

stakeholders are invited to contribute to revisions of our processes and methods and encouraged to submit evidence on particular topics for consideration by the Institute's advisory bodies.

All NICE's clinical-guideline groups include at least two patients (or "service users"), except in the case of guidelines for children's illnesses, in which we include the parents of children with the condition in question. Because meeting with distinguished clinicians can be daunting, NICE provides participating service users with specific training for their role.

The Institute's stakeholders have been generally (though not uncritically) supportive. Despite a rocky beginning with the life-sciences industry and particularly the pharmaceutical industry, relations improved as it became clear that we supported the use of most new drugs but that health care systems globally can afford only cost-effective products.

Fourth, NICE has, from the outset, jealously guarded its independence from vested interests, whether government, the professions, patient organizations, or the life-sciences industries. Government ministers formally refer specific appraisal, clinical-guideline, and public health topics to the Institute for development. At first, Department of Health officials selected topics for approval by government ministers, but now NICE proposes topics for referral by ministers, and then guidance con-

tent becomes entirely the responsibility of the Institute and the relevant advisory body. Ministers do not attempt to influence NICE guidance and have never threatened to overturn any of NICE's advice.

All NICE guidance is developed by independent members of advisory bodies, who are drawn from the NHS and British universities. The Institute's board can suppress a piece of guidance that it believes to be flawed, but it has never had to exercise this option. From the outset, the Institute has had strict conflict-of-interest rules covering both its staff and advisory-body members.

NICE is now a permanent component of the British health care environment, having been reestablished on April 1, 2013, in legislation that also requires the Institute to develop guidelines and performance metrics for social services. This change, I hope, will help improve the integration of Britain's health care and social services, whose interactions have too often been dysfunctional. (With this addition to its remit, the Institute's name has been changed again, to the National Institute for Health and Care Excellence.)

NICE's experience may carry lessons for the United States, which has an abundance of the technical, scientific, and clinical skills needed to develop robust guidance for clinical practice — but which appears, at least to an outsider, to lack the political will

to ensure the provision of universal health care and to accept that in so doing it will have to set priorities. The Affordable Care Act takes a modest step in this direction, but the current level of expenditure on health care in the United States is unsustainable. If the United States is to meet the needs of all its citizens, especially in the face of an increasingly elderly population, it will someday have to take both clinical effectiveness and cost-effectiveness into account in determining the contents of its package of universal health care. Our experience in the United Kingdom shows that, though sometimes uncomfortable, it is possible.

Disclosure forms provided by the author are available with the full text of this article at NEJM.org.

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From Imaging Gatekeeper to Service Provider — A Transatlantic Journey

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In Britain, where I trained in surgery, residents feared radiologists. One radiologist was nick-

named "Dr. No," since his first response was always to deny requests for any imaging other

than a plain radiograph. We had no computerized order-entry system, so after rounds, the junior

doctor brought requests to the radiologist for discussion. It took flawless knowledge of the patient, a reasonable grounding in clinical medicine, and a certain stoicism to emerge unscathed from these discussions.

One never knew at what point the request would be denied. Once I requested an abdominal CT scan in a patient with classic symptoms and signs of bowel ischemia. The radiologist inquired about the serum lactate. Having anticipated this, I excitedly reported that it was markedly elevated. I thought I was about to be the first house officer to get Dr. No to approve a CT scan. He then asked how we would proceed if the scan was negative. Again, I had the answer: we would perform an exploratory laparotomy. Aha: the scan would not change the management — request denied. Sure enough, exploratory laparotomy revealed that several inches of the small bowel were nearly gangrenous.

Since imaging was a scarce commodity in the National Health Service (NHS), radiologists acted as gatekeepers. To get through the gate, clinicians had to be at the top of their game. To triage effectively, radiologists had to think like the referring physicians. Both sides pushed each other, and the net clinical acumen improved.

When I began a diagnostic-radiology residency in the United States, I was struck by both the abundance of CT scans, MRIs, and technologists and the fact that in nearly all requests for suspected pulmonary embolism (PE), the stated indication was “pulmonary-artery aneurysm.” The two phenomena turned out to be linked by a common thread: U.S. radiologists were service providers, not gatekeepers. “Aneurysm” was the first item in the drop-

down menu of indications for contrast-enhanced chest CT. The order-entry system was a phenotype of the service-provision mindset: the radiologist didn't need to know why PE was suspected — only that it was.

Any desire I had to become America's Dr. No was dispelled during my first overnight call. A resident called about a head CT and a CT of the pulmonary arteries in a patient with syncope, to exclude subarachnoid hemorrhage and PE, respectively. I didn't realize she wasn't soliciting permission for the studies but merely asking that I call her promptly with the results. Puzzled that the pathology couldn't be localized to one side of the clavicle, I asked what triggered suspicion for PE. What had the blood gases shown? The blood gases were not taken because a normal blood gas did not rule out PE. Both PE and stroke could present with syncope. No law said the patient couldn't have both.

The resident was clearly more adept at justifying the order than I was at blocking it. I relented, not least because in the time spent in discussion, my list of unread studies had doubled.

