The challenges of service provision

CAMERON G. SWIFT, MARTIN P. SEVERS

Department of Health Care of the Elderly, King’s College School of Medicine and Dentistry, King’s College Hospital (Dulwich), London SE22 8PT, UK

1School of Postgraduate Medicine, University of Portsmouth, Portsmouth PO1 2DT, UK

Address correspondence to: C. G. Swift Fax: (+44) 171 346 6476

Introduction

A simple analysis of the historical account at the beginning of this supplement [1] indicates that the first British geriatricians pre-eminently identified a population of patients for whom there was no real service. They recognized a number of deficient elements, including the following:

1. A lack of credible accountability or responsibility within hospital clinical medicine. Although the workhouse infirmaries had nominal off-site medical cover, the somewhat blinkered stance of the then established specialties was to consign as far as possible the difficult, complex, multiple, recurrent, rather unprepossessing and seemingly intractable problems of this group of patients beyond the boundaries of mainstream hospital practice either to peripheral institutions or, by default, to the community.

2. A general problem of access for older people to high quality medicine. This arose both from ageist concepts of diagnostic and therapeutic priority and from the phenomenon of bed blockage attributed to the apparent burden of intractable disability and social need ‘inappropriate to the facilities of an acute hospital’—both perceived as the inevitable companion of advanced chronological age.

3. A broad fragmentation of care for a group of people whose complex and interacting needs required a synthesis of assessment and intervention. Such fragmentation lay between (i) medical specialties, (ii) professions within clinical practice, (iii) the organizations catering for medical, functional and social needs, (iv) primary, secondary and tertiary medical care and (v) episodes of contact with health and social care systems.

4. A conceptual orientation towards accommodation and support rather than the possibilities for treatment, functional recovery and prevention. This was linked to the prevailing degree of diagnostic and therapeutic negativity in the acute sector and signalled the fundamental necessity by whatever means to modify by direct involvement the practice of medicine in this context—hence the initial rationale for facilities and a clinical commitment for geriatricians in acute hospitals.

Coupled with the commitment, reforming radicalism and imagination of these originators and many of their successors, a number of historical openings in Britain, most notably the foundation and development of the National Health Service (NHS), have in the last half century allowed these concepts to be organized into tangible and remarkably cost-effective services with variable elements of quality across the UK in a way which is so far unmatched internationally. The indirect (and imperfect) markers of success have typically included a considerable reduction in the requirement for long-term institutional care (and its cost) in favour of an exponentially growing track record of successful discharge and community resettlement of older people after illness, the abolition of blocked hospital beds and an enabling of informal carers and community services through prompt crisis intervention and planned support [2-6]. While the almost revolutionary scale of this innovation in medical care and its economic potential remains substantially unsung in the public perception, both at home and abroad, it unquestionably holds a central place in the ethos of the current British Geriatric Society Jubilee celebration.

As has been the case historically, the translation of the key principles of responsibility, access, synthesis and soundly based interventional optimism into a defined, viable and high-quality service in which older people (our future selves) and their carers can have confidence continues to constitute the service goal of this specialty for the future. These concepts and the challenges confronting them, therefore warrant slightly closer scrutiny, bearing in mind the continuing and parallel need to expand and examine the knowledge base against which their credibility will be judged.

Responsibility

No two specialties share an entirely comparable rationale. Elements of systematic human physiology,
anatomy and pathology, specific techniques, equipment and skills, disease epidemiology and the availability of new interventions all constitute to a varying degree supporting 'pillars' sustaining the edifice of any organized specialty. All, however, share the responsibility for the delivery, development and standards of a service to a particular category or sub-category of patient. This is entirely applicable to the British 'mono-specialty' of geriatric medicine. The British geriatrician has from the outset been characterized by the willingness to shoulder such a commitment. Although some might argue that the designation of a specialty was to a degree an unfortunate necessity (the tardiness of clinical medicine as a whole in adapting to meet the needs of an ageing population), the historical record shows that positive change has been driven at least in part by the element of accountability inherent in specialist training and consultant practice. The widespread establishment of consultant-led departments in mainstream hospitals, the growth of the British Geriatrics Society, the presence of academic departments in all contemporary UK medical schools and the success of geriatric medicine as an established subspecialty of medicine with its own training structure and curriculum within the Royal Colleges of Physicians reflect the degree of recognition now in place.

The capability to embrace such responsibility in any situation entails the required clinical and leadership expertise, a clear perception of the policy and strategy required to deliver a service, the identification of the available resources relevant to the population served, an awareness of the criteria of effectiveness to be used, however imperfect, and a measure of agreement on these issues with the employing authority. The 'Aunt Sally' syndrome is unfortunately a familiar one in this specialty, whereby the rapid expansion of the consultant grade has resulted in appointees finding themselves from time to time in the unfortunate position of 'legitimizing' service failure by holding posts with impossible tasks and being held accountable. (This phenomenon is incidentally an inherent risk of specialization worldwide in both geriatrics and gerontology.) In Britain, regional specialty committees have now and for the future a position of 'legitimizing' service failure by holding posts with impossible tasks and being held accountable. The 'Aunt Sally' syndrome is unfortunately a familiar one in this specialty, whereby the rapid expansion of the consultant grade has resulted in appointees finding themselves from time to time in the unfortunate position of 'legitimizing' service failure by holding posts with impossible tasks and being held accountable. (This phenomenon is incidentally an inherent risk of specialization worldwide in both geriatrics and gerontology.) In Britain, regional specialty committees have now and for the future a particular remit in averting such situations.

