Physiotherapy in geriatric rehabilitation

Mrs. M. Morrison (*superintendent physiotherapist*)

There are many people involved with the rehabilitation of geriatric patients; the speech therapist, the chiropodist, the orthopaedic surgeon, the physical medicine consultant, the porters, the ward maids, all these people can have a great effect.

We work extremely closely with the occupational therapists without whom our task would be made that much more difficult and who complement our work, and unless the medical social workers helped to sort the family and the home problems out, the patients would soon be back in hospital. The geriatrician is the co-ordinator of all our efforts and his are the hands which hold the reins for our guidance. Much of our rehabilitation would be wasted if we were not on good terms with or did not work on the same lines as the nurses. It is infuriating to see nurses lifting a patient out of bed, when we have spent a long time teaching her to do it herself. The ultimate aims of geriatric rehabilitation are the same as in any other field of medicine—the restoration of independence and the maximum possible restoration of physical and mental functions. I think the most important step is to get the patient out of bed at the earliest possible moment the illness permits; bed is a dangerous instrument and has more side-effects than the most potent medicines yet it is still prescribed and used casually, and in the case of the older patient is that much more dangerous.

Asher says, "rest in bed is anatomically, physically and psychologically unsound. Look at the patient lying in bed, what a pathetic picture he makes, the blood clotting in his veins, the lime draining from his bones, the scybalus blocking his colon, the flesh rotting from his seat, the urine leaking from his distended bladder, and the spirit evaporating from his soul."

Most people who have not experienced working in geriatrics think it must be boring but it is not; they think there is no future in it but there is, for it is so rewarding and a great challenge to send an old person back to his or her place in society. Physiotherapy for geriatric patients is much the same as physiotherapy for any other patient, only it is taken at a slower tempo and it requires constant repetition. After the older patient has been acutely ill he may suffer from confusion, brain damage, or anaemia resulting in disorientation and lack of comprehension, lack of confidence, fear of falling or walking or lack of energy. His haemoglobin level may be low, and the drugs which cured his acute illness may have side-effects such as diarrhoea or dizziness. The lack of the will to live is probably the most difficult to overcome. Maybe the patient has outlived all her generation of family and friends and is not very happy living with a daughter and son-in-law with two or three grandchildren.

Dr Irvine has described most of the equipment we use. In addition to these we have parallel bars and a mirror in the department so that the patients can actually see what they are doing when they are walking. Toe-raising calipers and plaster of Paris or some form of plastic back slabs are also used, because patients often sag at the knees when they try to walk and it is hard work trying to hold them up. If you bandage their knees rigidly first, it's a great help.

We use a technique called proprioceptive neuromuscular facilitation which was developed in America; it involves maximal contractions of the muscles you are trying to use and helps the re-education of the muscles. One person upon whom this method has been used is not in fact a geriatric patient but had a severe stroke and is now almost completely recovered. The treatment went as follows: She was unconscious so we had

to treat her in bed, giving her passive movements just to keep all the muscles moving and the circulation going, to prevent contractures and so on. As soon as she was conscious she was made to sit out of bed, but before that we treated her with exercises in bed using proprioceptive neuromuscular facilitation. The first exercise is bridging, which means lifting the hips off the bed. This facilitates the insertion of a bedpan and it helps the nurses a great deal. We also taught her to roll over from one side of the bed to the other. We always treat the good side first, not the affected side. Because 3 per cent of that muscle tone is lost a day, the strength on the unaffected side must be maintained because this is the side that will take most of the strain when the patient begins to walk again. The sort of arm exercises we give usually involve the patient's trying to move her arm whilst it is being held by the nurse or the physiotherapist; regular application of these exercises will gradually bring back strength to weakened muscles. Leg and trunk exercises follow the same principle. The next step is to restore the sense of balance by standing the patient at the end of the bed, and then trying to push her either forwards, backwards or sideways whilst continually telling her to resist our efforts. Having restored the balance, the patient learns to walk. If there is no movement of the arm we use a tripod initially. Now the general opinion is that the patient should progress from a zimmer to a tripod, whereas in fact it is the other way round; you only use a tripod when there is no movement in the affected side, and as soon as there is movement in the affected side a zimmer is used, which makes the patient two-handed again.

To be a rehabilitation physiotherapist in geriatrics you need a great deal of patience, good stamina, plenty of enthusiasm, and co-operation from fellow members of the team. You must have a sense of humour and a sense of urgency, and particularly you need good lungs; this last thing is essential as the patients are practically all stone deaf.

