Choosing explicit criteria for the prioritisation of elective NHS waiting lists: Survey evidence of clinical and lay preferences from Wales

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Introduction

The need for priority setting in the NHS is becoming increasingly recognised and explicit (New, 1996). Waiting list and waiting time reduction initiatives through the 1990s have proved successful only as short-term measures (Hamblin, 1998). Despite Labour's manifesto pledge to reduce waiting lists, an additional 100,000 patients joined elective NHS waiting lists in the first seven months of their office. Successful policies to ensure that waiting lists act as an efficient and equitable rationing mechanism depend on a greater understanding of the preferences and beliefs of those who finance, deliver and receive elective health care within the NHS (Edwards, 1997).

In this paper the preliminary findings of the Weights for Waits Project are reported. This study is an all Wales survey of the views of GPs, consultants, health authority commissioners and the general public on how NHS waiting lists function as a rationing mechanism. The aim of this study is to determine the extent of clinical and lay preferences for the more explicit prioritisation of elective NHS waiting lists in Wales. The study is funded by the Wales Office of Research and Development for Health and Social Care. The Weights for Waits project is due to finish in February 1999.

Background

In the UK, access to elective or non-urgent health care is gained via referral by a GP for an outpatient consultation, at which point, if necessary, a patient is placed on an inpatient waiting list or offered a booked admission date. As such, outpatient and inpatient waiting lists have, since the inception of the NHS in 1948 acted as a non-price rationing mechanism for publicly provided healthcare (Frankel and West, 1993). Some GPs acting on behalf of their individual patients have attempted to influence waiting time through tactics such as faxing referral letters and repeatedly telephoning hospital secretaries in order to try to negotiate earlier admission dates (Wilkinson, Personal Communication).

Currently, health authorities bear statutory responsibility for the number of patients on NHS waiting lists and for meeting national maximum waiting time guarantees (Department of Health, 1995). It has however been individual hospital consultants who have traditionally held responsibility for the management and prioritisation of their personal NHS and private waiting lists. Consultants have always to a greater or lesser extent prioritised their waiting list patients as urgent, soon or routine. Practical constraints such as the need for balanced theatre lists, teaching commitments and pressure from management to meet patients charter maximum waiting time targets, have all contributed influence to the relative priority of individual patients as assigned by

consultants. In general the UK public have proved stoical and accepting of the inevitability of having to wait for NHS treatment (Yates, 1995).

New Zealand and Sweden who have historically shared the UK's problem of persistent growth of waiting lists for public health care are exploring the potential of priority scoring systems for the more transparent and explicit prioritisation of elective waiting lists (Horton and Holmes, 1997), (Lundstrom et al, 1996). In the UK, priority scoring systems are widely used in the allocation of local authority public housing. Similar scoring systems have been proposed for the more explicit prioritisation of elective waiting lists in the NHS (Lack and Armand Smith, 1995). Such priority scoring systems would open up opportunities for the establishment of explicit referral thresholds for GPs and more sophisticated commissioning of elective services based on a gradient of clinically appropriate maximum waiting times (Edwards, 1997).

Consideration of the potential of priority scoring systems for the more efficient and equitable management of elective waiting lists raises the following questions. Firstly, whether those responsible for the finance, delivery and receipt of elective health care would welcome a move to more explicit prioritisation. Secondly, what do clinical and laypersons believe to be the appropriate clinical, social and financial criteria upon which priority for elective health care should be based. Thirdly, what relative weights should be given to the views of GPs, consultants, health authority commissioners, patient representatives and the general public. The Weights for Waits Project, using survey evidence from Wales, attempts to begin to answer these questions and in doing so contributes to the waiting list debate.

Subjects and Methods

Sampling

During the period May 1997 - August 1998, 2279 postal questionnaires were sent out to random samples of GPs (750), consultants (500), health authority commissioners (29) and the general public (1,000) across Wales. These represented 40% of GPs, 40% of consultants, 100% of health authority commissioners as identified by health authority directors of public health and a small but representative sample of the general public.

Lists of fund holding and non-fund holding GPs were obtained with ease from the Welsh Office. No similar list was available for consultants, so the project team telephoned each of the Trusts across Wales in order to compile an accurate list of all consultants currently working in Welsh trusts. Each of the five Health Authorities in Wales were contacted for lists of their staff involved in commissioning. Subjects from each sample group were then selected from these lists using the random number

generator facility in Computer Program for Epidemiological Analysis. After consideration of a range of options, the research team commissioned the Californian Analysis Centres Incorporated (CACI) to provide an electronic sample of 1,000 members of the general public across Wales; the sample was stratified to reflect geographical population density and socio-economic status.