The derived 'models' of service delivery in Britain (age-related, integrated, needs-related and their variants) incorporate without exception direct clinical responsibility for the geriatrician not only in the acute, rehabilitative and continuing care of older people, but also a direct involvement at an advisory, educative and partnership level in their community health care and health promotion. However demanding it may be, this comprehensiveness of view is soundly based and can be traced to the historical origins of the specialty.

The nature of the specialist responsibility of the geriatrician results in a variety of contemporary challenges. Paradoxically some of these arise from the very economic anxieties to which modern geriatric medicine holds the best solution—the concerns of governments about how to cope with the rising health and social care costs of ageing populations.

Substitutionary strategies
These have been driven by the rather simplistic perception that an identifiable group of older patients has no clear need for acute high-dependency facilities or specialist involvement and would be better placed for their rehabilitation or even in some cases acute care 'in the community' within a range of possible facilities, including nursing homes, general practitioner (GP) intermediate care units or nurse-led units.

Changes in the clinical advisory role
Recent years have seen strong initiatives to increase the perceived accountability of clinical medicine in terms of cost, consumer values and standards. In the UK the measures have included a radical restructuring, including the introduction of the so-called internal market and the substantial transfer of funds and responsibility for long-term care to social services. Although in theory there have been opportunities for geriatricians to define their work and resource needs via the contracting process, the performance pressures placed on general mangers, both purchasers and providers, have frequently (either by design or default) reduced the premium on clinical advice and interaction. The impact on specialists generally has varied, but has been potentially high for geriatricians, whose training and skills appropriately have a substantial service engineering element.

Alternative foci of interdisciplinary practice
'Multidisciplinary teams', which in any credible operational sense have their origins within geriatric medicine, have recently become fashionable in their own right and are 'seeding' with remarkable rapidity across the spectrum of professional practice and service provision. Their input to the care of older people may be from a wide range of contexts (e.g. assessment for community care, stroke units) with their own intrinsic lines of accountability, but without necessarily any direct or continuing responsibility to the 'comprehensive' geriatric medical services. This has both structural and potential resource implications for geriatric practice.

Central directives and protocols
Standardization of practice driven by cost accounting or audit criteria may or may not reflect best practice. A recent UK example is the requirement for banding for NHS-funded continuing care. This single-point
assessment mechanism differs from the approach evolved within the development of the specialty, in which the successful 'rationing' of the costs of long-term care has been an essentially clinical achievement through the consistent application of assessment, treatment and preventative approaches within a sound but flexible service. Although banding may entail a consultant opinion, there is no prerequisite for prior assessment or intervention. Similar principles underpin some fiscally driven concepts in the USA [7] and have also been reflected in initiatives to ration health expenditure on continuing care in New Zealand and Australia.

Strategies are required within British geriatric medicine whereby its practitioners will remain centrally and creatively involved in these issues, whilst continuing to promote and to give a clear lead in the maintenance and further development of best practice in its most comprehensive sense.

**Access to services of recognized standard**

That older people should have access without delay and at the point of need to the highest standards of medical diagnosis and treatment and, concurrently, to skilled interdisciplinary assessment and management tailored to their needs is axiomatic to those working within this specialty. Indeed, the development of services has been substantially about the reversal of their historical relative disadvantages in this respect.

Furthermore, evidence to date indicates that the postponement and shortening of dependency so achieved has benefits not only for individuals and populations, but also for the cost-efficiency of health services. This amounts to a more or less happy co-incidence of sound practice with cost-efficiency—a commercial success arising from a service ethos. This position has not yet acquired universal acceptance either amongst those concerned with philosophical aspects of health resource allocation or those obsessed with recurring rounds of short-term contracting, and there is a need for further health economic studies.

The misconceived elements are mostly older people themselves, in particular their underestimated capacity for recovery, and their carers (many themselves elderly), who constitute the best possible target for investment in an enabling service.

**High-dependency medicine**

The case for access to the full range of acute specialties and therapeutic options is progressively supported by evidence from epidemiology and randomized controlled clinical trials [8-10], several of which indicate a preferential benefit on certain clinical and operational outcomes with advancing age. In addition, the growth of investment in non-invasiveness in both diagnostic and interventional techniques has a natural and rational application to the needs of older people.

The principal organizational barriers to such access are operational policies discriminating negatively on the basis of chronological age and any tendency for geriatric medicine to be isolated geographically or conceptually from other specialties.

