7. In Collaboration with Orthopaedic Surgeons

J. REID

The purpose of collaboration

Arrangements for special collaboration with orthopaedic surgeons in the management of elderly fracture patients were found in 43 of 289 Departments of Geriatric Medicine in the UK surveyed in 1985 [1]. Such collaboration between physician and surgeon should give a measurable benefit to the patient, such as reduced mortality or greater independence after returning home, or to the NHS, for example, with reduced length of inpatient stay or lower readmission rate. Both the presence of neurological disease, notably dementia, and the extent of dependence on social support prior to fracture have a strong influence on these outcomes. The older the patient, the more likely is the presence of mental impairment and physical dependency. The effectiveness of collaborative care for such elderly orthopaedic patients has recently been reviewed [2].

Who needs the physician's help?

With more people surviving into old age and an increase in the age-specific incidence of femoral neck and osteoporotic fractures, orthopaedic surgeons are dealing with rising numbers of frail elderly patients.

There are many aspects of good clinical care which need not involve a consultant physician. For elective orthopaedic procedures, predmission screening can be undertaken by a general practitioner using a pre-arranged protocol. This should identify health problems influencing peri-operative care, and social support problems influencing discharge arrangements. Occasionally, such screening may identify complex health issues requiring referral to a physician.

For older infirm people suffering fractures which do not require internal fixation, special arrangements have to be made to prevent inappropriate hospitalization. For example, a patient with an upper limb fracture and contralateral hemiplegia may be virtually immobilized for several weeks owing to inability to use a walking aid. Coping with the situation will require not only the provision of appropriate aids but also access to a care manager (social worker, occupational therapist or nurse) who can arrange additional help during the fracture-healing period. Again, it is only a small minority of such patients who have health problems which require the involvement of a physician.

For patients with major trauma, such as femoral neck fractures or multiple injuries, there is good evidence that collaboration between orthopaedic surgeon and physician in geriatric medicine is of benefit [3].

For all patients requiring hospital admission as a part of their orthopaedic care, good practice should include discharge planning, communication with relatives and carers, and indentifying the optimal discharge timing in relation to the patient’s condition and the community support available.

How can the physician help?

Peri-operative care: Prophylactic antibiotics, prophylactic anticoagulants, prevention of pressure wounds and maintenance of adequate nutrition have all been shown to influence orthopaedic surgical outcomes [4]. Most patients with femoral neck fractures have significant accompanying medical disabilities, often contributing to the injury. ‘Many elderly trauma patients are distinguishable from patients admitted to geriatric assessment units only by the fact that they also have a fracture’ [5]. The role of a physician in the general management of such patients appears self-evident. Whether every elderly orthopaedic inpatient needs to be assessed by a physician pre-operatively is doubtful. A few do. For most, achievement of a pain-free, stable fracture is the first step. Medical management then follows fixation.

Post-operative treatment: Investigation and management of multiple pathology, rationalization of medication, and co-ordination of functionally orientated nursing and paramedical care are all aspects of good geriatric practice. Given the relative scarcity of physiotherapy and, particularly, occupational therapy, it is important that these rehabilitation services are deployed effectively for those patients most likely to benefit. There is a need to set realistic therapeutic goals, and advise those planning discharge accordingly.

Carer counselling: Pre-discharge planning should include an opportunity for those who will care thereafter to speak to a senior member of medical staff. Counselling is likely to involve not only the practical consequences of the orthopaedic incident, but also wider questions about health in old age, community service available, and how to cope.
Risk management: The discharge home of a frail elderly orthopaedic patient often carries an element of risk. There may be various pressures in the situation, with the hospital anxious to vacate a bed, carers seeking to delay discharge or find alternative residential care, and the patient fearful of further pain or injury. Successful early discharge schemes must address all these issues, balancing the risks involved against the costs of services and the benefits of an early restoration of confidence and independence.

Ensuring equity: The NHS can only offer a finite amount of care. Alternative residential places are also in limited supply. Indeed, the United Kingdom has fewer institutional beds per head of its elderly population than most other Western countries. Equity demands that, whatever the resources available, it is used to the optimal benefit of the greatest number of most deserving patients. Within the current UK health care system, the geriatrician is ideally placed to advise on the equitable use of local resources for the elderly.

Providing follow-up: Following discharge, continued rehabilitation may be at home or through day-hospital attendance. For many orthopaedic patients there will be a need for the specific management of medical conditions, such as osteoporosis, which have been identified at the time of hospitalization.

In each of these six areas, the Physician in Geriatric Medicine should be able to bring relevant advice and clinical skills to the patient's benefit.

Models of collaborative working
Each of these contributions of the physician of geriatric medicine can be provided within a variety of models of practice [6] (Figure):

1. Patients may remain in an orthopaedic ward and be cared for collaboratively in that setting. This may involve a clearly designated group of beds. The geriatrician's team may provide day-to-day care; the orthopaedic team also conducts ward rounds. Such beds must be protected from 'blocking' by fast-tracking those unlikely to benefit: sending home if fit, transferring to continuing nursing care if severely demented and highly dependent.

2. Alternatively, patients may be transferred post-operatively, as soon as surgically safe, to a designated ortho-geriatric or geriatric rehabilitation ward.

Figure. A model operating policy for combined management of hip fracture between orthopaedic and geriatric departments (after reference [6]).
rehabilitation area under the care of the physician in geriatric medicine, often labelled a geriatric-orthopaedic rehabilitation unit or GORU. The physician's role in this setting has been the subject of numerous publications [7].

3. A 'rapid transit' system of care has been pioneered in Australia [8]. Every effort is made to make the inpatient stay as short as possible with general home support for a few days to enable early discharge. A high level of physiotherapy and social support is required in the community, not widely available to either general practitioner or geriatrician in the UK. Peterborough District Hospital [9] has developed such an early discharge to 'hospital-at-home' services. However, only half the hip-fracture patients admitted are managed in this way. A similarly accelerated discharge programme can be instituted into nursing home beds for post-surgical care until discharge home is possible. Experience in the USA [10] suggests this can reduce the likelihood of eventual discharge, perhaps because of the absence of a rehabilitation team approach within most nursing homes. In any of these models of care, it is advisable that the geriatrician contributes as outlined earlier.

Making sure it works—audit

Health care purchasers wish to ensure that defined standards of care are achieved. Outcome measures such as death rates, readmission rates within defined time intervals, and self-rated general health surveys are being developed. Of particular concern to GP purchasers are definitions of fitness for discharge and adequate pre-discharge planning. For certain orthopaedic procedures, specific complication rates such as prosthesis failure, wound infection, and thrombo-embolism may also be usefully audited. Ideally, outcome monitoring should include a measure of the burden placed on the family or other carers. The geriatrician must be able to offer advice and assistance in developing relevant, practical quality measures; further research into outcome measures may also appropriately involve the geriatrician.

References


Author's address
Stirling Royal Infirmary, Livilands, Stirling FK8 2AU