	26	28	68
Only patients considered at risk	4	7	11	22
No	0	3	7	10
Total respondents	16	36	45	100

*Question asked: "Do you routinely offer the following categories of patients the HIV test?"

†Total includes two "unknowns."

TABLE III—Proportions of nephrologists who would exclude patients from peritoneal dialysis, haemodialysis, or transplantation if they had a positive HIV test result or refused the test

	Districts with high incidence of AIDS	Districts with medium incidence of AIDS	Districts with low incidence of AIDS	Total*	
Test positives:					
Peritoneal dialysis	Would exclude	0	4	2	7
	Total	14	34	37	87
Haemodialysis	Would exclude	3	10	10	24
	Total	14	34	38	88
Transplantation	Would exclude	10	22	29	63
	Total	13	32	39	86
Test refusals:					
Peritoneal dialysis	Would exclude	4	10	2	17
	Total	14	34	33	83
Haemodialysis	Would exclude	6	14	8	29
	Total	14	34	33	83
Transplantation	Would exclude	10	22	18	52
	Total	14	33	32	81

*Total includes two "unknowns."

TABLE IV—Replies to questions about knowledge and consent of patients tested for HIV. Figures are numbers of nephrologists

	Districts with high incidence of AIDS	Districts with medium incidence of AIDS	Districts with low incidence of AIDS	Total*
<i>"Is testing done with the patient's knowledge?"</i>				
Yes, always	11	22	26	61
Yes, usually	4	11	12	27
Not usually	1	1	1	3
Never	0	0	1	1
Total	16	34	40	92
<i>"Is testing done with the patient's consent?"</i>				
Yes, always	10	22	25	59
Yes, usually	4	11	9	24
Not usually	0	2	2	4
Never	0	0	1	1
Total	14	35	37	88
<i>"How is consent recorded?"</i>				
Signed by patient	6	4	13	24
In the notes	3	11	4	18
Verbal	5	13	9	27
Implied	1	6	11	19
Total	15	34	37	88

*Total includes two "unknowns."

transplants,¹⁷ the 27% of respondents (23/86) who would not exclude a patient from transplantation was surprising, given the problem with immunosuppression. This, however, may reflect caution about the assumption that organ recipients who are HIV positive will have a poor outcome. Dummer *et al* found that HIV infection was not exacerbated by immunosuppressive treatment.¹⁸ M H Cooper *et al*, who studied the survival of patients given liver, heart, or kidney transplants, found a two year survival of 52% (13/25 cases) among HIV positive liver transplant recipients as compared with 72% among HIV negative controls (abstract presented at British Transplantation Society meeting, Royal Society of Medicine, London, autumn 1989). Of their 13 survivors, 12 had normally functioning grafts. Both Cooper *et al* and Dummer *et al* therefore considered that HIV was not an absolute contraindication to transplantation. In the case of renal failure, however, dialysis offers a lifesaving alternative to transplantation.

The minority of respondents in our study who would refuse haemodialysis contrasts with the majority in Miami reported by Bourgoigne and Inkerian, who also noted an overall lack of uniformity of practice.¹⁹ The refusers may be concerned at the potential outcome for HIV positive patients. Evidence suggests that the outcome may be poor in patients with AIDS or HIV nephropathy²⁰ but not in patients who are asymptomatic HIV carriers.²¹ Refusers may be concerned that a parallel problem to that associated with hepatitis B virus in haemodialysis units may occur in HIV. So far, however, the evidence is against nosocomial spread of HIV in haemodialysis units.²²⁻²⁴ The consequences of nosocomial spread would be catastrophic. We know of no analogous concern in the case of peritoneal dialysis. Peritoneal dialysis has been suggested as the preferred treatment for HIV positive patients with renal failure, requiring only careful fluid disposal procedures.²⁵

Rules for getting the patient's consent to HIV testing have been established both by the BMA²³ and by the GMC.^{4,5} Though two thirds of the respondents in our series always sought consent and a further 27% (24/88) usually did so, the fact that these 27% sometimes did not and 4% (4/88) did not seek consent is notable.

Furthermore, of the respondents who sought consent, only 24 (27%) asked for it in writing. Verbal or implied consent was accepted by more than half.

Nephrology is probably in the same position over patient consent to testing as many hospital specialties not principally dealing with HIV and AIDS. The BMA's Foundation for AIDS recognises instances where a doctor thinks it is against the patient's interests to follow guidelines on consent but states that he or she "must be fully prepared to justify his action in the courts or to the GMC or both."²⁶

We conclude that awareness of HIV is probably still rising in many sectors of medical practice. Renal replacement therapy, where different modes of treatment exist and where there has been an acknowledged rationing of potentially lifesaving strategies,¹³ presents a particularly apposite case study. This survey has shown a wide variation in current attitudes to HIV testing among nephrologists in Great Britain and Ireland. Further discussion seems necessary and desirable to achieve consensus on this issue.

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