Although such ageism is principally characterized by a lack of awareness of the evidence, the rekindling of the philosophical discussion [11, 12] and the superficial appeal of the short-term economic perceptions mean that geriatricians are likely to encounter proposals founded on these considerations for the foreseeable future. The Royal College of Physicians has clearly endorsed the appropriateness of such access in its own carefully considered report on this subject [13].

**Specialist interdisciplinary practice**

The necessity for organized access to appropriately trained interdisciplinary skills at all stages of health care need often remain unappreciated despite the lessons of history. Assuming the relevant professional staff (including a geriatrician) is in place, access is predominantly a factor of appropriate and flexible flow of patients through the system.

The occasional tendency to equate interdisciplinary practice solely with rehabilitation may give rise to difficulties in both acute and continuing care. One risk of 'progressive patient care' is the inherent relaying of responsibility from one unit or team to the next. Given that organizational delay is invariably clinically deleterious in geriatric medicine, the phenomenon of 'waiting' for anything (e.g. transfer from acute care to a rehabilitation setting) implies a potentially damaging hiatus in interventional activity, during which valuable opportunities for planning, treatment, progress and, not infrequently, a revised decision to discharge directly without transfer are lost. Interdisciplinary activity in acute care is thus a clear requirement. At the same time, a general trend within the professions allied to medicine away from generic specialization in geriatric practice (with its inherent comprehensive service strategy) may have encouraged some colleagues in these professions to focus more specifically on rehabilitation and to perceive the constraints and time pressures of acute assessment, short-term disability management and discharge planning within emergency acute practice to be relatively unrewarding.

Superficially conceived organizational strategies intended to maximize the efficiency of bed usage may generate problems at all stages of a health-related episode. The recent drive to 'downsize' acute inpatient beds has, at times of peak pressure, resulted in an almost universal 'outlier' population and substantial
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and/or recurrent relocation of patients within a hospital. This has inhibited the smooth organization of interdisciplinary practice through the loss of clear ward-based activity, perhaps particularly the involvement of senior nurses.

Similar concerns relate to long-term care. Recent community care legislation in Britain [14] has had the effect of reducing or excluding the input of geriatricians to many patients in long-term care and it is not yet entirely clear how the revised legislation identifying a subset of high-dependency NHS-supported patients will rectify this. It is well known that in the past, regular review of long-term inpatients by NHS specialist teams has enabled (Marjory Warren-style) the return of some to realistic periods of community resettlement. Currently, the interdisciplinary review of such patients is inadequately standardized and may not involve geriatricians at all. Premature relocation of older people to nursing homes, either due to pressure on NHS resources or perverse financial incentives is manifestly deleterious, both for individuals and for scarcely resourced services. Thus, the precise focus, organization and mode of access to expert interdisciplinary practice in the primary care setting remain to be resolved.

Synthesis—making geriatric services work

It is well recognized that health care problems in late life are characteristically complex. This may arise in individuals from the presence of cumulative disorders, from the multidimensional consequences of one or more illnesses, from the difficulties in the rapid achievement of a full and factual case history, from the episodic, relapsing, exacerbated or recurrent nature of disease presentation or from combinations of these factors. Such complexity predisposes to fragmented service endeavour, constitutes an intellectual ‘turn-off’ for some clinicians, but conversely fires up a substantial majority of geriatricians.

Medical specialties

The ‘traditional’ linkage areas in geriatric medicine—notably orthopaedics and psychiatry—are now well defined and incorporated into specialist training. The operational success of their satisfactory interface (when present) with geriatric medicine is well attested [15] and there have been many recorded examples of productive and harmonious collaboration across these disciplines (extending also from service to training and research). The appropriateness of such arrangements is now rarely questioned. Some ‘growth’ service linkage areas are also evolving, including urology, urogynaecology, accident and emergency medicine, adult rehabilitation and cardiovascular medicine.

The district general hospital-based geriatrician has a remit to promote cohesive interspecialty involvement around the needs of an older person with respect to the range of subspecialties and to try and ensure that those with complex needs do not get ‘lost’ amongst them. This increasingly integrated role within medicine is tending to single out the geriatrician as the hospital inpatient and outpatient generalist of the future. Physicians in this specialty have also increasingly in recent years brought with them expertise in an additional medical subspecialty (although it remains to be seen whether this trend will be sustained under the new training structure). This integrative function has been beneficial to many acutely ill older people, but an expanded involvement in general acute medicine and/or a further subspecialty carries commitments of time and manpower which may need to be offset in other ways to ensure the continued viability and health of the overall comprehensive geriatric service.

Interprofessional collaboration

Given that interdisciplinary practice lies at the heart of, and has its organized origins in, geriatric medicine, this element of the specialty might be expected to exhibit a degree of established stability and quiet efficiency. The reality is that there is still a long way to go.