Survey instrument

A literature search revealed no suitable survey instruments to suit the purposes of the project and so new questionnaires had to be drafted. To allow comparison of views, the main body of each of the questionnaires was the same across the four groups and this was originally designed with the help of GPs and consultants in the Liverpool area. Draft versions of each of the questionnaires were extensively piloted across Merseyside.

The questionnaire pack included: a bi-lingual covering letter; postal questionnaire, a stamped addressed or FREEPOST envelope and a brief summary of the Weights for Waits project and its aims.

The 11 page questionnaire consisted of :

- closed and open questions to facilitate the collection of information specific to each of the survey groups. GPs, consultants and health authority commissioners were asked whether or not they supported more explicit prioritisation of NHS waiting lists, whether they would prefer prioritisation to be based on nationally or locally agreed criteria, and whether or not they supported current maximum waiting time guarantees. In an attempt to mirror the above and determine the general public's attitudes towards the explicit prioritisation of NHS waiting lists, the following types of questions were asked: would you accept that your waiting time would depend on the medical and social circumstances of other patients on the list as well as your own circumstances?; would you like to know how your waiting time is determined relative to other patients on the waiting list?; would you be happy for the hospital specialist to give you a score which reflects your medical and social circumstances and which could be used to determine how long you wait relative to other patients?.

- closed questions to determine which of a list of clinical, social and financial factors all groups believe should and should not influence the priority of adult patients on NHS inpatient and daycase waiting lists in any specialty (See table 1). To elicit which factors should and should not be influential, groups of statements were given in order that direction could be gauged where necessary ,for example younger

patients should be treated before older patients, older patients should be treated before younger patients, age should not influence the relative priority of patients, and respondents were asked to tick the statement with which they most agree..

- modified Likert scale to elicit clinical and lay strength of preferences regarding the influence of different clinical, social and financial factors. Respondents were asked to score a range of criteria as irrelevant, slightly influential, fairly influential or very influential and these were used to rank criteria according to the level of agreement within groups

- a free text section to permit respondents to discuss topics of their own choosing

- closed questions to generate personal profiles of respondents

Reminder questionnaires were sent out to non-respondents six weeks after the initial questionnaire was delivered.

Table 1: List of clinical, social and financial criteria

List of clinical, social and financial criteria			
a	Ability to pay	k	Level of disability
b	Age	l	Level of distress
c	Anticipated benefit	m	General health state
d	Clinical Evidence	n	Existence of dependants
e	Compensation pending	o	Loss of usual activities
f	Consultant special interest	p	Level of pain
g	Cost of treatment	q	Attitude of relatives
h	Evidence of cost-effectiveness	r	Self-inflicted illhealth
i	Dependence on others	s	Time already waited
j	Deterioration of disease		

Data were entered into a spreadsheet, most of which was analysed using SPSS for Windows version 6.1.2; all other data were analysed using Microsoft Excel version 5.0. Chi-squared analysis was used to check for differences among the four survey groups; $p<0.05$ is considered to indicate statistical significance.

Results and Analysis

The final sampling frame and response rates for each of the four groups surveyed are presented in table 2.

Table 2: Sampling frame and response rates

Group	Sampling frame	Sample size	Returns	Response rate
GPs	1810	750	390	52%
Consultants	1270	500	318	64%
HA commissioners	29	29	24	83%
General Public	2.18m	1,000	369	37%

Explicit prioritisation of adult elective NHS waiting lists - GPs (87%) and health authority commissioners (92%) were overwhelmingly in favour of a more explicit prioritisation system whereas consultants seemed to be somewhat divided with 57% in favour and 43% against a more explicit system of prioritisation. Overall, a statistically significant difference occurred in the responses across the three groups ($p<0.05$); however, no statistically significant difference was found between GPs and health authority commissioners ($p>0.05$).

Preferred explicit prioritisation system - Of the 321 GPs and 162 consultants who would prefer a more explicit prioritisation system, 58% and 47% respectively would prefer a structured GP referral letter to help consultants prioritise their patients according to explicit, *locally agreed* criteria. Of the 22 health authority commissioners who would also prefer a more explicit prioritisation system, 62% would prefer a structured GP referral letter based not on locally agreed criteria, but on *nationally agreed* criteria. The remaining option for this question was the allocation of admission slots to GPs who would then prioritise their own patients for admission; this was the least preferred option for each of the three groups surveyed. Overall, a statistically significant difference occurred in the responses among the three groups ($p<0.05$).

