

A case for the development of departments of gerocomy in all district general hospitals: discussion paper

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It is a well known fact that the proportion of elderly people in our population is growing rapidly, and that of the younger workforce is diminishing. The question of how to care for the sick or frail elderly is therefore an urgent and emotive issue, viewed differently by everyone involved. Hard pressed 'carers' - often isolated family members - are at the sharp end. Hospital staff have different problems, cutbacks being one of the more obvious ones. The government, which is ultimately responsible for maintaining one system among many systems, has a different perspective again. This perspective dictated by competing demand on resources can change, of course, according to which party is in power.

What we need is a scientific approach to care: an objective analysis of current practice to cut through conflicting ideologies. Such an analysis would enable us to formulate a model of care. With time and careful planning our systems could be altered and improved radically, thus easing the financial, emotional and physical burden for all involved in care - not least for the elderly themselves.

A history of care

The present structure of our health care system is based upon policies formulated at the inception of the National Health Service. The chronic sick elderly were to be rehabilitated while the frail elderly were to be managed in residential homes. To this end, in 1948 the government transferred responsibility for the chronic sick to the Regional Hospital Boards. In the early 1950s over 10 000 chronically sick aged awaited admission to hospital. The specialty of geriatric medicine grew as a response to this demand. At one time the UK led the world in the development of geriatrics. Ollbrich and Woodford Williams introduced the concept of acute care; Hodgkinson developed the 'active no-waiting list' approach to treatment; Horrocks introduced an age-related admissions policy; while Hall, and latterly Grimley-Evans, championed the cause of integration with general medicine.

Health Authorities as successors to the Regional Hospital Boards still hold responsibility for geriatric patients - but today government support is no longer evident. As a result there are many different styles of geriatric medical practice. The sick aged are expected to be rehabilitated ever faster, whereas no attempt is made to treat the frail aged. They are admitted to residential accommodation in local authority, voluntary and commercial homes where little more is done for them.

Current practice

The effectiveness of all advances in care for the elderly is undermined continually by government policies.

Despite all the cutbacks and talk of cutbacks, there is considerable evidence that money itself is not the problem. It is the way in which the money is allocated. The recent report of Sir Roy Griffiths illustrated the scale and complexity of the problem of funding for the aged¹, and government has postponed implementation of his recommendations. Amongst all the discussion it is generally unrecognized that Griffiths was asked to give advice on controlling a budgetary overspend, and not on the best way of developing services. Furthermore, the government White Paper² that was produced as a result of his report bears little resemblance to his recommendations.

The heart of the problem is an overspend on the Board and Lodgings Allowance³. While saving voluntary organizations from financial difficulties, the overspend fuels a massive and undesirable expansion in private rest and residential homes. The government spends £1200 million a year on uncoordinated, unplanned, unsupervised care. At the same time it urges its own employees to make better use of scarce resources.

Over the 20 years that I have been developing geriatric medical services for the St George's Hospital district in South London I have seen 10 hospital closures. In 1990 St George's had to close a 14-bedded, purpose-designed rehabilitation ward, shut a 40-place day hospital, and cut back the discharge liaison nurses. All to save £160 000.

Clearly something needs to be done. We need to develop theoretical models based on scientific principles in order to simplify our complex and confused systems. Professor Rene Thom believes that the social sciences have not yet developed models because qualitative measurement gives such a mass of data⁴. Nowhere can that be seen more clearly than in the care of the elderly. Social, psychological, environmental and biological factors all interweave, making it difficult for outsiders to assess what is going on, and for insiders to agree with one another on the correct approach.

A model for change

Professor Harrison, a mathematician in Charleston, South Carolina USA, and I have developed a theoretical model of care using the scientific principles of the interaction of space, time and movement⁵. Patients are entering and leaving hospitals in continually flowing streams of movement. The patient, the staff, the facilities in hospital and in the community at large all interact to form local rates of movement.

