about one quarter of ambulance crews in London are paramedics, but analysis of workload suggests that less than one tenth of calls require paramedical skills. The London Ambulance Service already trains more paramedics than any other service in Britain and loses some of them to provincial services after training.

Only one third of hospitals served by the London Ambulance Service provide clinical training placements for paramedics, and even to meet current needs this will require a substantial increase. To achieve the Department of Health's target will require a substantial increase in training at considerable cost. Is this likely to be economic? How will most paramedics maintain their skills when only a small proportion of calls require them? Will the morale of staff who are not paramedics, seen in other services with the development of an elite, occur in London? The London Ambulance Service has avoided many of these problems by ensuring that some extended skills, such as provision of defibrillation and nebuliser treatment, are taught to every qualified ambulance person. Evidence also exists that ambulance staff who are not paramedics can safely identify and treat hypoglycaemia with glucagon. If implementing a dispatch system responsive to medical priority shows that resources are being effectively targeted according to clinical need the aim of having a paramedic in every front line vehicle would need to be reconsidered.

Historically, informal links with individual clinicians and specialty groups have facilitated many changes in ambulance training, operations, and equipment. As the range and complexity of prehospital care increases, however, the mechanisms for medical input to the London Ambulance Service and the audit of outcomes will need review. Currently, there is official medical input to extended training in the form of the paramedic steering committee as required by the NHS Training Directorate, but in other matters of policy the only other medical forum, the medical advisory group, has no operational responsibilities. Recent initiatives that have required close liaison are the development of joint training for ambulance and medical incident officers in the management of major incidents, proposals for increasing direct communication between ambulances and accident and emergency departments, and the development of alternatives to obstetric flying squads. The input of the medical advisory group to long term planning and development would be valuable.

Unified medical input and systematic audit are particularly necessary in view of the differing medical opinions and prejudices regarding the philosophies of "scoop and run" versus "treat in the street." How best to coordinate medical advice for the London Ambulance Service should be a matter for debate. In particular, the potential benefit to London of the consultant medical director model—popular in the United States and currently being pioneered in the Scottish Ambulance Service—will need careful assessment.

Public interest in the London Ambulance Service is obvious, but public confidence, shaken by the 1989 ambulance strike and by the problems of last year, needs to be restored. Although response times have the highest profile—being easily measured—the quality of clinical care delivered is also crucially important, and its absence from the topics included in the service's annual corporate review is regrettable.

The London Ambulance Service's new management must make an unequivocal commitment to both basic and extended training and the establishment of systematic clinical audit to build on the progress made to date. As a consumer, the public has a part to play in making the service more efficient, and a health education campaign supported by the government is long overdue. Management commitment is likely to produce better response times over the next three years, but this will be a hollow achievement without advances in clinical care.

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Measuring patients’ views: the optimum outcome measure

SF 36: a valid, reliable assessment of health from the patient’s point of view

The debate about whether and how to measure medical outcomes is heating up as those who fund medical care put providers under greater pressure to control their costs. With little known about which features of medical services improve outcomes, policies that reduce costs will be deemed successful unless data on outcomes show otherwise. Hence the need to study outcomes.

The ideal outcome of treatment is a return to the normal or usual quality of life for a given age and medical condition. Since the first health interview surveys of sickness and disability, the hunt has been on for a reliable measure of how people perceive their health. Great strides have recently been made in standardising self reported measures of functioning and wellbeing and using them to monitor outcomes. With the standardised self report survey emerging as the best method of measuring outcomes from the patient’s point of view, now is a good time to take stock of these advances.

To date the evaluation of such surveys has mainly been controlled by the researchers who developed them, but health care policy makers, clinical investigators, and providers should now get involved. The contributions of Jenkinson and colleagues (p 1437) and Garratt and colleagues (p 1440) in this week’s journal and an earlier contribution by Brazier et al provide useful information about the performance of the
American short form (SF 36) health survey questionnaire adapted for British use. These papers show the ease of administering this self report survey and suggest that other English speaking countries such as Australia and Canada may be able to use it with minimal changes.

These papers also show the value of two different strategies for interpreting health status—approaches based on norms and criteria. Norms allow individual scores and group averages to be interpreted according to where they lie in the distribution of scores for a general population. They are particularly useful when no single criterion or "gold standard" for evaluating health exists. Because men and women of different ages report different levels of health, separate norms can be calculated for these groups and for different occupational groups. These norms will greatly help to estimate the burden of specific conditions. The inclusion of criterion variables such as medical conditions, severity of illness, and use of health care services is useful in interpreting the surveys.

Garratt and colleagues show that SF 36 scores tend to correlate with doctors' assessment of the severity of illness, which is encouraging. But this holds true only on average: functioning and wellbeing vary greatly even among patients with the same condition. Some of this variation may be due to treatment and to factors that change over time. Follow up studies planned by Garratt and colleagues and more widespread use of self report measures in clinical trials should improve our understanding of why outcomes vary and how to improve them.

After extensive evaluations of the content of the SF 36, it is encouraging that these investigations conclude that only minor changes in six items were required to adapt the SF 36 for British use. For example, "walking one block" was changed to "walking 100 yards" and "full of pep" was changed to "full of life." These changes are unlikely to affect the reliability and validity of the scores. When it comes to the grouping of items and tests of scoring assumptions British research seems to replicate the findings of American research.

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