Thus, I gradually stopped asking about blood gases, D-dimers, or symptoms and became yet another service provider — a role that's strangely uplifting thanks to its nonconfrontational nature and the simplicity of being evaluated on the basis of volume, turnaround time, and pleasantries. And it's not without the occasional challenge — once, for instance, I was asked to perform a coronary CT in an intubated, ventilated patient. I didn't inquire why the study was so necessary that it couldn't wait until the patient was breathing spontaneously; my skills were sought, and I furnished them.

But the U.S. health care system is undergoing seismic changes. Utilization is being questioned, and overutilization of imaging is frowned upon: it leads to waste, unnecessary radiation, and undue anxiety about false positive results — thus, lower-quality care. Payment models are changing; value is being redefined. Can the system afford service-provider radiologists? Who will orchestrate the contrived march to scarcity of imaging and judiciously dispense the scarce resources?

Some observers hope that guidelines and evidence-based medicine will drive clinicians to more appropriate imaging utilization. In my experience, guidelines tend to lead to more, not less, imaging. The resident described above would have sought guidelines on concurrent stroke and PE in a patient with syncope; guidelines don't define the law of parsimony in terms of numerical probabilities. Nor do guidelines state the threshold of prior probability below which PE should not be considered — and any definable threshold would vary with age and coexisting conditions. Consider a hypothetical threshold of 2%. For it to be practically useful, objective clinical parameters would have to consistently place patients with suspected PE on one or the other side of the threshold, there would have to be no room for gaming, and when patients with a 1% likelihood of PE died from untreated thromboembolism, physicians who had adhered to the threshold would have to be shielded from liability.

Another strategy is educating clinicians about limited resources and opportunity costs. I have guarded optimism about the success of this endeavor — guarded because I don't encounter many clinicians who don't think their

patient is the most important patient in the hospital. Clinicians will do what it takes to meet their patients' needs.

That leaves radiologists as the natural choice for managing utilization. Such a shift will require two key changes. The more obvious barrier is the incentive system: there are no rewards for denying an imaging study — one loses a reimbursable exam and expends time in which other reimbursable studies can be read. But the bigger obstacle is the service-provision mindset. Radiologists don't wish to displease referring physicians, lest they take their business to someone who won't question their test-ordering ability.

Referring physicians may believe that radiologists, who generally haven't seen the patient, shouldn't question the appropriateness of clinical suspicion. But preauthorization — standard insurance-company practice for approving advanced imaging — involves decisions by personnel who aren't directly involved in the clinical consultation. Indeed, insurers could save the money that they pay third-party agents

to determine the appropriateness of imaging if they trusted radiologists to manage utilization.

Radiologists may resist gatekeeping because of the stigma attached to “rationing” in the United States. Even though the diagnostic pursuit of PE in an intubated patient with severe intracranial injuries may be futile, the radiologist sitting at the outpost of decision making may hesitate to say so and risk being labeled a “death panelist.” It will be harder for U.S. radiologists to be gatekeepers than it is for their NHS counterparts, simply because imaging is so abundant here — one can easily justify rationing of something that's truly scarce.

The emphasis on service provision, operations, and efficiency has pushed radiologists to the periphery of clinical decision making. To be effective gatekeepers, they will have to move to the center. They'll have to develop clinical-imaging conferences, act as imaging consultants, and conduct imaging rounds. Radiology leadership must provide incentives for these activities without compromising efficiency, by developing granular metrics for quality. Benchmarks will

have to be established for the acceptable proportion of negative studies. Bundled payments for accountable care organizations will offer a sentinel opportunity to face these challenges.

Some radiologists may hope that clinical decision-support systems will do the gatekeeping for them. It's ironic: the profession has great angst about its propensity to be commodified and outsourced, yet it may relinquish its last bastion of clinical involvement to software. But gatekeepers don't simply advise on the best imaging method; they question whether a given diagnosis should be suspected in the first place.

Whoever plays gatekeeper, all clinicians will have to exercise greater restraint in the use of imaging. Radiologists must decide whether to greet the ebb of imaging passively or by stepping forward to captain and manage a rational decline.

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Using Medicaid to Buy Private Health Insurance — The Great New Experiment?

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The Medicaid expansion is a cornerstone of the Affordable Care Act (ACA), but since the Supreme Court ruled in 2012 that states could opt out of expanding their Medicaid programs, resistance has been strong. With uncertain-to-dim prospects of adoption in roughly half of states, the Obama administration has moved to allow states to adopt a model whereby Medicaid funds could be

used to buy private health plans sold through the new health insurance exchanges.¹ Arkansas has enacted legislation to adopt such an expansion; other states, including Ohio, appear to be negotiating with the federal government over replacing the standard Medicaid approach with premium assistance.

It's clear why the White House is engaged in such a high-stakes

effort. Without the Medicaid expansion, the poorest Americans will remain uninsured, since subsidized coverage through the exchanges is available only for U.S. citizens with incomes above 100% of the federal poverty level (FPL). In many states, including Arkansas, existing Medicaid coverage for adults falls far short of this mark. For example, with the exception of a very limited demon-