The future of radiology and the private healthcare sector

Tim Lewis

Introduction

The views expressed in this paper are garnered from considerable experience in the National Health Service (NHS) in the United Kingdom (UK) as a consultant radiologist and clinical director in a large tertiary referral NHS trust, and from being a member of a limited liability partnership (LLP) for private practice and independently employed by an imaging company in the private sector. These views have also been coloured by working in both the state and the independent sector in Australia. Views expressed are personal and are not representative of any current or previous employer.

The British and the NHS

The British love the NHS. It represents a triumph of socialist medicine over the marketplace and has improved the health of the community, particularly the less affluent, immeasurably. But, even from the outset when it was created by Nye Bevan, it had to address conflicts with the medical establishment; these were overcome largely by 'stuffing their mouths with gold'. Bevan's success resulted in a universal healthcare system used by the vast majority of the British population, ensuring that they received healthcare 'free at the point of delivery' (or sort of, prescription and some other charges rather undermined that philosophy). This was possible in a large part because healthcare was not as expensive as it is now and treatment options for many diseases were very limited. However, the suggestion that the costs would reduce as the health of the community improved seems to have been hugely optimistic. Such naivety is not confined to the past, of course, and some of the more recent pronouncements on the funding of drugs and the healthcare service as a whole would also not stand up well to scrutiny. There is a fundamental dichotomy between what the nation wants from its health service and what it is prepared for the state to pay. Indeed, the major problem with healthcare in the UK is this imbalance, along with the 'sacred cow' status that has overtaken sensible thought on the future of the NHS. To cover up this imbalance, successive governments have introduced reviews and reorganisations of the service as substitutes for expensive action. The hidden cost of these changes is a considerable drain on the service, both in terms of actual costs of the reorganisation (often not known) and the consequent disruption and loss of confidence by those who provide the service. And, the usual end result is a return to the status quo of a few re-organisations previously.

Healthcare costs and controls

With time and research, western healthcare has become much more inclusive and vastly more expensive. Radiology is responsible for a large part of this through providing better but much more expensive diagnostics. The attempt to control healthcare spending by successive governments created a market for private diagnostics that introduced magnetic resonance imaging (MRI) particularly into mainstream clinical practice, filling the gap between public expectation and reality. The focus on patient expectations has resulted in a more patient friendly service and created competition. In turn, this competition has had the effect of relieving pressure on limited NHS services, so keeping NHS imaging departments afloat when funding was limited.

More recently, there have been dramatic changes in the way the government intends to deliver healthcare. A genuine competitive market, both within the private sector and between NHS hospitals has been introduced. Should anyone doubt this then they need only refer to the code of practice that has been established to support NHS hospitals to advertise.

Healthcare transformation?

At the same time as private healthcare providers have entered the market, the NHS has undergone a transformation of its information technology (IT) facilities, with all hospitals due to get picture archiving and communication systems (PACS), and a national electronic patient record being introduced. The challenges for radiology are to utilise these enhancements effectively while maintaining control of the patient pathway. These IT changes will also produce considerable challenges in the healthcare market.

It is also helpful to examine professional attitudes. When the NHS was first set up, it was to support the contract between the patient and his (or her) doctor that had existed since Hippocratic times. The patient, effectively, had a contract with the doctor to address his or her medical problems, a fact that is still reflected in the guidance from the General Medical Council (GMC). This expects every doctor to 'make the care of your patient your first concern'. The NHS, which provided the funding and equipment necessary, facilitated the delivery of this patient/doctor contract.

More recently, that contract has altered fundamentally. Advocates for the patient, the NHS Primary Care Trusts (PCT) have negotiated with service deliverers, predominantly the acute NHS Trusts, to treat patients. The patient's primary contract is with the family doctor who then negotiates with the secondary healthcare NHS trust to treat. The doctor in secondary care now becomes an agent for the NHS to deliver on its contract with the patient. The link between the patient and the doctor, often tenuous in the first place with regard to imaging in the NHS, has been completely broken. In reflecting this change, radiology examinations and reports have become more akin to 'cans of baked beans', to be contracted for nationally. It was this supermarket approach that resulted in the National Diagnostics Initiative waves 1 & 2 which, while achieving much in the short term, have raised as many questions and concerns as answers.

Radiologists: Parts in the healthcare machine

The most recent changes to healthcare delivery have resulted in the radiologist now being just another part of the healthcare 'machine'. An imaging department also requires clerical and administrative staff to receive the patient and handle the paperwork, technical staff to perform or assist with the examination, and radiologists to perform and/or interpret the studies. With skill-mix in the NHS, the technical/radiological relationship has become blurred for reasons as much to do with career enhancement and recruitment/retention of staff as to do with patient management. Imaging examinations can be divided into four groups:

- Non-invasive (no needle) imaging where the end point of the examination is clear; for example, a chest x-ray. More complex studies may also come into this group; for example, ultrasound, and computed tomography, or magnetic resonance imaging studies, where contrast agents are not required.
- Invasive studies where cover is needed from medically qualified staff; investigations involving the injection of iodinated contrast would fall into this category.
- Examinations that require expert input throughout; examples include angiography and interventional procedures.
- Studies that require expert interpretative skills above the general level such as functional magnetic resonance imaging (fMRI) examinations.