Determination of waiting time - 44% of GPs and 38% of consultants believe that waiting time should be determined by clinical urgency and then first patient come, first patient served; 40% of health authority commissioners believe that NHS waiting times

should be determined by clinical urgency and nationally agreed, explicit social criteria; 32% of the general public believe that waiting time should be determined by guaranteed waiting times for all under the Patients' Charter. Overall, a statistically significant difference occurred in the responses among the three groups ($p<0.05$).

Same criteria across all specialties versus specialty specific criteria - 50% (185) of GPs, 20% (57) of consultants and 32% (7) of health authority commissioners believe that the same criteria can be used for the purpose of explicitly prioritising adult elective NHS inpatient and daycase waiting lists across different clinical specialties. Overall, a statistically significant difference was found among the three groups; however, no statistically significant differences were found between the GPs and the health authority commissioners, nor between the consultants and the health authority commissioners ($p>0.05$). Of the respondents who disagree with the use of the same criteria across all specialties, 88% (171) GPs, 76% (176) of consultants and 82% (14) of health authority commissioners think that explicit prioritisation should be based on specialty specific criteria; the remainder tend to think that the specific diseases/conditions themselves should determine whether or not general or specialty specific criteria is appropriate. Overall, a statistically significant difference occurred in the responses among the three groups ($p<0.05$); however, no statistically significant differences were found between the GPs and the health authority commissioners, nor between the consultants and the health authority commissioners ($p>0.05$).

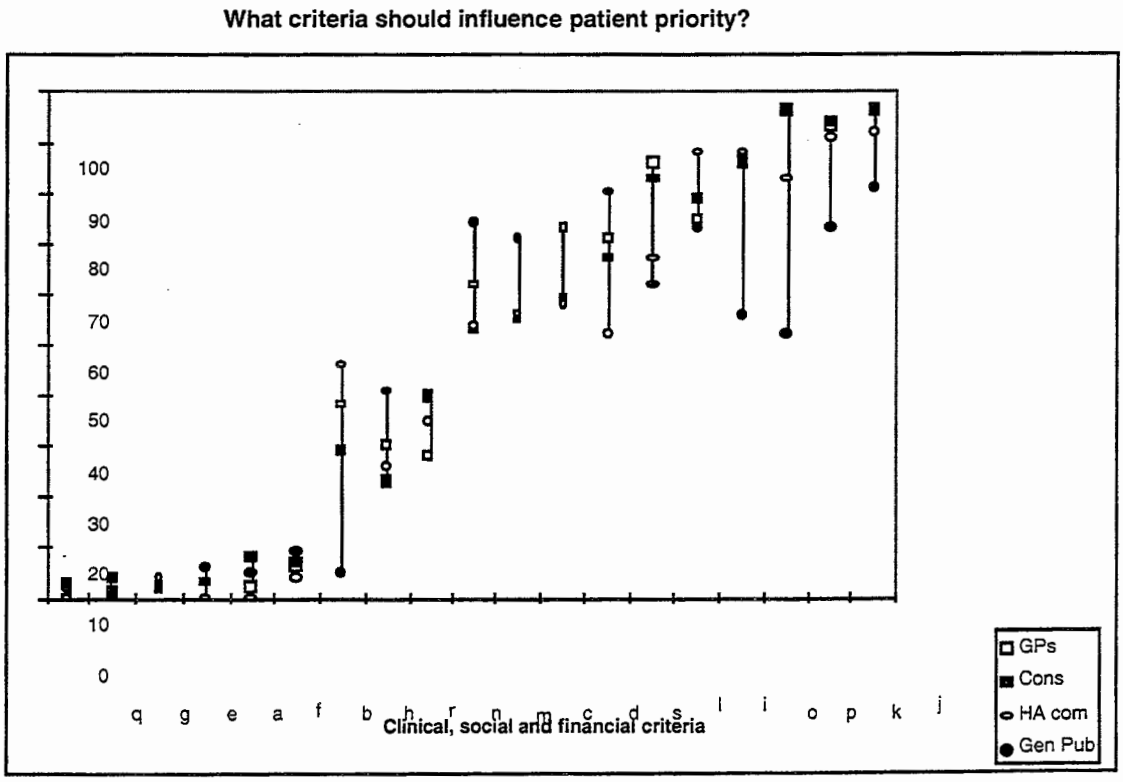
Support for current maximum waiting time guarantees - 56% (207) of GPs, 60% (182) of consultants and 61% (9) of health authority commissioners do not support current maximum waiting times as set out in the Patient's Charter. Overall, no statistically significant differences occurred in the responses among the three groups ($p>0.05$).

