

Should all images be reported?

The work of a consultant radiologist is absorbing; a combination of interpreting radiographic, computed tomography (CT) and magnetic resonance imaging (MRI) examinations, performing ultrasound studies, carrying out interventional procedures (most commonly drainages and biopsies), and taking a lead role in regular patient management conferences with speciality clinical teams.

But there is a snag. Presently, there are just over three consultant radiologists per 100000 people in the UK, compared with two or three times that number in most countries in the European Union. Furthermore, the number of imaging examinations/interventions carried out in England increased by 27% between 1990 and 1995 (Royal College of Radiologists, 1999a).

MANAGING THE WORKLOAD: MANPOWER MISMATCH

How can those working in the speciality — one which is at the very heart of effective acute hospital practice — meet the increasing expectations and obligations? Some of the usual prescriptions need to be put into perspective.

The financial resources that have been made available to train more UK specialists, including radiologists, have been restricted (despite a large number of young doctors wishing to train in radiology). Attempts to reduce the level of UK radiology requests (at 524 examinations per 1000 people in England per year) are unlikely to be successful given that this figure (Royal College of Radiologists, 1999a) is already the lowest in the developed world; rates elsewhere are often 20–50% higher and some reach 1000 examinations per year.

On the other hand, traditional working practices should be scrutinized. Need all images be reported by a radiologist? In 1976 Brindle addressed this very question. His proposals, with some minor editing, are paraphrased below.

THE 1976 BRINDLE PRESCRIPTION

Three groups of radiological studies can be identified:

Group I

Routine examinations from consultants who are competent to interpret the films without the assistance of a consultant radiologist.

Group II

Routine examinations for non-specialists, such as general practitioners or junior accident and emergency (A&E) doctors.

Group III

Special examinations and procedures specifically undertaken or controlled by the radiologist (e.g. ultrasound, CT, MRI and interventional procedures).

Brindle suggested that it would be in the patients' interests if the radiologist's time was not spent in the routine reporting of Group I examinations (i.e. those originating from hospital outpatient clinics and from the wards). Although Group II examinations requested by general practitioners must be reported, A&E reporting could be restricted to those cases which are interpreted by the A&E doctors as normal — it is the false negative diagnoses that the radiologist is seeking to correct. The overall time saved could be spent on Group III work.

A NOTE OF CAUTION

Some caution needs to be expressed in relation to this 1976 prescription. Take

the Group I examinations. First, it is a legal requirement that there be a clear clinical justification for each individual patient exposure to ionizing radiation (POPUMET Regulations, 1988).

How relaxed might that justification become if radiologists abdicate some aspects of the very effective gatekeeper role which is part of current reporting practice? Evidence from the USA (Radecki and Steele, 1990) relating, in part, to the self reporting of imaging examinations indicated that the number of radiology tests increased by 20% to 70% depending on the speciality. Careful monitoring of unnecessary examinations, through audit, would be essential.

Second, medical practice is becoming more complex. It is not to disparage non-radiologists when suggesting that some specialist skills in plain film assessment have decreased rather than increased since 1976. Delegation of reporting duties for outpatients (apart from fracture clinics) might well represent an abdication of clinical responsibility/prudence by passing on to others work that is sometimes difficult and sometimes outwith an individual's competence.

1999 MODIFICATIONS

Nevertheless, some modifications to the 1976 prescription would address these concerns. First, the responsibility for ensuring that there is a formal interpretation written in the patients' notes (i.e. of each radiographic examination) needs to be accepted and implemented by the referring clinician (POPUMET Regulations, 1988; Royal College of Radiologists, 1995).

Second, all fracture clinic films (rather than all those from outpatients) and all inpatient radiographs need not be reported by the radiologist. However, a radiologist should

report all other outpatient examinations. The difficult inpatient cases can be brought to the weekly speciality X-ray conference and may, of course, be discussed with a radiologist at any time during the day. Such a policy could reduce the radiologists' overall plain film reporting workload by approximately 30%.

This approach is the sort of rearrangement of tasks which would help to address the problem of the workload:manpower mismatch. It can be linked to a policy of skills mix where trained radiographers — adhering to strict protocols (Royal College of Radiologists, 1999b) — take on intravenous injections (intravenous urograms, CT, MRI), barium enemas and the limited reporting of some A&E

radiographs and/or some non-obstetric ultrasound examinations and/or some radionuclide studies.

DOES THIS SIT WELL WITH CLINICAL GOVERNANCE?

However, there emerges a 1999 conundrum. The present Government's reforms of the NHS (Department of Health, 1997) are firmly based on the concept of clinical governance. The essence of clinical governance is the maintenance and enhancement of the quality of services, which will be overseen by the Commission for Health Improvement (CHImp).

The non-reporting of 30% of radiographs by radiologists would not seem, at first glance, to represent an obvious quality initiative. On the other

hand, it may be that freeing up radiologist time in order to take on other workload responsibilities represents, in a broader sense, an overall increase in quality. Clearly, CHImp and others will have a view on this should mishaps occur. Similarly, in the context of clinical governance, individual specialists may choose to seek the extra support and protection that a written report from a radiologist affords to them and to their patients.

Undoubtedly, Brindle's 1976 prescription has a very real relevance in 1999. But the decision on how much of it should be implemented depends on the interpretation of the meaning of clinical governance as well as on local risk-benefit analyses. Nevertheless, the manpower:workload mismatch is not going to go away if we do not modify traditional working practices. **HM**

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KEY POINTS

- There is a manpower:workload mismatch in UK departments of clinical radiology.
- The UK has the fewest number of radiologists per 100 000 people in the developed world. The radiology workload in England increased by 27% between 1990 and 1995, and the increase has continued.
- Brindle (1976) proffered a prescription for the selective reporting of films which would release a radiologist from up to 40% of his/her reporting duties.
- For 1999, a more cautious suggestion (as compared with 1976) is made. This would reduce the radiologists' plain film reporting workload by up to 30%.
- Evidence suggests that the delegation of reporting duties to those who request plain film examinations may result in an increase in unnecessary radiography. Regular monitoring through audit is necessary.
- There is another risk. Individual trusts and individual specialists will need to consider whether the non-reporting of radiographs by radiologists sits easily with clinical governance and NHS quality requirements, and make a risk-benefit analysis as to whether the non-reporting of selected films will improve the overall quality of the service because it allows the radiologists to carry out other clinical work.

Brindle MJ (1976) Should we report every film? *Br J Radiol* **49**: 298-9

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Royal College of Radiologists (1999a) *Workload and Manpower in Clinical Radiology*. Royal College of Radiologists, London

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