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WHERE HAVE ALL THE CLINICIANS GONE?

The winter solstice has just passed and my freshly appointed juniors, as yet unfamiliar with my whims and foibles, eye me cautiously as we approach our first patient, a sprightly looking 72 year old lady. She views the white-coated entourage around her bed with tolerance and just a little apprehension. She had been admitted on the previous day at the request of her general practitioner for assessment of mild breathlessness on exertion and occasional palpitation during the preceding month. She had always been in good health, and had managed, more or less, to keep doctors at a distance throughout her longevity. The house physician's history was crisp and to the point, and a thorough examination demonstrating controlled atrial fibrillation, mild elevation of blood pressure, and a mid-systolic murmur in the aortic area, confirmed our impression that she was generally in quite good health for her years. The diagnoses were atrial fibrillation, mild hypertension, and aortic sclerosis, with mild congestive cardiac failure as a possible explanation for the breathlessness. All is going well. The history and examination cannot be faulted. The patient follows the bedside repartee with interest, and smiles in the assurance that her problems are not too serious; a pair of nurse's eyes twinkle mischievously at a randy student, and then suddenly all is spoilt. Our promising clinician has arrived at the investigations; he has listed and implemented for his tender charge the following: urinalysis, urine microscopy, urine culture and sensitivity, haemoglobin, ESR, blood film, white cell count and differential, serum B12 and folate, blood urea, serum creatinine, electrolytes, proteins, calcium and enzymes, alkaline phosphatase, chest X-ray, cardiac screening and echocardiography, and finally an ECG. There is only one thing that upsets me more than a long list of investigations and that is a long list of drugs. I charge into battle astride this well-ridden hobby-horse. Why so many ridiculous tests? I demand.

Urinalysis is a mandatory investigation in all patients, and the laboratory will do microscopy and culture studies anyway, so there can be little argument about that one, I am told. What is wrong with the nurse's ward urinalysis? I ask. Would it not suffice to proceed to microscopy and culture only if there were abnormalities on the standard urinalysis? The haematological investigations, I am informed, are part of routine investigation. This always upsets me. I deplore the use of the term "routine investigation". No investigation should be part of a routine. All investigations, however simple, cause the patient inconvenience, discomfort, and expense. Why bother with any haematological tests? I suggest. How easy it is to miss anaemia in this age group, particularly megaloblastic anaemia, suggests a well-read membership candidate. How easy indeed, especially if we do not use our eyes to decide if the patient is clinically anaemic. But, am I not aware how notoriously (a great word in this sort of discussion) unreliable are the clinical signs of anaemia? Why then do we not screen the entire population in this age group for megaloblastic anaemia if the problem is that prevalent? I ask.

The biochemical investigations, I learn, are indicated because of mild hypertension, and the alkaline phosphatase is a useful measurement in the elderly patient who may have undiagnosed Paget's disease of bone. True, I agree true, but, so what if our 72 year old patient does have mild hypertension and/or Paget's disease? And what of the chest X-ray? It has long been shown that the so-called routine chest X-ray is a waste of everybody's time and money. The group has all the answers; a chest X-ray, I am informed, would be of value in this case as an indication of cardiac size. Why, I plead, can we not use our fingers to localise the apex beat and to detect its character—a far more reliable guide to left ventricular hypertrophy than any chest X-ray? But no, there is worse to come. Cardiac screening and echocardiography will help, would indeed be most helpful, says an unruffled registrar, in confirming the diagnosis of aortic sclerosis, and excluding that of aortic stenosis. Whoever said anything about aortic stenosis? The pulse volume is normal; the aortic second sound is normal and there is no left ventricular hypertrophy; besides, the lady is 72 years old.

I finally accept the ECG as a valid investigation whilst telling us a little about the state of the myocardium, but I cannot accept the other tests. Students and doctors never have any idea of the cost of their investigatory endeavours. It is not their fault. They have simply never been told the price of investigations, or drugs or anything else in medicine for that matter. This little list of fairly modest investigations comes to about £70. I have chosen a simple case, one which is common in our wards, but this is the type of case which must collectively contribute enormously to our soaring medical costs. Take my reasoning further to blunderbuss radiological investigations for abdominal discomfort—barium meal, cholecystogram, intravenous pyelography and a bismuth enema—and the cost and discomfort to the patient a greatly increased.

Is it not time for us to turn back the clock? Most of us are trained to be competent clinicians, but we are afraid to rely on our clinical judgment. There is solace and security in investigatory medicine. Our clinical skills arophying from want of development. How often I have heard the teaching hospital adage that it is wiser to invest in gate than to miss a diagnosis, that this is the stuff of academic medicine on which depend the reputations of individuals and institutes. What nonsense! The good clinician knows the answer at the end of a thorough history and clinical examination; in fact, he usually makes the diagnosis at the end of the history. Only rarely does he have to resort to more than a few judiciously selected investigations. We are not lacking in clinical ability; it's just that we don't seem to have commonsense anymore.
Deceived by the data

"Where have all the clinicians gone?" asks Eoin O'Brien in his cogent assault on page 31 on the already profligate and still growing use of "routine investigations" in diagnosis. Although many doctors would agree with his conclusion that "only rarely does (the good clinician) have to resort to more than a few judiciously selected investigations", attempts to cast a detached and evaluating eye over medical technology are still regrettably the exception.

To decide which bits of technology can play a useful and cost effective role in diagnosis is one of the aims of the Harvard School of Public Health's Center for the Analysis of Health Practices. Its associate director for technology is Dr Herbert Sherman, a man whose own realisation of the extravagance of many a gee-whizz gadget cluttering up the consulting room dawned during the design of a fancy computer terminal for diagnosing simple conditions that can be adequately treated by paramedical staff. The computer, he decided, was unnecessary; the job could be done just as well—and far more cheaply—using old-fashioned printed questionnaires. And having, as it were, put himself out of one job, he'd found another: technology assessment.

As an engineer rather than a medic, Herbert Sherman not only reeks off a list of clever instruments of dubious value, but takes an understandable delight in the sometimes unconvincing attempts of their doctor-users to justify them. More seriously, he is worried that some exotic technologies are defeating their own ends simply by providing the clinician with too much information. Fetal heart monitoring, for example, can indicate fetal distress, so allowing the doctor to take pre-emptive action. But a study at the University of Vermont Hospital showed there had been no greater decline in infant mortality there than occurred over the same period in the rest of the state's hospitals—which don't use the fetal monitoring equipment. What was, however, apparent from the records of the Vermont University Hospital was a sharp rise in the number of caesarean sections. A controlled trial subsequently organised at Denver General Hospital suggested that doctors were over-reacting to the new data: having seen the wiggly line on the pen trace they felt they had to do something—anything. Justifying the consequent rise (by a factor of up to three) in the number of women deemed to need a caesarean section is, to say the least, difficult. And in the light of the Vermont results, the suspicion must be that no action was in fact necessary. Dr Sherman compares this state of affairs with the likely effects of giving a microscope to a competent machinist; the surface of his lathe work, till then seen by the man as satisfactorily smooth, will be exposed for the mess of tiny hills and bumps it truly is. The point is, of course, that such ultra-fine imperfections don't in practice matter.

As Eoin O'Brien says, there is "solace and security... in investigatory medicine". Sadly, it seems, there is also deception.