The other professions most concerned—nursing, the therapies and social work—have themselves been undergoing major change and evolution and discovering new roles, identities and responsibilities within health care. A component of this has been subspecialization. Trainees in the professions have been exercising their career options against a growing breadth of choice. Specialization in the care of older people enjoys varied representation in the training curricula. The continued enhancement of technical and academic standards has resulted in the attraction of high-calibre recruits. Unless interprofessional skills are superbly taught and the associated practical experience positive and fulfilling, career choices to specialize in the care of older people may be lost. There are therefore important implications for collaborative approaches to training.

The practising geriatrician needs to ensure that team dynamics work well. The attitudinal track record of senior staff even in this specialty has not always been one of universal distinction. The considerable professional satisfaction and mutually supportive experience of successful team activity requires active promotion in the context of expanding subspecialty and even mono-professional opportunities.

Recent NHS organizational change, while aiming to promote interdisciplinary practice, has at the same time inhibited some of its cohesiveness and quality. In some localities, the predominant, resource-driven, gatekeeping function assigned to social work staff as
dispensers of ‘care packages’ has resulted in a reduction or loss of involvement in other aspects of the interdisciplinary process, to the mutual disadvantage of the teams and the social work staff concerned. This inevitably has an adverse effect on the quality of assessment and management for both individual patients and the service as a whole.

An important distinction to draw within interdisciplinary practice is between activity as an end in itself and activity related to the provision of a service. Team operation within service constraints generally strengthens team identity and highlights the interdependence of the members in optimizing the use of one another's time.

There is a pressing need to move towards common performance measures derived from a sound evidence base, against which interdisciplinary practice in geriatric medicine can measure its standards, both intrinsically and in comparison with other units.

**Linkage between agencies**

The redeployment of budgets under the NHS Community Care Act has placed some obstacles in the way of closer partnerships between health and social services. The interaction of health with social need in older people is such, however, that failure to achieve an appropriate level of pooling of resources is bound to prove counterproductive. To some extent, budget holders in both sectors have begun to recognize this, recreating opportunities for geriatricians to provide advice on clinical issues and joint practice models. As is the case with interdisciplinary teams, the governing principle is the cost-effectiveness of specialist expertise and training across the agencies for those delivering services, rather than solely the setting up of appropriate accounting structures. Working examples of this have included jointly funded case managers with clear cross-agency work patterns and joint lines of accountability. In the case of continuing care, a strategy might entail the joint commissioning of a cross-agency team with a specific remit of assessment for continuing community or institutional care packages and a defined budget with which to ‘spot purchase’ services. Both such approaches allow for the realistic involvement of specialist clinical advice.

Similar approaches warrant consideration at the interface between hospital and community trusts to achieve optimal utilization of the limited resources available to each.

**Primary and secondary care**

The historical relationship between GPs and primary health care teams and the hospital geriatric services has also been one of evolving partnership. Those geriatricians whose departments have succeeded in providing prompt access and quality care have found their GP colleagues to be amongst their staunchest supporters in making the case for service investment. The multidimensional aspects of patient care within the specialty have given geriatricians a long-standing affinity with primary care issues. Strong arguments are advanced in support of experience in general practice as part of general professional and possibly specialist training. GPs and geriatricians have worked particularly closely together in the shared care of day patients and through the direct communication enabled by well-organized departmental liaison offices. Opportunities for GPs to gain experience and an expanded knowledge base in the specialty have been obtained through clinical assistantships, postgraduate medical education programmes and the Royal College of Physicians’ Diploma in Geriatric Medicine. It has never been assumed that all GPs would necessarily cultivate a specialist interest, which is not synonymous simply with a proper commitment to the well-being of a clientele of older patients.

In some UK localities, the trimming of hospital facilities and the reorganization of general practice have changed these relationships somewhat. The short-term impact of fundholding is difficult to gauge, but the concept of a primary-care-led health service remains in place. The needs of older people have been seen as a possible substrate for the introduction of managed care concepts, with comprehensive care packages, including acute inpatient care, purchased and managed by GP consortia. Other initiatives where the nature and cost-effectiveness of any collaboration between general practice and geriatric medicine remains untested include GP-supervised intermediate care units and screening and prevention programmes. Whatever experimental approaches are chosen, the necessity for a collaborative approach and for some form of shared accountability are clear.

**Continuity and information flow**

A broad general statement of the obvious is the ‘multiple episode’ aspect of late-life health care need, although to date there has been little systematic epidemiological delineation of its scale. Recurrence, relapse and exacerbation characterize the natural history of many high prevalence disorders in the age group, and functional and social consequences are the rule. This degree of complexity calls for an optimal approach to information handling. Strategies have included structured, problem-orientated medical summaries, patient-held discharge front-sheets and the holding of separate departmentally based summaries and correspondence. Most existing hospital records systems have proved inadequate to deal promptly and efficiently with the flow of information required. Many millions of pounds are wasted in duplication of investigation and/or treatments, in
repeated complex assessments and in the resulting excess hospital bed days, because of the unavailability of previous comprehensive information at the point of presentation. Not only is this wasteful of resources, but (because of delays) frequently deleterious to clinical outcome.

