

Editorial

Quaerere Verum

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Quaerere Verum – to seek the truth – is perhaps best known in Northern Ireland as the motto of the Royal Belfast Academical Institution¹, the independent boys' grammar school where Belfast Medical School had its first home until the establishment of Queen's College, later Queen's University, in 1849². It is a quotation from one of Horace's epistles, and is more fully *curvo dinoscere rectum atque inter silvas academi quaerere verum* – to distinguish the straight from the crooked, and among the forests of learning (or 'groves of academia' as it is wont to be translated) to seek the truth³. The search for truth has been an obsession of most world religions, philosophies, legal systems and science over the last 5000 years and remains at the heart of medicine in general and every patient consultation in particular.

Pontius Pilate's question to Jesus Christ "What is Truth?"⁴ summarises the search for meaning in life which drives much religious inquiry (Christ had already declared 'I am the Truth'⁵, and yet in recent times the idea of objective truth itself has oddly come under attack from all angles. The trope that there can be 'my truth' and 'your truth' is often heard in celebrity interviews, and the phrase 'alternative facts' was introduced to mainstream attention by a dispute over the number of people attending the presidential inauguration of Donald J Trump in the USA in 2017⁶. Can there be more than one truth? Can there be alternative facts?

In the clinic, surgery or operating theatre, it would appear not. The patient may feel pain in the shoulder tip, but if the truth is that it is referred from disease of the gallbladder, then injecting the shoulder will not help no matter how much the patient believes that the shoulder is the problem. Many hypotheses conceived in the gloaming are exposed by the bright light of the double-blind randomised control trial. Our Victorian forebearers believed that everything could be observed, described and tested, and that science could eventually conquer most problems. Patients have always liked a clear diagnosis, a label for their symptoms, a foe to fight.

Strangely though, the further we go in science and medicine, the more hazy the idea of absolute truth becomes. No sensible doctor will ever give a patient a 100% guarantee of any outcome (except perhaps the ultimate outcome) and patients now expect to hear "there will a 4 in 10 chance of feeling better from this procedure, a 4 in 10 chance of no change, and a 2 in 10 chance of getting worse" or similar offering. This is of course 'the truth' in an objective sense, but it is not the certainty which in the past patients expected.

It does however represent the truth in a much more honest way than the internet charlatan adumbrating '100%' success. But it also depends on a degree of health literacy, and health numeracy, which might not always exist.

And yet perhaps this is the way forward. In my own specialty, the idea of giving a patient a diagnosis of 'osteoporosis' based on a DEXA scan, and prescribing on that basis alone, has moved on to the calculation of a 'fracture risk' using the FRAX algorithm⁷, and presenting to the patient, for example "a 35% chance of a major fracture in the next 10 years" on which to base management choices, regardless of what the exact bone mineral density is shown by the DEXA scan. The truth might be that not everyone who has crossed the osteoporosis line on DEXA needs medicine just yet, but that many still on the osteopenia side would benefit from some of the strongest therapies available. The truth is complicated, but remains the truth. Is it too far to stretch the analogy, that the best way to improve local health services might be to close a failing local service, and improve access to a better service elsewhere? Is the best way to reduce pressures on secondary care to increase funding for primary care? What indeed is truth?

The scientist, to confuse things further, might also point out that the further we travel into the world of quantum physics, the more we realise that nothing is really certain. The idea of an atom, first coined by the Greek philosopher Leucippus in the 5th century BC (from a-tomos, not split)⁸ has long since given way to a host of particles including neutrinos, charm quarks and the Higgs Boson⁹. But one of the fundamental discoveries of recent years has been the concept that none of these particles are really knowable. From the famous double slit experiment¹⁰, where the beam of light behaves differently depending on how the experiment is set up, as if the light almost knows which outcome the scientist desires, we now realise that any observation – shining light, exposing to radiation – changes the particle itself. We can only give percentages describing where a particle might be found, or how much energy it might have, known as its wavefunction¹¹. In the quantum world, which underlies all the observed universe and the direct effects of which are now visible in biological systems¹², is anything truly knowable? Is there any truth?

All this seems a long way away from my clinic tomorrow morning, or the decision on how to fund the health service. But just as the quantum particle can be in two places at once (or can it?) so the doctor must try to present the patient with a

trustworthy, evidence based reliable truth, while maintaining the knowledge that Fate is a capricious mistress, that no outcome can be guaranteed, and that every decision is, in the end, a game of percentages.

Is there therefore such a thing as absolute truth? I am perhaps old-fashioned, but I believe that in terms of religious belief, or in philosophy if you prefer, there is Truth, and the search for truth is something to which we must apply ourselves. In a world of your truth and my truth, lived experience and alternative facts, the doctor must remain, for the patient, someone who tells the truth. The truth may be that the outcome is uncertain, but that will be a lot more truthful than the snake oil seller who promises a cure. The truth may be that we just don't know, but here is what we have tried to find out by honest scientific experiment and fair-minded consideration. The truth might even be that we are sorry, we have got it wrong, we should have done better. A Duty of Candour¹³ is a very clear example of truth.

Ultimately, the doctor must be seen as a disciple of Truth. He or she must always be seen as a person of integrity and honesty, who prizes fairness and equality. Who no matter how difficult and contradictory the task may at times appear, searches among the groves of academia and remains a seeker after truth.

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