Many studies can be treated in isolation. So a chest radiograph with a request that reads 'shortness of breath, ? congestive cardiac failure' and is without previous history or images may be dealt with easily by any radiologist happy to interpret a chest x-ray. This interpretation can take place anywhere in the world, raising challenging questions about registration, insurance and reputation, along with standards of communication (not so much English but the language of radiological reports for use in the UK). Such reporting is not vulnerable to accusations that the interpreting radiologist does not know the referrer, or that he or she is not part of the clinical

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team. In more complex studies these factors may be of more significance. An imaging department is, however, about more than just getting the correct diagnosis. Not only must it issue accurate and timely reports but it should also have staff available for review of cases and discussion with clinicians. This requires expert staff within a department and, in consequence, requires sufficient expert staff for cover throughout, probably, the full 24/7 cycle. There is no possibility of moving functions that require direct interaction with patients but all others can be exported. And, on the basis of commercial management, this may well include consultant radiologists' posts.

Private radiology practice

Traditionally, private radiology has been a small player in the healthcare market. It has been organised on an individual patient basis with high cost/low volume metrics. Consultant radiologists that provide private radiology services have received a significant part of their income from a very small part of their work. This arises from the original consultant contract where 'maximum part-time' consultants could trade a reduction of 10 per cent of their salary for the right to perform unlimited private practice in their own time. Often, too, there was no change in their NHS working times which, in any event, were very loose; notionally seven 3 hour sessions per week, plus on-call for non teaching hospital consultants.
This imbalance maintained high unit costs for private work, reducing the demand. It also ensured that consultants could maintain an income that they thought appropriate within a reasonable working week. It was not, however, a stable system and the introduction of government reforms and targets for imaging have, effectively, ended this approach. The outsourcing of imaging and reporting has had a dramatic change in the unit cost of tests but, possibly, not for the incomes of radiologists. However, what it has done is to achieve a more balanced market where reimbursement within the private sector is not far out of balance with public sector work.

Where does this leave the radiologist?

British radiology remains firmly attached to the district general and teaching hospitals of the NHS. The current medical staffing contract is interpreted as allowing for work outside the NHS contracted hours, subject to various limitations, not all of which have been tested in law. In addition to the requirement to offer an 11th work session to the employing NHS Trust, there may be restrictions imposed relating to both conflict of interest (working against the interests of the primary employer) and the European Working Time Directive. Some of these restrictions are imposed centrally by the Department of Health (England), such as the additionality clause of phase 1 of the National Diagnostics Initiative and the lack of clarity over additionality in phase 2. Common sense will likely prevail over the boundaries of work but may take some time to emerge. It has been suggested, too, that NHS consultant radiologists working for a private healthcare or imaging organisation (or similar) that is seeking NHS contracts, may infringe on the conflict of interest rule.
While there is a confusing morass of different directives and interpretations, these will clear in time and lead to a much more open and fluid market for radiology. It is likely that the NHS, effectively the monopoly employer, will cease to have such control and that radiologists will see other markets for their skills. With the change in pension regulations coming in 2013, some of the attractiveness of the NHS as an employer for life (rather like the NHS providing a service from the cradle to the grave) will be lost. Radiologists will train within the state sector primarily but will then market their skills to the highest bidder.
The achievement of excellence in academic radiology spheres will require radiologists to remain within the state sector and the tertiary referral areas at present. but even this is likely to change with time.

Where is radiology going?

All of the above begs the question about where is radiology going. Radiology is at great risk of being lost in all but a few areas. In addition to the 'conventional' turf wars being fought out between different specialty groups; for example, cardiology v vascular intervention, the advances in imaging are making diagnostic images much easier to interpret, at least apparently. In the United States of America, neurologists have long since set up their own imaging centres, interpreting studies referred from themselves and there may well be a move to follow in these footsteps in the

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UK. More and more questions are likely to be asked as to where the radiologist adds value to the process. The conventional answer that 'radiologists are the only group who **really** understand the images' will be lost in the commercial pressure for lower cost services, except in areas of enlightened management. PACS now allows images to be exported anywhere in the world. Much of radiology requires no understanding of the subtle nuances of referrers and can be done by any appropriately trained radiologist. It is likely that UK registration and registerable qualifications will be necessary, but these have not proved an impediment to the National Diagnostics Initiative phase 1 schemes. The major bar has been user unhappiness, often related to a different style of reporting, and this is easily overcome. In reality, the UK market has been opened up to international competition and those radiologists practising from low cost of living areas will be at an advantage.