Geriatricians have a vested interest in the pursuit of solutions to this problem. Continuity of clinical responsibility is a key component of service effectiveness, which requires the immediate availability of medical, functional and social information. Innovations in intervention technology have been rather hampered by the perceived problems of compatibility between systems, but it is possible that the wider use of more broadly compatible 'off-the-shelf' basic software may allow greater flexibility in the development of devices such as patient-held 'smart cards'.

**General strategies**

The diversity of the service challenges and opportunities means that there is no single preferred simple strategy. Progress in the current changing climate will require comparable personal and intellectual qualities from today's geriatricians to those of the first specialists. The fundamentals of sound practice and service delivery which they elaborated remain unchanged. The historical effectiveness of these approaches and the continuing accumulation of supporting evidence constitute an intellectual foundation that underpins a range of strategies.

**Change and conservation**

Confidence in the integrity and value of the 'product' is no pretext to justify a 'siege' mentality in its defence. A continuous process of reform and modernization is imperative and probably requires a climate of extrinsic pressure for change to drive it. While many of the recent centrally driven 'reforms' in the UK have ostensibly introduced obstacles to best practice, many opportunities have also been presented. These have included the requirements to document standards and procedures in the context of quality control and contracting and to negotiate tangible (if not always realistic) performance targets. In theory at least, this has moved a step closer towards a more defined and less nebulous delineation of resource need.

Geriatric medicine has by now a reasonably documented baseline of described service models. This is certainly not the time to be indulging in internal disputes about the relative merits of the finer points of each model. The mental agility to re-interpret, re-apply and renegotiate the principles underpinning the known models within the framework of new administrative structures is now required. The adage of the baby and the bath water applies: it assumes disposal of the bath water as well as conservation of the baby. Driving such negotiations forward at a local and national level calls for front-end rather than rear-guard leadership style.

**Research and development**

A specialist service is a form of health care technology. Overall effectiveness and the comparative merits of alternative and constituent components must be evaluated. The case for on-going development will only be as strong as the evidence base.

Addressing many of these questions requires studies with large sample sizes, which are manpower intensive and entail major costs. The NHS research and development programme, although open to some criticisms, has provided an initial competitive grant bidding structure from which a number of UK research geriatricians have benefited. Increasingly, a cross-disciplinary and collaborative approach to any such work, including an emphasis on health economics, is proving mandatory. Sound epidemiological approaches are necessary to the design and conduct of large-scale studies. Hard experimental data may also be provided by smaller-scale randomized prospective controlled intervention studies of phase II or small-scale phase III proportions, utilizing 'models', stricter controls and possibly a range of surrogate and real end-points. The generalizability of findings may then require further study. In either case, experimental design and conduct are crucial. Figure 1 shows the effect of an interdisciplinary approach to the secondary prevention of falls in older individuals attending an accident and emergency department in a relatively small-scale randomized prospective controlled intervention study funded by a regional research and development grant [16]. Systematic examination and assessment of these older fallers on one occasion within a short period of the fall by a physician trained in geriatric medicine and by a specialist occupational therapist, with appropriate referral as necessary, led to a substantial (approximately 50%) reduction in the occurrence of

![Figure 1. The effect of an interdisciplinary falls prevention protocol on subsequent falls incidence at 4 and 6 months in a randomized prospective study. □, control (n = 178, eight men); ■, intervention (n = 154, eight men). (Data from Close et al., 1997 [16]).](image-url)
further falls in the intervention group over the ensuing 12 months. Information of this kind provides indirect evidence in support of the effectiveness in general of sound clinical and interdisciplinmary practice in the assessment and management of older people.

Topical issues in research and development with respect to health issues in late life include the need to achieve some harmonization of methodology and endpoints and the possibility of learning from international comparisons in collaborations with gerontologists and geriatricians outside the UK.

Specialty cohesion

Part of the richness of the specialty lies in the diversity of its practitioners. From time to time healthy interchange and difference of view has approached divisive proportions, at which point the perception of the specialty from without has been substantially weakened and its influence reduced. The reality is that the common service denominators of the specialty far outweigh the differences (although the standards of provision vary nationally) and it is on these that the focus should be concentrated.

The key elements of the specialty—service, teaching, training and research—are complementary and interdependent and there is a pressing need to capitalize on the combined service and academic strengths rather than allow these to drift apart. This is important in all areas of teaching and research, but particularly so in service-orientated research. The British Geriatric Society is seeking to develop a role in pump-priming preliminary research, reflecting the priorities of its membership which will, it is hoped, in turn enable its researchers to compete successfully for larger peer-reviewed funding in these areas from major external grant sources.

Specialist training in the specialty has been enhanced in recent years through representation in the committee structures of the Royal Colleges and the British Geriatric Society and with the development of its specialist training curriculum in posts significantly controlled and administered by regional postgraduate deans. This should prove beneficial to the development, maintenance and delivery of services in the long term.