Explicit prioritisation and the general public - 83% (355) of the general public surveyed would accept that their waiting time depends on the medical and social circumstances of others; 80% (286) of the general public would like to know how their waiting time is determined relative to other patients on the list; 64% (227) would be happy for the hospital specialist to give them a score which would reflect their medical and social circumstances and which could be used to determine how long they need to wait relative to other patients.

Clinical, social and financial criteria which should/ should not influence the relative priority of patients on adult elective NHS waiting lists -Factors which the majority of all groups believe should influence patient priority are as follows: anticipated benefit; clinical evidence; dependence on others; rate of deterioration of disease; level of

disability; level of distress; general health status; loss of usual activities and pain. Factors which the majority of all groups believe should not influence patient priority are as follows: ability to pay; compensation pending; consultant special interest; cost of treatment; cost-effectiveness evidence; existence of dependents; attitude of relatives and self-inflicted ill health. One area of disagreement between the majority response of the groups is around length of time already waited. GPs, consultants and the general public believe that length of time already waited should influence the length of time a patient waits for treatment whereas health authority commissioners do not. The following graph (graph 1) provides more detailed information on the extent of agreement around the most frequently expressed response for each of the groups.

Graph 1: Clinical, social and financial criteria which should influence patient priority on elective NHS waiting lists



n.b. Vertical bars represent the range of agreement across all groups

List of clinical, social and financial criteria			
a	Ability to pay	k	Level of disability
b	Age	l	Level of distress
c	Anticipated benefit	m	General health state
d	Clinical evidence	n	Existence of dependants
e	Compensation pending	o	Loss of usual activities

f	Consultant special interest	p	Level of pain
g	Cost of treatment	q	Attitude of relatives
h	Evidence of cost-effectiveness	r	Self-inflicted ill health
i	Dependence on others	s	Time already waited
j	Deterioration of disease		

How influential should each factor be? - Of the list of 19 factors presented to the groups, the majority responses for 11 of the factors presented are consistent across the four groups. The majority of each of the survey groups believe that ability to pay, age, compensation pending, consultant special interest, cost of treatment, attitude of relatives and self-inflicted ill health should be *irrelevant* to the length of time patients wait. The majority of each of the survey groups believe that level of pain, rate of deterioration of disease, level of distress and level of disability should play the *most influential* role in determining waiting times for elective NHS treatments. This means there are only 8 factors for which there are a range of views as to their relative influence, and these factors are as follows: anticipated benefit, evidence of clinical effectiveness, evidence of cost effectiveness, dependence on others, existence of dependents, general health status, loss of usual activities and length of time already waited as shown in table 3.

Table 3: Disagreement between groups over levels of influence

Criterion	GPs	Cons	HA com	Gen Pub
Anticipated benefit	very	fairly	very	fairly
Evidence of clinical effectiveness	fairly	very	very	n/a
Evidence of cost effectiveness	slightly	irrelevant	irrelevant	irrelevant
Dependence on others	fairly	fairly	fairly/slightly	fairly
Existence of dependants	slightly	slightly	slightly	fairly
General health status	fairly	fairly	slightly	very
Loss of usual activities	fairly	fairly	slightly/very	fairly
Length of time already waited	fairly	fairly	slightly	very

Table 4 below shows the top ten criteria alongside the mean score for each of the four groups in rank order of influence as stated in the preferences of each of the four groups. Although this table does not reveal the direction of influence associated with each factor, it does present information regarding the degree of influence each factor should carry. This table shows that the top ten factors of influence are very similar across each

of the four groups; eight factors appear in the top ten list of each group. The only area of disagreement is around length of time already waited as this factor does not appear in the health authority commissioners top ten list but appears in the lists of the other three groups. Evidence of clinical effectiveness does not appear in the general public's top ten list as the general public were not asked about this factor.