In geriatrics, and indeed in any other branch of physiotherapy, it is no good trying to push an old person to greater effort if their haemoglobin level is down to 45 per cent or if they are suffering from malnutrition. Patients are sent up sometimes with arthritis of the spine for short wave diathermy, and they are found to be tense and fearful. Of course relaxation makes a world of difference. Patients will talk to physiotherapists because we spend quite a long time with our whole attention on them, but when the consultants and other doctors come round the presence of a crowd is not really conducive to confidence and they cannot tell their fears or easily ask questions. Nurses are usually busy making beds, giving them tablets, washing them and so forth and the patients are a bit shy of discussion with them, but we can pass on the queries to the other members of the team to sort out.

The problem of amputation

Another problem which sometimes arises is that so many old people get gangrenous toes. We have a technique whereby if there is going to be an amputation, we measure the leg, make a plaster of Paris case before the amputation and then make a mould of the case; we then mould some plastic round it, stick this on to an old prosthesis and within 10 to 14 days have the patient back on her feet again, instead of sitting and waiting about four or five months for the limb-fitting centre. When you recall that the average expectation of life after an amputation is 18 months, if the patient is sitting six months of that time in a wheel chair waiting for her leg she will have lost a third of her remaining life. She will be sitting there looking on herself as a cripple; she has lost a limb and her whole attitude is one of depression. With our technique the average length of stay after amputation is three weeks, by which time they are walking up and down the stairs, they are getting in and out of the bath, they are able to dress and undress themselves, and they can go to the limb-fitting centre without having lost their walking pattern, they haven't lost their balance and they go straight on to a proper limb.

As regards domiciliary visiting, we know the patients well, what they can and

cannot do, and we are able to suggest modifications in the home such as ramps for wheel chairs, grip rails, extra banisters, locks for the beds perhaps and all sorts of things. This again is part of treating the whole patient. We get a good idea what the home life is like and when we have met the husband or wife and seen the situations that they have to cope with it helps us with our treatment for the few remaining weeks that the patient is in hospital.

We use group exercises for general stimulation and for competition. When a patient reaches a peak (and you quickly sense this) she must be discharged from the hospital as soon as possible, otherwise she will begin to deteriorate again. This is where the medical social workers play their part in placing the patient in the most suitable home. After discharge we have the patients up for a few short courses just to prevent deterioration.

Patients with arthritis represent the second largest group we deal with, and in many cases they have knee flexion deformities. We treat this by soaking towels in iced water, wringing them out and wrapping them round the knee. This is better for relieving arthritic pain than the old heat lamp. We then treat them by proprioceptive neuromuscular facilitation because most of them have got weak flabby muscles and if weak flabby muscles are holding a joint it is not very stable, therefore it is painful. The stronger the muscle can be made the more stable the joint will be and the less pain the patient will get. Another thing we use ice for is the arm in spastic hemiplegia; the arm is dipped three or four times into a bowl of ice water all the spasm is relaxed, not for any great length of time but for just sufficient time for you to exercise the stretched muscles. Gradually the time of relaxation gets longer and as the stretched muscles become stronger, some movement comes back in the arm.

Occupational therapy in geriatrics

Miss H. Goldstone (*head occupational therapist*)

For many years occupational therapy in geriatrics simply meant handing out a ball of dishcloth cotton and a pair of knitting needles. It is a fallacy which is still believed, that if people are moving their hands their minds are occupied; this is just not true, especially in geriatrics. When I first came to St Helen's I realized that I was not just an occupational therapist come to work in geriatrics; I was a member of a vital team, full of enthusiasm, led by Dr Irvine, and the rest of us were carried along on a wave of enthusiasm which has not waned in seven years—the most exciting seven years of my life. I still enjoy every minute of it because we never know from one day to the next what he is going to think up and what we are going to be expected to do.

Of course the whole conception of occupational therapy has changed as dramatically as all other treatments in the last few years. The aim of treatment is to encourage personal independence, to assist the patient to regain confidence, to maintain mobility whether this is in walking or in a wheelchair, and to help the patient to live as near normal a life as possible. The types of illness we mostly treat are strokes, rheumatoid arthritis and Parkinson's disease. Mrs Morrison has spoken about the attitude towards the patient and the need of a good sense of humour and I add to that a very real love for the patients. I agree with Dr Ashley that all people working in geriatrics should be hand-picked. For most of these patients who come to us in hospital it is probably the first