Partnerships and autonomy

The membership of the initial 'Warren' team of specialist physician, senior nurse, physiotherapist, social worker and administrator has had to contend with a variety of erosive pressures. This core collaboration gave the initial impetus to change in medical and interdisciplinmary practice. Making progress today probably depends on much the same collaboration expressed in organizational terms. Many geriatricians have, for example, recognized this in accepting posts in management structures, in particular clinical and medical directorates or in occupying key advisory positions on a range of local, regional and national committees. Availability to provide advice on request to purchasing authorities is a particularly pertinent function within the current system. As with clinical practice, integrative involvement may help in achieving an equitable distribution of resources for geriatric services and in ensuring that resources specifically earmarked are not repositioned in less fruitful directions.

Mechanisms are clearly needed at an organizational level to build new bridges with the allied professions, but also in such a way as to sustain best practice and service traditions and ideally to promote these in partnership. There are strong grounds to commit a specific part of the activity of the British Geriatric Society to interprofessional activity—possibly through the establishment of a dedicated section.

Marketing

While the best advertisement for any specialty within medicine is its inherent quality and effectiveness, to the extent that health service decisions are influenced by consumer and market considerations as well as science, these virtues may not be instantly apparent to the uninitiated. They may not even be apparent to those with ostensible expertise in health service matters and in charge of the purse strings (the health commissions). Part of the ethos of the new market is the exploration of alternative forms of provision in the pursuit of 'value for money'. The substantial achievements of comprehensive geriatric medical services may appear relatively intangible in the short term compared with possible 'more economical' substitutes for a variety of its components in, for example, community-based facilities staffed by non-specialists or those from allied professions. There may, therefore, be a need for marketing, and the consideration of utilizing specific expertise in this area should not be dismissed out of hand. We are, however, all in the business of persuasion and this can be reflected in the preparation of well-informed, evidence-based and imaginative strategies to feed into the contracting process. The climate is to some extent one of devolution of specific local decisions rather than reference to central advisory bodies. There may also be a need for geriatric medicine to rethink the presentation of its credentials and rationale to the wider public through educational channels.

Some specifics

Financial pressures

The single biggest challenge to the present situation of health service provision is that of financial pressures
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The common factors responsible for increasing the cost of health care in Europe

The situation in England is increasingly complex with the National Association of Health Authorities and Trusts identifying 17 major drivers increasing costs [18]. Elderly people are involved with many of those cost drivers because of the costs they attract and the demographic changes in which they play a major part. In 1993/94, a finished consultant episode for geriatric care was £2673 compared with £991 for all specialties [18]. Demographic changes in the over 65-year-old population will cost the NHS an additional 0.6% per annum [3]. There will also be major impacts on Social Services, long-term nursing and residential care with a projected 1.1% annual increase in spending being needed [19]. This too could have major repercussions on NHS activity especially if not funded (by private or public means).

Whichever way one considers this picture there will be an impact on service. At one extreme we may have to choose which beneficial services should be offered to whom and which should not i.e. rationing [20]. However given the unpalatability of this direction and reasonably clear evidence of system inefficiency it is likely we will see a different spectrum of service development. This could either be a realignment of service development to priority areas [18] or towards a different approach akin to the patient focused care approach [21] suggested by the Booz-Allen Hamilton Management Consultants who suggested that

'For every dollar hospitals spend on patient care they spend another three to four dollars waiting for it to happen, arranging to do it and writing it down'.

Although finance is the major wind blowing the ship of service provision there are several other major factors which will alter its path.

National policies

At the end of the last government the NHS was showing all the signs of reorganization fatigue and there was an opportunity to concentrate on developing services [22]. The new government has already made some announcements which impact in a minor way on service e.g. the demise of the 'hello nurse' in casualty departments [23]. However more radical policies appear on the way such as funding programmes of care that will often span existing organizational, professional and functional boundaries [24]. If true it will challenge the hospital focused view on care and radically alter service planning and provision.

Research policies

In line with a partnership approach there is increasingly more emphasis on new evaluative measures focused on the value of research to users and the value of research to clients of commissioned research [25]. This movement has identified that health services need both research that will develop new ideas and treatments and research that will evaluate them and enable those that are effective to be introduced [26]. There are increasingly more commentators pointing towards a research agenda on new models of service delivery which could mean more and better health care for the same investment [27]. In the NHS there are signs of a response with the production of a Central Research and Development Committee Working Group on Service Organization and Delivery.

Management initiatives

The plethora of management initiatives in service provision is unprecedented. They tend to focus on service provision but invariably focus only on one part of the programme of care. Many need management consultants to facilitate and are quite difficult to assess from the cost benefit perspective. Some prominent examples include: customer-orientated service via incremental-realization with 12 different phases [28]; patient focused care via a radical re-examination of the way care is delivered in hospital [5]; patient's progress via patient's progress methodology [29]; Business process re-engineering; reconfiguration; managed care [30]; and pathways of care [31, 32]. Whether...
Professional initiatives

Professional initiatives challenge service provision directly or indirectly. Indirect challenges have come from Calman training and junior doctor hours, both of which have produced profound effects on consultants and other members of the multidisciplinary team. Direct challenges to the provision of service are coming from the evidence based medicine culture which underpins the Clinical Effectiveness agenda and the increasing move toward clinical performance analysis e.g. through clinical indicators. None of these agendas in their own right are bad but they are being introduced on a workforce already extremely squeezed, with little time and with increasing demands for additional activity. Whilst it is clear poor standards must be tackled, we must beware that we do not cast out of the system high risk patients, or gravitate to gamesmanship once clinicians are educated and understand the derivation of, for example clinical indicators.

