

## OCCAM'S RAZOR

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Rummaging through a file of old clippings in search of a topic, we came across an editorial with the intriguing title of "Occam's Razor." It appeared several years ago in *Medical Tribune*, and it dealt with the discriminate, ritualistic use of laboratory studies. It is reproduced here almost in its entirety.

“Sigmund Wilens, a professor of pathology and chief of a hospital laboratory service, makes a plea for moderation in ordering laboratory studies in a recent issue of Harper's Magazine. It is addressed, we gather, to interns and residents; the sermon, we suspect, was preached from the wrong pulpit, since the readership of the magazine is primarily nonmedical. But the sermon is a good one, and we hasten to say Amen.

“According to Wilens, the average patient in his hospital undergoes about forty assorted tests, of which only a dozen perhaps are necessary for proper diagnosis and treatment. Seventy percent of the procedures are thus unnecessary and probably unwarranted. We have been told of a chart review in another hospital revealing that one patient had his blood drawn daily for five days running and the serum examined for albumin and globulin. It may be that we are doing the resident an injustice in wondering what esoteric reason there may have been for these repeated studies and, instead, we should be admiring his restraint. After all, he did not ask for electrophoretic determinations and paper chromatography as well.

“Wilens reflects on the time that many of us remember when interns and residents had to do a good part of their own laboratory work. It is remarkable what judicious restraint they exercised in ordering tests in those long-forgotten days.

In my view, many of the tests done today have become a meaningless ritual, no more valuable than the incantations of African witch doctors prancing about the hut of a dying native.

“Tests are ritualistic if they are performed reasonably. And aside from cost, they throw a burden on the laboratory where the accuracy must fall as the number of procedures approaches and exceeds a given limit. But above all, unwarranted tests are an affront to the science and art of medicine and to the elegance of its practice.”

Today, and for at least the last ten years, the ordinary patient being admitted to any hospital is often subjected to an increasing and inordinate number of expensive and useless testing procedures. Routine admission orders of many physicians include X-rays, cardiograms, blood studies, scans and one or more of innumerable chemical surveys and profiles. These are in addition to the usual blood counts, urinalyses and whatever else the individual hospital and laboratory might consider as essential requirements. Like taxes and government spending programs, the tendency is never to

retreat but always to add on more and more.

An excuse given for all this rigmarole is that modern automotive techniques make it just as easy and more economical (for whom?) to run a battery of seventeen tests as one or two, is a flimsy one. Just as flimsy is the reasoning that in accumulating this mass of extraneous data, one might just possibly turn up some entirely unsuspected abnormality. However, the real reason in most cases is unwillingness on the part of a new style physician to assume responsibility for his admission diagnosis. And behind the reason, in addition to intellectual laziness, is the prevailing fear that should something unsuspected not be recorded in routine workup, he might be damned for incompleteness or liable for malpractice.

William of Occam, an English schoolman and Franciscan, is credited with being the originator of theological skepticism. An Oxford graduate and Bible lecturer who was later accused of heresy, he became a controversial 14th Century figure, a forerunner of Martin Luther in the great contest between Popes and Kings. As a logician, his most famous doctrine, the law of parsimony, was known as Occam's razor: "Beings (or things) ought not to be multiplied except out of necessity."

And the *Tribune* editorial concludes: "Neither should laboratory tests; when ordered, they should be necessary."

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