Table 4: Mean scores in rank order of influence for each of the four groups

GPs	Mean score	Cons	Mean score	HA Comm	Mean score	General public	Mean score
Pain	2.6	Pain	2.67	Deterioration	2.63	Deterioration	2.61
Deterioration	2.58	Deterioration	2.51	Pain	2.52	General health state	2.35
Distress	2.38	Disability	2.38	Anticipated benefit	2.42	Pain	2.17
Disability	2.34	Distress	2.31	Disability	2.39	Distress	2.15
Anticipated benefit	2.22	Anticipated benefit	2.02	Clinical evidence	2.27	Disability	2.13
Clinical evidence	1.97	Loss of usual activities	1.81	Distress	2.17	Time waited	2.09
General health state	1.88	Dependence on others	1.72	Loss of usual activities	1.83	Dependence on others	1.79
Loss of usual activities	1.86	General health state	1.67	Dependence on others	1.63	Anticipated benefit	1.72
Dependence on others	1.75	Clinical evidence	1.65	General health	1.45	Existence of dependants	1.66
Time waited	1.49	Time waited	1.37	Cost effectiveness	1.38	Loss of usual activities	1.61

Whose views should count? – When asked to apportion 100 hypothetical votes among GPs, consultants, health authority commissioners, general public and patient representative groups all four groups agree that the responsibility for generating explicit criteria should be primarily shared between GPs and consultants. GPs and health authority commissioners believe that GPs and consultants should have more or less equal influence whereas consultants and the general public believe that consultants should have slightly more influence than GPs over the relative time that patients wait for treatment. GPs, consultants and the general public believe that health authority commissioners, general public and patient representative groups should receive about 10% of the votes. Health authority commissioners apportion themselves 21% of the votes whereas the other three groups only assign 9% of the votes to health authority commissioners (see table 5 below).

Table 5: Share of 100 votes assigned by each group to the various clinical and lay groups for the purpose of setting explicit criteria for the management of NHS waiting lists.

Weights for According to	GPs	Consultants	HA comm	General Public	Patient representative groups
GPs n=390	36%	34%	9%	11%	9%
Consultants n=317	29%	47%	9%	8%	7%
HA commissioners n=24	29%	28%	21%	11%	10%
General public n=369	32%	40%	9%	9%	10%

Discussion

Methodological issues

The project team feel that the response rates achieved in the Weights for Waits Project are good. A 52% response rate from GPs is higher than anticipated given recent evidence to suggest that general practitioners response rates are dropping (McAvoy et al, 1997). A response rate of 67% from consultants shows their obvious concern over the conflicting managerial and clinical responsibilities which they now face with respect to the management of NHS elective waiting lists. Replies from 24 out of the 29 health

authority commissioners surveyed demonstrates the increasing willingness of commissioners to address issues of priority setting. Given the abstract nature and complexities of the concepts addressed in the study, the research team were not disappointed with a response rate of 37% from the general public. Overall, a considerable volume of qualitative evidence was proffered by respondents which complimented the quantitative responses requested in the questionnaire.

No patients were surveyed in this study as the project team were concerned that patients might believe their responses would influence their own waiting time for NHS treatments.

Interpretation of findings

Explicit prioritisation of adult elective NHS waiting lists – The greatest support for a more explicit basis for the management of NHS elective waiting lists stems from GPs and health authority commissioners who may be challenging the way in which consultants have traditionally controlled their own waiting lists.This supposition may be reinforced by the lesser degree of support demonstrated by consultants for a move from implicit to explicit priority setting.

Preferred explicit prioritisation system – By favouring a prioritisation system based on nationally agreed explicit criteria, health authority commissioners are demonstrating their desire for national guidance; whereas GPs and consultants appear to wish to preserve local ownership over prioritisation issues.

Determination of waiting time – It is interesting to note that the views of health authority commissioners differ from those of GPs and consultants in their wish for national guidance on the management and prioritisation of elective health care services.

Same criteria across all specialties versus specialty specific criteria – Two distinct options exist in the establishment of priority scoring systems for the management of elective waiting lists. Firstly, there exists the option of condition or specialty specific criteria, the method of choice in New Zealand (Horton and Holmes, 1996). Secondly, generic or non-disease specific criteria could be used, such criteria would be applicable to patients on lists in any clinical specialty, this approach is being developed in the UK (Lack and Armand Smith, 1995), (Edwards, 1994). In general, consultants and health authority commissioners seem more wary of generic criteria than do GPs; this may be explained by the fact that consultants and health authority commissioners are more specialty oriented than GPs who routinely treat a wide spectrum of health problems.

Explicit prioritisation and the general public – There does seem to be considerable acceptance by the general public that their waiting time is dependent on the medical and social circumstances of others. In general they support a more explicit basis for the derivation of waiting times and would like more information regarding their relative priority on waiting lists. The UK general public are familiar with priority scoring systems being used in the allocation of scarce public housing and the results of the Weights for Waits Project suggest that the general public might be accepting of such a scheme being introduced in the NHS in Wales.

