

Holby City it ain't

I want to tell you how it is with medicine, as Hemingway might have said. I want to tell you because it bothers me that our patients do not understand what they can and cannot expect from doctors, largely because we have never taken the trouble to explain. The same failure to understand is presumably responsible for the increasingly frequent outbursts of our scientifically illiterate political masters when something is deemed to have gone wrong in the NHS, and this public and political ignorance of things medical is compounded by inaccurate reporting of the issues by media that are more interested in getting a good story than in telling it how it is. Because, as far as most people are concerned, the process of diagnosis and treatment ought to be simple. A patient presents with symptoms and signs of disease. The doctor orders a series of tests, the results of which are either positive or negative, and then institutes the appropriate treatment. The right treatment makes you better, the wrong treatment fails to cure you, or makes things worse.

And sometimes, but not often, it really is like that. You are felled by a crunching tackle on the rugby field. You hear a crack, feel excruciating pain in your leg, and get carried off to casualty. The doctor listens to your story, and looks at your leg. It is bent, to use a technical term. He or she makes a provisional diagnosis of a fracture, orders the right investigation, an X-ray, and the diagnosis is confirmed. The right treatment is applied – straightening of the leg under anaesthetic followed by fixation of the fracture - and four months later, you are back on the rugby field. And that's fine; the trouble is that any departure from this pattern is seen as a failure, for which someone must be to blame. So, why is it not always that simple?

Firstly, most symptoms are not as unequivocal as those of a broken leg. Chest pain, for example, can be due to any one of a number of causes. The doctor will listen to your story, ask the appropriate questions, and examine you. He or she will form a working diagnosis, knowing that it might be the wrong one. Already, the doctor is playing a percentage game, using their knowledge and experience to choose the most likely cause

for the pain in your particular case. And of course, the uncertainty doesn't matter too much at this stage, because they will Do Tests, won't they?

And that's something else people don't understand; tests. The expectation of patients is that a clinical investigation, be it an X-ray, scan or blood test, will either be positive (they *have* got the disease in question) or negative (they haven't). Again, life isn't like that. Most test results lie on a spectrum. At one end, the patient almost certainly has the disease, at the other, they don't. In between is a grey area. What's more, no test is one hundred percent reliable. They will all produce some false negatives (the test is OK, but you *do* have the disease) and false positives (the test is positive, but you *don't* have the disease). The more sensitive the test, the fewer the false negatives that slip through the net, but there will then be a tendency to produce more false positives, so you have to strike a balance between these two undesirable outcomes when you decide where to place the cut-off between normal and abnormal. Misunderstanding of this fact reaches the highest levels of the health service. Frank Dobson, before he heard the call of Bow Bells, was outraged to hear that some women developed breast cancer despite attending for mammographic screening as part of the national programme. The cancers had clearly been 'missed', and this was intolerable. Frank is a good man, and I'm sure the outrage was genuine, but he just doesn't understand. We know that in the best centres, with the best equipment and with radiologists who have undergone special training in mammographic interpretation and whose performance is subjected to regular audit, about 15% of breast cancers will not be detected on mammography. Some were there, but not visible; some will have been seen, but judged to be non-cancerous; a few will be genuine 'misses' which, with the benefit of hindsight, could have been picked up. But this is the half-full/half-empty argument. So 15% of early tumours will escape undetected - that means that 85% *are* being discovered and treated, long before they would have formed a lump that the patient could feel, and hopefully before they have spread and become untreatable. And yet every time a patient develops cancer despite going for regular screening, it is seen as a failure of the system and, in particular, of the radiologist who must have 'missed' it.

And let's assume we have reached the right diagnosis. Even then, our problems are not over. There will be a range of treatments available, and again, none of them (well, hardly any) will be perfect, either because they sometimes fail to work or, especially in the case of drug treatment, because they have unwanted effects. That's right, 'side effects'. Let's be clear; there is no such thing as a side effect. A drug is a chemical that we introduce into our bodies. Any such chemical will have a number of effects, some of them welcome, others less so. Just as 'weed' is a relative concept - a plant in the wrong place - so a 'side effect' is an effect which is not needed in that patient at that time. The benefits of the drug must be balanced against the possibility of unwanted effects - again, you play the percentages. And even the *desired* effect of a drug may cause problems. For example, if a patient suffers from a pulmonary embolus, where a clot forms in the veins of the leg or pelvis and then breaks off and whistles through the heart and out into the lungs, the appropriate treatment (assuming the initial episode is not fatal) is with an anticoagulant, to reduce the ability of the blood to clot, and help to prevent any extension of the embolus. The inevitable downside of this interference with the normal clotting mechanism is the possibility of bleeding, which may require hospitalization and which, in rare cases, may even be fatal. It's that percentage game again. If the risk of dying from the pulmonary embolus is, say, 25%, and the risk of dying from the anticoagulant treatment is 0.2%, you don't need to have enjoyed a misspent youth in betting shops to know where to put your money. So, if you are unfortunate enough firstly to suffer a pulmonary embolus, and then to die of the treatment, it doesn't mean that the treatment was wrong. It just means that the fates, which resolutely prevented you from winning the National Lottery in life, have rained on your parade again during your final illness. And yet, to read the press reports you would think that malign doctors routinely and deliberately set out to poison their unfortunate patients. Well OK, a few do, but most of us are on your side.

Does all this matter? If I was just asking everyone to be nicer to doctors, then perhaps it wouldn't, but lack of understanding does affect the quality of care that we can give. More and more, the healing process is seen as a co-operative one, the patient and doctor working together. We are rightly exhorted to make an effort to understand patients and

work with them rather than on them, but this has to be a two-way process if it is to have the desired effect. And if you want a concrete result of the current level of ignorance concerning the diagnostic process, the future of breast screening in the UK is now under threat due to an understandable lack of radiologists willing to put their heads above the parapet and get involved in this demanding and thankless work. While no-one objects to being taken to task for genuine mistakes, currently they are being pilloried for perceived deficiencies which are in reality an expected and inescapable feature of any screening programme.

So, I'm not denying that doctors sometimes make mistakes. What I am saying is that the process of diagnosing and treating disease is not as simple as it is often made out to be, and unless the public understand the limitations as well as the exciting possibilities of modern medicine, the outcome of all our expenditure on healthcare will continue to be compromised. Oh, and by the way, if all this talk of percentage games sounds like doctors playing God (something they stopped us doing around the mid eighties), it hopefully goes without saying that, except where the odds for or against a particular line of treatment are overwhelming, the patient should be actively involved in the decision-making process.