Professional leadership must also be more willing to develop partnerships with other caring professions to enable and to consequently evaluate greater flexibility in working practice if improvements the delivery of patient care are to be secured.

User perspective

Patients and the public are becoming increasingly vocal about what they want and what they require. This public pressure should only be ignored at our peril. Many colleagues (including the authors) have seen at first hand how a well orchestrated, well founded public and media campaign can radically change purchaser and provider priorities. This is likely to become an increasingly important challenge which should probably be welcomed.

Elements of service development and provision

Having worked through the contextual issues of the challenges to service provision it is appropriate to consider the content issues. By that is meant the challenges posed by service provision itself whether by service development of others which has a knock on effect on a service, or one’s own attempts to change service provision and the issues that activity generates.

Essentially a service development is the result of a complex process. In the ideal world that process would be experimental development; systematic work drawing on existing knowledge gained from research and practical experience that is directed to producing new materials, products or devices, to installing new processes, system, services or to improving substantially those already produced or installed. The key word in this definition is systematic because it is this lack of a systematic approach which is a fundamental flaw in the approach to service provision in the NHS. Two other points are worthy of note, the first is that experimental development includes not only the development itself but also its implementation i.e. both the ‘what’ and ‘how’. The second is that there is a need for generic tools to produce the specific development. It is uncertain how much the NHS spends on development which isn’t experimental but the figure must run into many many millions. It is worthy of note that University Grants Committees and Research Councils spent zero on this area in the past, which contributes to its lack of scientific rigour. The net result is that there is no educational support for clinical and managerial staff, no system by which one learns either about successes or failures other than through the ‘lay’ professional press which for doctors includes Hospital Doctor, Geriatric Medicine, Care of the Elderly etc.

It is into this uncertain environment that managerial, business and political initiatives can find a safe haven. Would patients and the increasingly vocal public be concerned if they knew the NHS didn’t have any robust, scientific tools which were generally applied and on which to base its service development?

So what should a service development look like and how should we describe the changes in service provision that we wish to make? A recommended starting point is to use the Health Care Programme framework first described by Reinson in the USA in 1988. This framework includes four key elements: demography: knowledge of the characteristics and geographical distribution of the population; epidemiology: knowledge of the distribution and determinants of disease in populations; clinical research: identifying those interventions that have a positive impact on health; health services research: identifying the best ways of delivering care.

Demography and epidemiology

The link between demography and epidemiology is fundamental to identifying issues of condition incidence, prevalence, mortality and distribution etc. Many organizations view their services starting from their doors and often have no practical idea how their service links to the population in need. Once focused on the population in need it is easy to see how a service development in a rural community may be very different to that in an urban community, for example it may well be that rural communities would be better
Clinical research

Only then is it possible to address the issue of what interventions are useful and beneficial in practice. One then reaches another problem area. It is generally understood in practice that treatments need to be administered in a context made up of, for example, mode of administration, side effects and their treatment, diet, auxiliary care, associated treatments etc to real world patients under real world conditions. However we use treatments which have been rigorously tested in a 'laboratory' context, by trials designed to explain that effect X can be attributed to intervention Y. These are so called explanatory trials and include randomized controlled trials (RCTs).

There has been an increasing movement since 1967 to evaluate the rationale for pragmatic trials. Their aim is to evaluate the effectiveness of an intervention under real world conditions that would prevail once the intervention was in routine use [45, 46]. Pragmatic trial design is set up with this in mind but as can be expected it is more complex than the 'gold standard' RCT. A tension has developed between those that believe practice should be led by effectiveness trials and those that believe the efficacy trial is the 'gold standard'. The tension has surfaced recently in a British Medical Journal article on the Population Adjusted Clinical Epidemiology (PACE) project in Newcastle [47] which utilizes a patient register of all patients with various haematological malignancies in a given population as the target population for various treatment trials. This is not simply an academic issue because it is intimately linked with health services research and health care delivery. Implementing current research evidence requires not only an understanding of the trials' results and of the changes they imply for clinicians treatment decisions but also an appreciation of the organization, quantity and quality of services required to support these changes. This has been most eloquently explored for the use of anticoagulants in atrial fibrillation [48].

Health services research

The final element of a health care programme framework is health services research. What is perhaps staggering is how little health services research goes on in the NHS with regard to current changes in service provision. If we take the present fascination with the winter beds crisis, many hospitals in Britain are now making radical attempts to reduce admissions. Without evaluation the experience may benefit no one [49]. For those still not convinced that the gaps in clinical and health services research pose potential serious problems to service provision, two recent cardiac publications provide an example.