Wards flow at different speeds according to whether they are designated acute medical, rehabilitation or longstay beds. So the movement is always related

Table 1. Midnight bed census 16 August 1989
Departments at St. George's

	Exponential flow rates				
	First component		Second component		
	Beds	n	days	n	days
Under 65 years	360	288	6.1	84	42.9
Over 65 years	382	249	11.9	131	73.9

to time. When we know the space available, and the rate of flow, we can begin to plan hospital care using scientifically based 'operational modelling'. We have developed a method using exponential equations to unravel the pattern of bed occupancy. With this method we can calculate the numbers and rates of flow of different types of patient. Using computers we can then analyse the pattern of occupancy in midnight bed states to calculate the speed of movement.

Table 1 shows the results of a recent analysis at St George's Hospital in Tooting. On the day in question 742 beds were occupied: half by patients under 65, and half by patients 65 and over. Eighty per cent of patients aged under 65 were passing through in 6.1 days and 20% in 42.9 days. For those over 65 years, 65% were passing through in 11.9 days and 35% in 73.9 days. Therefore 215 of the 742 beds, or 3 in every 10, were occupied by patients requiring quality rehabilitation. Further study showed that many of the patients were not getting the care that they needed.

A similar analysis of the 13 departments of geriatric medicine in the South West Thames Region showed a short stay rehabilitation rate for sick patients between 19 and 50 days, and a longstay rate between 556 and 909 days. The time difference in rehabilitation within and between departments is staggering (Table 2).

Old people are occupying beds for longer times; but paradoxically the sick aged are being pushed through hospitals as fast as possible in order to free beds. Capra argues that Newtonian law is so deeply

Table 2. Length of stay calculated from one midnight bed state of Departments of Geriatric Medicine

Hospital	Acute expected stay (days)	Longstay expected stay (days)	Total expected stay (days)	Patient per bed
1	56.1	833.8	70.3	5.2
2	28.2	909.6	57.1	6.4
3	22.2	833.8	47.5	7.7
4	35.0	588.7	48.6	7.5
5	26.8	769.7	65.4	5.6
6	25.5	714.8	35.8	10.2
7	19.7	526.8	38.9	9.4
8	33.8	667.2	54.1	6.7
9	33.8	556.1	61.9	5.9
10	19.0	556.1	39.5	9.2
11	50.5	909.6	82.4	4.4
12	16.6	588.7	32.7	11.2
13	20.1	667.2	30.5	12.0

Table 3. Impact of changing the balance of short and longstay patients within a department of geriatric medicine

Allocated beds	Number short stay	Number long stay	Admissions		Total
			Short stay* ×12	Long stay† ×0.5	
100	20	80	240	40	280
100	40	60	480	30	510
100	60	40	720	20	740
100	80	20	960	10	970

*Assuming 12 admissions per acute bed per year, ie an average flow rate of 36 days

†Assuming 0.5 admission per long stay bed per year, ie an average flow rate of 2 years

ingrained in Western thought that we cannot even consider any other style of movement⁶. We talk about pressure, and force, and speeding up, and early discharge, as if humans are machines and hospitals factories. But rehabilitation cannot be hurried. Old people need physical and emotional courage if they are to gain the necessary independence and fitness to return home. And the mustering of that courage takes time and encouragement. Our studies show that hospitals would make more efficient use of beds by concentrating on reducing the number of longstay frail aged patients through intensive rehabilitation work, than by trying to speed up discharge of short stay sick patients.

Table 3 shows why decisions made relating to a small number of patients only, give a department its success. Rehabilitation of about 20 long stay patients a year, taking many months to achieve, is the key to a high turnover department of geriatric medicine. Rapid early discharge is a false economy, if it encourages permanent institutionalization elsewhere.

Policies operating over the last decade have increased numbers in care. Such uncontrolled expansion must be checked. In terms of our model, long stay rest and nursing home beds are 'attractors' and we need to have rehabilitation to control those attractors. Our model does not make divisions between private, voluntary and state care. It is concerned solely with rehabilitation and long term care.

Sir Roy Griffiths' recommendation that assessment and rehabilitation should be compulsory before admission to long term care is in accord with our findings. Unfortunately he proposed that the responsibility for that rehabilitation should be with the local government, assisted by general practitioners. Up until now that sector has not distinguished itself by the quality of its rehabilitation work (with a few notable exceptions). In making his recommendations, Griffiths overlooked the fact that it was precisely because of the lack of rehabilitation in local authority-run units that government placed responsibility for the chronic sick on the hospitals. Implementation of his suggestion implies that a new assessment and rehabilitative service must be developed.

