

developed varicella within a week of delivery and were given globulin, 105 developed clinical varicella, which was severe in 16, but there were no deaths.¹⁵ There were no controls, but the data suggest that the severity of infection, if not the attack rate, can be reduced by the use of zoster immune globulin. Failures of treatment have, however, been reported, and no relation seems to exist between the dose of zoster immune globulin and the severity of neonatal varicella.¹⁶ Severe or progressive maternal or neonatal infection should be treated with intravenous acyclovir, which is safe and can improve the outcome appreciably.¹⁵ Prevention of chickenpox during pregnancy is clearly desirable and would be a major benefit of the use of varicella vaccines in future.

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Restorative gardens

Green thoughts in a green shade

Recent research in environmental psychology is now giving encouragement to the call for the revival of the old tradition of providing gardens for hospital patients. Although little progress has been made in the United States, where the research has been centred, the United Kingdom seems to be leading the revival.

Psychologists have determined that the tunnel corridors, clutter of equipment, frightening medical machinery, blank walls, dreary views, noise, and harsh lighting that characterise modern hospitals are all environmental factors that increase blood pressure, heart rate, and the endocrine responses that accompany anxiety, fear, and anger.¹ By contrast, views of trees, lawns, flowers, and water promote healing by encouraging an attentive state that reduces tension and fatigue.²

These studies thus rediscover techniques long practised, but often neglected. In the West the provision of gardens for hospital patients dates from the courtyards of the mediaeval hospices that flourished both in England and the Continent. During the Renaissance and the Reformation hospitals became charitable institutions for plague victims and the poor. Then it was a rare establishment that provided gardens for the emotional restoration of patients. When John Howard made his survey he found only two British hospitals that met his garden criteria.³ Howard commented favourably on the provision of gardens at St George's for the Sick and Lame and the British Lying-In Hospital in London, but he particularly admired the Santa Maria Nova in Florence.

During the late eighteenth and early nineteenth centuries a fusion of Romantic ideas about nature, democratic ideas about the treatment of the poor, and antiseptic ideas about the treatment of the sick merged to call forth new hospital designs. Mental hospitals were built with gardens, and many acute and chronic care hospitals had gardens between their two and three storey pavilions. The City and County Asylum in Hereford (1868-71) and the London County Council Asylum at Claybury, Essex (1901), are typical of the mental hospital plans; while the Herbert Military Hospital, Woolwich (1861-5), built for Florence Nightingale, and the Leeds General Infirmary (1864) show the way that gardens worked in the new pavilion style.⁴

More recently the discovery of antibiotics and the advance

of high technology diagnostics and surgery have led to shorter hospital stays and neglect of the patient's experience while in hospital. Most big city hospitals now resemble office buildings more than sunny rooms surrounded by gardens. In the United States there are only a very few small hospitals that meet the current criteria for having good gardens. These criteria are: window sills low enough so patients can see the gardens and not just the tops of trees from their beds; a regular programme to allow patients in wheelchairs access to the gardens; a green walking space for those recovering from one day or short stay surgery; a variety of open and closed spaces; and gardens for staff and visitors. A good hospital thus offers several gardens, some open and some enclosed, some for patients only, some shared with staff and visitors.

One American hospital that meets all these criteria is the Wausau Hospital Center in Wausau, Wisconsin. Several British hospitals fulfill most of the criteria but probably none satisfies all five. Among the best examples is West Dorset Hospital, Dorchester, which has a variety of excellent gardens and won the Astra arts award for the best art in British hospitals in 1990 for its bird garden, containing both craftwork and sympathetic planting: its window sills were deliberately kept to a height of 630 mm to give patients a view down into the courtyard gardens. The County Hospital in Lincoln recently turned its courtyard into a garden, with the aim that patients should maintain it. It has access from the day hospital, from the electroconvulsive therapy suite, and, for wheelchairs, from the corridor. The first floor day area, staff room, and wards also look down onto the garden, but alas the window sills are too high for patients to see the gardens from their beds.