The first is a review of outpatient cardiac rehabilitation services in Scotland which concluded that outpatient cardiac rehabilitation was provided to a minority of patients with coronary heart disease. Programmes varied widely and were often more limited than those reporting in randomized trials [50]. The other was in Nottingham comparing myocardial infarction data from 1982 and 1984 with those for 1989, 1990, and 1992 and found that mortality had risen possibly partly due to the age profile of the patients from 16.1 to 21.7%. About 15 per cent of patients presented too late for thrombolysis. The authors concluded that 'The study highlights the differences between the selected patients of clinical trials and the general population of patients who have an overall mortality at least twice that of most people in trials [51].

Health services research is actually very complex but also extremely patchy and thus when we are faced with a real life issue of service provision it is important to think about real practicalities for example who is going to do what and when. The implications on professional leadership [22] and trade union activity [52] are obvious, however one might not have considered that for most services staffing is 70% of the costs. Returning to cardiac rehabilitation and emergency medicine, we find that staffing costs per patient in cardiac rehabilitation services ranged from £66 to £1433 with an average of £37 153. One of the few papers to admit to revenue consequences of an emergency medical assessment service pitched the cost for one hospital at £720 000 per annum [54]. High variability on service provision especially when high cost will attract more public, political and managerial scrutiny.

It is therefore becoming increasingly vital that we examine every step of our delivery system. Small changes in the delivery system can have profound effects on patient outcome for example one study showed the rates of completion of treatment for tuberculosis of 25-50% with unsupervised treatment. This improved to cure rates of 80-90% with relapse rates of less than 5% simply with supervised short-term directly observed therapy [55].

The final challenge to improved service provision is how to implement the service development. It has been fairly well proven that just giving clinicians information will only change some behaviours in some clinicians [56]. However to secure improvements will need a strategy to target decision makers [57]. Within the overall strategy it will be important that approaches match the beliefs of the people you wish to change. Some of these approaches are aimed at the individual while others are aimed at the organization [58]. It will also be very important to identify specific groups who are crucial to implementation success (or failure), for example if the development concerns an asthma service in the community special targeting may need...
to be done on those GPs with an unexplainable high admission rate [59].

Having implemented the new service it is vital for it to be evaluated to demonstrate that improvement has taken place, otherwise it gives the opportunity to detractors. This not only has disastrous effects on the staff but undermines the confidence of those who have invested in the service and will damage the standing of the service if unchecked. It is therefore vital to measure improvement. Measurement is only the handmaiden to improvement but improvement cannot act without it [60]. It is worthy of note that although not all change is improvement, all improvement is change and thus an expert in change management as part of the team or the use of a change management model [61] to support the process would appear advantageous.

Conclusions

The core principles underlying the development of successful services in British geriatric medicine are enshrined within its 50-year history, but warrant careful and regular revisiting and re-interpretation in the context of a rapidly changing and uncertain health care climate. These fundamentals have not changed and can be rediscovered within different organizational structures to promote the further development and growth of efficient services of high quality, tailored to meet the needs of the expanding older population. Expansion of the evidence base is imperative and there are opportunities to achieve this through research and development, without which specialist practice is unlikely to survive. This, together with its application to strategic planning and contracting, the raising of awareness and the promotion of best practice, requires a healthy collaboration and integration with other professions, research scientists and organizations. It also requires a concerted and cohesive effort within the specialty itself to ensure that its diverse but complementary human resources are deployed to maximum advantage.

Some key issues highlighted are as follows:

• Financial pressures are going to increase and not decrease.
• The organizational and social context of the NHS has and will continue to have a major impact on the direction and priorities within service provision.
• The focus on services for elderly people will increasingly come under scrutiny.
• There is a need to make research especially NHS research more relevant to practice.
• There needs to be better experimental development methodologies for service provision and for sharing the learning from individual local endeavours.
• The following checklist is proposed as a set of criteria for assessing the soundness of a service provision, proposal or development:

A checklist to face the challenge on current service provision or a service development

A: Is there any evidence that the service being provided:
   (i) Has taken into consideration local demography.
   (ii) Has taken into consideration local epidemiological data on the conditions of interest
   (iii) Can be accessed by most of those for whom it is designed?
   (iv) Is utilising current best evidence on its interventions?
B: Is there evidence that the interventions are being delivered:
   (i) To the target population?
   (ii) By the appropriate staff?
   (iii) By the appropriate staffing?
   (iv) In the appropriate environments?
   (v) At the appropriate time?
C: Is there any evidence that the service is cost-effective or cost comparable to similar units?
D: Is there any evidence that the service produces better outcomes than previously (in a new service) or as good as or better than a comparable service (in the case of an established service)?
E: Is there any evidence that communications between health care professionals and between health care professionals and patients occurs and is consistent throughout the service?

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