Some basic principles to consider when dealing with the elderly were published by Pfeiffer in 1985 in the *Journal of the American Geriatrics Society*⁷. They are as follows:

- (1) Older patients are treatable.
- (2) Care of the elderly requires a multi-disciplinary approach.
- (3) Intervention in the life of an older person should always be preceded by a comprehensive assessment of that patient's overall functioning.
- (4) Care of the elderly requires a new type of service: coordination of services or case management.
- (5) The role of the family is critically important in the treatment of older patients.
- (6) Care of the elderly requires special training in geriatrics and gerontology.
- (7) Not only are older patients treatable, they are teachable.
- (8) Older patients are not only treatable and teachable, they also teach us about old age.

These principles are based on the fact that disease presents differently in old age, and often comes disguised as a social problem. Falling, inability to cope, immobility or confusion are all symptoms of disease, not age. Therefore no one should be admitted to permanent care without pre-admission, multi-disciplinary assessment and inpatient rehabilitation.

The quality of permanent care also needs to be reassessed continually. In 1977 I was sponsored by the King's Fund to visit Denmark and see the Danish approach to care. The lack of rehabilitative work was obvious, with extra beds in all the hospitals. However, whereas our long stay patients were nursed in clinically sterile environments, in Denmark they were cared for in single rooms surrounded by their own belongings. On my return to St. George's Chris Smith, a postgraduate psychology student, and I tested a hypothesis that students shown patients surrounded by family photographs and personal belongings would react to them differently. The experiment was simple, the results striking⁸.

Consequently I began to introduce a more informal environment for our elderly patients, and eventually developed a new scheme - the Bolingbroke Hospital Long Term Care Project. This project demonstrates how older people with multiple handicaps can be nursed in single rooms⁹.

Departments of Gerocomy

With basic principles and scientific research findings in mind, we can begin to make proposals for change. Three needs can be identified. Firstly, the need to provide a 24-hour emergency network - the hospital. Secondly, the need to provide a single room accommodation for patients who cannot be rehabilitated to independent life in their own homes, with trained staff to tend them. Thirdly, the need to provide a rehabilitative environment, a half way home that bridges the gap between the hospital and the nursing home.

These therapeutic units should have responsibility for coordinating and controlling admission to, and rehabilitation from, state funded care in the private, voluntary, local authority and hospital sectors. They would be geared towards accurate diagnosis of problems, convalescence, and rehabilitation. They would be run according to the science of tending the aged. I call them 'Departments of Gerocomy'. Gerocomy - from the Greek, 'Old, tending' means just that, and has much deeper roots as a word than geriatrics¹⁰. A Department of Gerocomy implies a different approach from standard geriatric treatment.

To initiate a change towards a care system including departments of gerocomy I propose that

there should be a nationwide cross-sectional study of resources in the private and voluntary sectors, local authorities and in the National Health Service. Districts will then calculate the numbers of short and longstay patients and their flow rates. Using all the information obtained, each district should be asked to plan a properly coordinated service for the aged. The plan should provide for the departments of psychiatry for the elderly and geriatric medicine to be combined on the district general hospital site.

Permanent care for the aged should be shifted from the hospital ward to single room accommodation and our present local authority homes could be converted into jointly staffed and run departments for this purpose. Such homes would be ideal places for staff training, which must be compulsory. Finally, a conversion and building programme would include creating specially designed and equipped departments of gerocomy within the general hospital.

The ideas that I have put forward in this paper are neither novel nor revolutionary. In 1943 Dr Marjorie Warren wrote a paper proposing the development as a specialty within medicine of geriatrics¹¹. In the following summary of her paper I have merely changed the word 'chronic sick' to aged.

- A higher standard and a great deal more work is needed in the care of the aged.
- The aged should be diagnosed and treated in special blocks in the general hospital set up and equipped for the purpose.
- The aged should be admitted to homes through hospital units only. All homes for the aged should be attached to hospital units to ensure close follow-up.

We need to find better, more efficient ways of caring for the elderly in our society. Underlying different views of how to do so is a recognition that taking responsibility for the elderly is taking responsibility for ourselves. How do we want to live in 40, 30, 20, 10 or 5 years from now?

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