

the allocation of teaching time in the medical curriculum.

Arterial conditions treated by vascular specialists threaten life or limb; they encompass carotid, thoracic, renal, mesenteric, aortic, pelvic, and upper limb and lower limb occlusive and aneurysmal disease. Vascular disease, including of course its cardiac and cerebral components, is by a huge margin the commonest cause of death and disability in all developed countries—far exceeding all cancers put together. In recent years there has been a progressive increase in vascular workloads, reflecting the needs of an aging population.

In the past three years, consultant surgeon posts in the United Kingdom advertised as requiring a vascular interest have exceeded all other general surgical subspecialties added together. Such is the demand that many vascular consultants have recently been appointed some time before they have achieved accreditation.

The management of venous disease is undergoing fundamental changes. It has long been neglected: witness the frequency of recurrence of varicose veins and leg ulceration. Chronic venous disease costs the NHS more than £400m a year.¹ If venous disorders are to be managed successfully and efficiently the facilities of the vascular laboratory, vascular radiology, and leg ulcer nurse specialists and the attention of surgeons with a special interest are required.

The recent working party report on vascular services in Scotland has recommended that vascular services should be centralised.² There are several reasons why this makes sense, but perhaps the most compelling relates to resources. To meet the profound changes taking place in the management of vascular disease, reorientation is required on the part of clinicians and health care planners alike. How can vascular services be resourced or strategically planned or research funded if there is no clear perception of the scope and care of vascular disease? The term peripheral vascular disease is long past its "sell by" date.

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Paternal irradiation and childhood leukaemia

EDITOR.—In 1990, Gardner *et al* reported that relatively high doses of ionising radiation measured by film badges worn by men while employed at the Sellafield nuclear installation before the conception of their children were statistically associated with the incidence of leukaemia among these children.¹ The authors suggested that this association was sufficient to account for the excess of childhood leukaemia in the village of Seascale, adjacent to Sellafield.

Since 1990 several other studies of paternal preconceptional irradiation have been reported.^{2,3} We have analysed the results of these studies, and the table compares the relative risk coefficients derived from linear relative risk models based on these datasets. Full details are given elsewhere.³

The association reported by Gardner *et al* is confined to children of the Sellafield workforce born in Seascale, whereas over 90% of children of Sellafield fathers were born outside Seascale.⁴ The relative risk coefficient for Seascale is statistically incompatible ($P < 0.01$) with all the other coefficients, including that for the rest of West Cumbria.³ The association is not found for doses due to internally deposited radionuclides or for external doses received shortly before conception,

Leukaemia relative risks per 100 mSv of cumulative paternal preconceptional dose derived from various datasets using a linear relative risk model

Dataset	Relative risk per 100 mSv (95% confidence interval)
Offspring of Sellafield workforce born in Seascale ²	36.04 (14.34 to 73.01)
Offspring of Sellafield workforce born elsewhere in West Cumbria ²	1.27 (0.51 to 3.36)
Offspring of Ontario radiation workforce ³	0.63 (<0.27 to 3.40)
Offspring of Scottish radiation workforce ³	<0.51 (<0.51 to 2.95)
Offspring of Hiroshima and Nagasaki A bomb survivors ³	<0.98 (<0.98 to 1.10)

nor does the association extend to other childhood cancers.² Furthermore, Kinlen has indicated that the paternal dose association is not sufficient to account for the excess cases in Seascale.⁵

We conclude that a causal interpretation of the association between paternal preconceptional irradiation and childhood leukaemia is untenable.³

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Preventing crime and violence

A population approach is needed

EDITOR.—Violence continues to be a cause of substantial ill health and emerging debate.^{1,2} The incidence of reported violent crime is increasing³ and results not only in appreciable mortality and morbidity but also psychological and economic costs to the community.

The response to violent crime has traditionally been through the criminal justice system and has focused on retribution and rehabilitation.³ More recently, violence has been recognised as a public health problem, and epidemiological techniques are being used in the development and implementation of preventive strategies.⁴

In addressing the problem of violence most effort has been focused on a small group of vulnerable people. This approach, termed the high risk approach, aims at reducing levels of violence in those at higher risk. Not only is it difficult to identify accurately those at highest risk, however, but most acts of violence will probably be committed by people outside these high risk groups.

Thus if efforts are restricted to the minority, most violent crime will not be prevented.

An alternative approach, the "population strategy," recognises that extreme violence reflects the range of behaviour and circumstances of society as a whole.⁵ This approach suggests that there is not a clear demarcation between those who will commit violence and those who will not but a continuum within a society that tends to follow a normal distribution. The extreme tail of the distribution is therefore a function of the society as a whole, and if that society could be shifted to the left the number of extreme incidents would diminish. Conceptualising violence in these terms suggests that societal measures aimed at reducing important influences such as poverty, alcohol consumption, access to weapons, and television violence are likely to reduce these acts.

It would be valuable to develop a measure that would help us describe the distributions of the nature and form of violent behaviour in populations. This would help in exploring the causes of violence, comparing societies, and measuring the success of interventions.

High risk approaches will continue to be necessary to help the most vulnerable people in our society, but to establish enduring change in the culture of violence in societies a broader, population based approach will be needed.

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Includes victims of domestic violence

EDITOR.—In the light of the increased awareness of violence as an important public health issue,¹ we wish to draw attention to the problem of domestic violence. This is a problem that doctors in Britain have been slow to address. In 1991 an estimated 530 000 incidents of domestic violence occurred in England and Wales; victims of domestic violence are more likely to sustain injuries than those involved in other violent incidents.²

Studies undertaken in the United States show that between 22% and 35% of women presenting in emergency departments are suffering from injuries or symptoms due to continuing abuse.³ In recognition of the seriousness of the problem the American Medical Association particularly focused on it in 1992, issuing diagnostic and treatment guidelines on domestic violence.⁴

Domestic violence and its consequences tend to continue over long periods. Early identification of victims is a key part of prevention, allowing appropriate advice and intervention to be offered, which may shorten the period over which abuse recurs. We should recognise that general practitioners and other members of the primary health care team, as well as staff of accident and emergency departments, have a particular responsibility to identify victims: guidelines may help in this, and their use has been shown to increase the numbers of women identified as victims.⁵

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