3. Organisation of vascular services

Imaging facilities >> Emergency patients

Many patients admitted as an emergency with a diagnosis of ruptured aortic aneurysm do not need any imaging before being transferred to the operating theatre. In fact when the diagnosis of a ruptured aneurysm is obvious from the clinical history and examination, any delay for further investigation may compromise the chances of a successful outcome. However, in other cases where the patient's haemodynamic status is acceptable and the diagnosis of ruptured aortic aneurysm is in doubt, imaging may be required. Clearly it is essential that facilities for radiological investigations are available 24 hours a day.

Table 2 shows the proportion of facilities that were available out of hours using data from all hospitals.

Table 2. Out of hours availability of different imaging facilities according to size of vascular unit

	Angiography	%	CT scanner	%	Interventional radiology	%	MRI scanner	%	Ultrasound	%
Large	29	64	36	78	27	61	15	34	29	62
Intermediate	46	46	85	82	41	42	25	26	74	70
Remote	5	38	11	69	6	50	5	36	11	69
Total	**80**	**51**	**132**	**80**	**74**	**48**	**45**	**29**	**114**	**67**

Percentages refer to the number of hospitals with the facilities available as a proportion of the total number of hospitals that replied to that particular question.

Whilst in four out of five hospitals that had a CT scanner it was possible to have a CT scan out of hours, only half of hospitals could organise out of hours angiography or interventional radiography, and in only one third was MRI scanning available out of hours. It is surprising how many hospitals are unable to provide a comprehensive range of imaging facilities out of hours. This obviously has implications for all patients admitted as emergencies. Given that a CT scan is usually the most important investigation for patients with an aortic aneurysm [3] it is disappointing that the proportion of CT scanners available 24 hours a day is not 100%. Some CT scanners are initially funded via cancer initiatives, but all hospitals admitting patients with aortic aneurysms should provide the resources for 24 hour working for all patients. Are patients told if the hospital to which they are being admitted does not provide a full range of imaging for emergency patients?

One reason for the poor provision of out of hours services in interventional radiology is the shortage of consultants. A survey was carried out by the Royal College of Radiologists Audit Office on behalf of the British Society of Interventional Radiologists in 1999 and 2000, covering the whole of the United Kingdom [4]. This identified 165 hospitals with surgical vascular services. At that time there were only 87 specialist vascular radiologists. Approximately half were single handed. Returns for this study showed that 33% of hospitals had an on-call rota for interventional radiology. In many hospitals interventional radiologists will participate in the general radiology on-call rota. If a patient requires an emergency interventional radiology procedure on a day when the on-call radiologist does not have interventional skills, the hospital depends on the goodwill of an interventional radiologist to come back into the hospital to provide the service.

The ability to provide out of hours imaging facilities depends on the size of the hospital. Table 2 shows that angiography, interventional radiology and MRI scanning were more likely to be available in large vascular units compared to intermediate or small units. However, even in large vascular units, many hospitals were unable to provide a satisfactory imaging service out of hours.

NCEPOD has no information as to why most hospitals could provide a satisfactory service to meet clinical need whereas others of a similar size could not.