The Edward Street Hospital, West Bromwich, has a series of enclosed gardens; some provide quiet sitting areas for patients and visitors, and one is a rehabilitation garden with different surfaces for patients to walk on and raised flower beds for patients to do their own planting. The Stoke City General Hospital, a nucleus design, has interesting courtyards landscaped like Japanese water gardens with floor to ceiling glazing for optimal views. There are garden sitting areas for staff; a children's play area is safely enclosed but with views out to the countryside; and a once marshy ravine to the south

of the hospital has been replanted by the Staffordshire trust for nature conservation.⁵

Inner city hospitals on tiny sites have more difficulties, but older city hospitals with courtyards, such as the Middlesex and St Bartholomew's have continued to encourage patients, staff, and visitors to use their gardens. St George's Hospital, a city hospital built in the 1970s, has a sculptured courtyard by artist Shelagh Wakely and external gardens, and phase 1 of the new Hammersmith Hospital has a roof courtyard garden with a water sculpture by William Pye, with wheelchair access and low window sills for easy visibility from patients' beds, as well as from the corridor and dayrooms.

Much of the lead in British thinking about hospital gardens has come from the Department of Health, which has emphasised the need for a good quality visual environment in hospitals. In its general introduction to health building, the department accepted advice to state boldly that hospitals should be beautiful as well as functional. A good looking building accompanied by pleasant landscaping improves morale of staff and patients and can be just as economical as an unattractive one. It is to be hoped that the Poor Law mentality which assumes that a barren dreariness befits an NHS building, and that an agreeable environment denotes extrava-

gance, is a thing of the past.⁶ More detailed advice on gardens is included in the recent health building note 45.⁷ As a result of such guidance the United Kingdom has taken the lead in showing concern for the patient's environment and is reinstating the use of gardens to help patients to restore their sense of well being.

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A role for medical angiologists?

Firstly, they will have to prove their worth

The European Working Group on Medical Angiology wants to develop the specialty of medical angiology.¹ What is this specialty, do we need it, and, crucially, will purchasers purchase it in the reformed NHS?

No one would dispute with the working group that disorders of the circulation, venous as well as arterial, are common, costly, and a burden on society. But this is not enough to justify a new medical specialty encompassing all diseases of the vascular system, irrespective of the organ affected, unless it improves the care of patients with coronary heart disease, stroke, peripheral vascular disease, and venous thromboembolism. Let us therefore consider these disorders in turn, at least from a British perspective, although I don't doubt the eventual need for a European perspective in all specialties as well as some agreement about what particular specialties are supposed to do.

The biggest impact on the prevention of arterial disease is likely to come from political action to reduce cigarette smoking, improve nutrition, and facilitate exercise in the whole population.² High risk patients (for example, those with angina, diabetes, and hypertension) usually have their vascular risk factors dealt with in general practice, where there is no direct role for a medical angiologist. Angiologists could, however, facilitate preventive strategies both in the community at large and in general practice. Such specialists might also provide clinics for particularly high risk patients in hospitals where none presently exists, although any impact on the incidence of disease would be small because most cases arise in patients who are at moderate risk.² Nonetheless, some patients would benefit.

The treatment of coronary heart disease is already organised by cardiologists and cardiac surgeons; much clinical and laboratory research is being done; and any improvement would almost certainly be seen in terms of increasing the numbers in these clinical specialties rather than introducing a new one. Of course, most symptomatic patients get most

help from general physicians and general practitioners, who refer them to specialised cardiac services when necessary, and this seems to work well. Cardiac units already provide imaging facilities and angioplasty.

Although stroke is treated haphazardly,³ many efforts are being made to improve this.^{4,5} Patients with stroke or transient ischaemic attack are probably best managed by neurologists with occasional help from vascular surgeons and neurosurgeons, as occurs in the Netherlands. Neurologists should be the best people to manage what is, after all, the most common serious neurological disorder, but there are not enough to do so in Britain and, perversely, many are not interested in doing so. In any event, British neurologists do not have adequate access to rehabilitation, day hospitals, and facilities for respite and long term care. On the other hand, geriatricians do have these facilities so that a comprehensive stroke service in Britain should probably be provided by a partnership between geriatricians and interested neurologists. No need for medical angiologists here.

At present, the management of peripheral vascular disease is almost completely in the hands of surgeons; they have no "medical" partners. Could physicians with a special interest in disorders of the peripheral vascular system, medical angiologists perhaps, help? Probably yes. They could take on the initial diagnostic work up and sort out the myriad of neurological, orthopaedic, rheumatological, psychological, and other causes of pain in the leg; orchestrate the medical management of peripheral vascular disease, which entails much more than just caring for the leg arteries; and bring in the vascular surgeons for the few patients who need surgery (very much in the way that neurologists work with vascular surgeons in the management of transient ischaemic attack). As a result, surgeons would be able to spend more time developing their surgical skills and techniques. Physicians would also, I suspect, be a little more forward than surgeons