Clinical, social and financial criteria which should/should not influence the relative priority of patients on adult elective NHS waiting lists – In general, faced with a list of clinical, social and financial criteria, each of the survey groups consistently selects the same criteria which they feel should or should not influence the relative waiting time of patient, except for time already waited. This means that, were criteria to be generated for a priority scoring system, the views of those involved in the finance, delivery and receipt of health care would not appear to be widely divergent and so a possible consensus could be reached.

How influential should each factor be? It also appears possible to rank the clinical, social and financial factors with a considerable level of consistency across each of the four groups. As anticipated, clinical factors such as pain, rate of deterioration of disease and levels of distress and disability are believed to be important across the board. It is interesting to note that some of the factors like age, self-inflicted ill health and cost-effectiveness which have gained media attention as circumstantial barriers to the treatment of individual patients, are felt to be irrelevant and inappropriate as a basis for determining waiting times.

Whose views should count? Current restructuring of the NHS and creation of Primary Care Groups in England and Local Health Groups in Wales anticipate GPs playing a more significant role in the commissioning of health care (Welsh Office, 1998), (Secretary of State for Wales, 1998). The study results demonstrate that all groups support a greater role for GPs; however, consultants express a degree of wariness in relinquishing their traditional control of waiting lists. There is also a commitment in these Green and White Papers to consult and involve the public and patient representative groups in the organisation and priority setting of health care services; study results reflect a consistent wish to involve these groups in decision making.

Policy implications

Under the Conservative Government administration of the 1980s and 1990s, waiting list policy has been focused on establishing and maintaining maximum waiting time guarantees and reducing the number of patients waiting unacceptably long periods for treatment. Labour's manifesto pledge to remove 100,000 patients from NHS waiting lists has changed policy direction, focusing on the total number of patients waiting for elective NHS treatments. Neither of these policy goals directly address the more fundamental issue of ensuring that waiting lists function as an efficient and equitable alternative to the price mechanism in the allocation of public health care in the UK.

The concept of explicit priority scoring systems for the better management of NHS waiting lists was first proposed by two health economists (Culyer and Cullis, 1976); however, the potential advantages of explicit prioritisation are yet to be demonstrated and implementation would raise a wide range of issues. Issues such as the necessity to define and operationalise the concept of need, whose views should count in the derivation of priority setting criteria, the relative weights to be assigned to such criteria, the delicate balance between avoidance of gaming on the part of any party and the need for flexibility or clinical discretion to protect the special needs of individual cases.

The Weights for Waits Project has attempted to begin to address some of these questions in order to promote the more efficient and equitable rationing of elective health care by waiting list in the NHS.

References

Culyer A.J. and Cullis J.G. (1976). Hospital waiting lists and the supply and demand of inpatient care, Institute of Social and Economic Research , York..

Department of Health. The Patients' Charter. London: Department of Health, 1991.

Edwards, R. T. An Economic Perspective of the Salisbury Waiting List Points Scheme. In: Malek, N. (ed), Health Care Chichester: John Wiley & Sons Limited, 1994.

Edwards, R.T. NHS Waiting Lists: Towards the Elusive Solution, Office of Health Economics, London. 1997

Frankel, S. & West, R. Rationing and Rationality in the National Health Service: The Persistence of Waiting Lists. In, Economic Issues in Health Care. London: Macmillan, 1993.

Hamblin, R. The Wrong Target, Health Service Journal, 2 April 1998, 28-31

Horton, D. & Holmes, A. The New Zealand Priority Criteria Project (part one) 1997: Overview BMJ V1.314:131-134

Lack, A. & Armand Smith, N.G. Setting Priorities for Surgical Waiting Lists. BMJ 1995; 311:811.

Lundstrom, M. Stenevi,U. Thorburn W. Assessment of Waiting Time and Priority Setting by Means of a National Register. International Journal of Technology Assessment in Health Care, 1996, 12:1., 136-140, Cambridge

New, B. The Rationing Agenda in the NHS, BMJ, 1996, 312:1593-1601

Secretary of State for Wales, NHS Wales. Putting Patients first, Cardiff. The Stationery Office, CM3841, January 1998.

Welsh Office, Better Health, Better Wales, Cardiff: The Stationery Office, May 1998.

Yates, J. Private Eye, Heart and Hip, London, Churchill Livingstone, 1995.