Will skill mix have an impact? Skill mix has come in to help support career development for radiographers and save money for NHS Trusts. In many cases, the issues have not been thoroughly thought through and resolved, leaving partially trained staff with interpretative work to do. The question of why the NHS trains radiologists (five years at medical school and seven years postgraduate study), then gives the work to radiographers (three years training and a post graduate qualification of at least a year) has not been fully answered.

Probably the question that most needs to be answered is, 'What is the added value of the radiologist?' In some areas the answer is nothing at all: those parts of radiology that are amenable to pattern recognition do not require in depth knowledge of physiology and pathology to interpret appropriately. In those cases, radiographer reporting seems eminently sensible. Indeed, it may even be superior to using a radiologist because it is cheaper and radiologists may get bored with pattern recognition level work and so make mistakes. It is noticeable, however, that private imaging networks have not fallen over themselves to use radiographers for reporting, and some market their reporting on quality grounds, using subspecialty radiologists to imply quality and attract more custom.

How, then do we move ahead? The division will be into those who perform studies on patients and those that don't. Those performing studies may well still have a turf battle to fight with other medical specialties but are unquestionably necessary for the patient's diagnosis. Interventionists should, therefore, be in a strong position and the move towards a much more hands on approach for radiology is necessary for its survival.

Subspecialties in radiology may also survive, but only by 'adding value'. In part, this will be by the extra specificity that a specialist radiologist can bring to a diagnosis but also by the 'rubber stamp' it endows and through which necessary medico-legal support will come. With increasing litigation in radiology, the interpretation by an expert will continue to carry weight, and this is likely to increase.

Radiologists will also gravitate towards formal partnerships, providing either specialist services or a whole range of services. These partnerships will then

be marketed towards the NHS as well as directly to the public, resulting in a further outsourcing of NHS work.
For the remainder of radiology, it really is up for grabs. If 'image acquisition and reporting service providers' with lower overheads can compete on an item of service basis with radiologists, those service providers will get the work. In addition to cost, intending service providers will have to show rapid turn around for reports, probably of less than 10 minutes, to address the growing 'one stop' philosophy for patient management. They will be available at the beck and call of multiple different centres that will post images for whoever is employed to interpret them. Time will be money and maintenance of accreditation will be at the radiologist's (always supposing it is radiologists undertaking the work) own expense, and time off will mean income lost. Somewhat more positively, such developments may well provide support for web based learning and competency assessments.
Within private radiology practice, 'quality' providers will emerge and these will, probably, fare better than the average district general type hospital in terms of competing for referrals and service provision. But, as with the state sector, (which may disappear entirely except as an insurance based system of commissioning), much of the work will be allocated on the basis of cost and turnaround times.
And what of self-referrals for imaging? Organisations are setting up to provide 'MOT' like services to the worried well on the premise that whole body imaging will demonstrate lesions early enough to allow cure. As the medical profession is not perfect, there will always be a place for self referral, to investigate cases where salient clinical signs and symptoms are overlooked and/or ignored by clinicians. However, these represent a different group from the 'worried well' who think that medicine has an answer to everything. These self referrals for MOT-like services represent nothing less than the transfer of money from the anxious to the rich, something that should be condemned by all the medical profession. Such organisations are unlikely to have a major impact on the delivery of radiology, although they may well provide a 'useful' niche for some individuals.

Probity and morality

There is a theme threaded throughout this discussion which reflects on the morals and probity of the medical profession. In a time of rapid change, many opportunities will present themselves to those who are enterprising and energetic; these will be looked on as threats by those of a more nervous disposition. However, in choosing what to do and how to proceed, doctors must reflect the position that patients' interests should come first.
Different health maintenance organisations, including the NHS, now look on clinicians much more as employees, even vassals, charged with doing the greater good for the organisation. They forget that, for doctors, there is a higher authority. Those who place 'Dr' in front of their names, accept the need to reflect primarily on the best interest of their patients, not their employers. While this can be uncomfortable, doctors must make it clear to their employers, whatever their hue, that failure to reflect primarily on the needs of patients may well result in having to defend their actions before the GMC, which has the power not only to take away their livelihood, but also any chance of making a living as a doctor until such time as the sanction is lifted.

Conclusion

To be successful, radiologists have to add something, whether it is a personal touch to patients or the quality of their reports. There is little future for the generalist in a market dominated by the availability of specialist expertise. Personal contacts will not sway referrers as their patients become wiser over the expected value of a radiologist's report. To survive, radiologists will have to remember their professional obligations and accept that they are part of a service industry where quality is measurable in different ways but always allows for comparison.

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