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linked to the presence of registered nurses.³ Contemporaneously, the literature is replete with percentage estimates of the amount of time nurses spend on low level basic tasks. It is believed that increasing the number of health care assistants would free nurses up to spend more time in direct patient care with the concomitant improvements in quality and safety. It is ironic therefore that, due to inducting, training and supervising the increasing number of health care assistants, the role that has been introduced to free up nursing time is actually consuming nursing time.

The junior doctors' hours initiative and the European Working Time Directive mean that nurses are being asked to take on roles that were once the remit of doctors. Wanless⁴ also recognised that workload might be shifted from doctors to nurses, and from nurses to health care assistants. This "role drift" is not new and not unique to nursing; allied health professionals, pharmacists and dentists are delegating what were previous core duties to assistants or technicians. Unfortunately "role drift" often occurs in an ad hoc fashion and may exceed its original scope.

Health care assistants undertake a number of duties previously carried out by nurses. A sample from a very long list includes catheter care, wound dressing, venepuncture, formulating patient care plans, setting up and monitoring diagnostic machines, setting up infusion feeds, giving injections, taking charge of shifts, monitoring use of cardiotocograph machines, providing advice on parenting skills and breast feeding. According to the literature, much of this work is unsupervised. Because of their increasing numbers (estimated to be over half a million in the UK), and hence visibility in the clinical setting, health care assistants are also involved more in student learning.

Despite the fact that they are at the front line in providing care, there is no statutory duty for health care assistants to have any training. Invariably, such training is considered to be the responsibility of their employing organisation and this has led to informal and non-standardised training programmes. While national vocational qualifications (NVQs) were introduced in the UK in an attempt to standardise the training of health care assistants, their introduction has not been widespread. This means that their role often varies depending upon the country and the clinical area in which the person is employed. This lack of standardisation of their role is a potential threat to safety and quality.

Attempts have been made to develop skills, experience, and career ladders for health care assistants. While such recognition is laudable, it is still the case that many remain unlicensed and unregulated. There is no system in place whereby a health care assistant's criminal record or level of competence can be checked. There have been some well publicised cases where patients have been subjected to abuse at the hands of health care assistants who were dismissed from their work and started employment in another setting shortly afterwards. Unlike most health professionals, there are no mechanisms in place to alert the new employer to past offences. There have also been reports that some nurses were removed from the nursing register and began working as health care assistants, particularly in the nursing home sector.

There are proposals for extending regulation to those staff who have a direct impact on patients. Meanwhile, within this climate of regulation uncertainty, many nurses depend vicariously on health care assistants to deliver unsupervised direct patient care without being certain of the safety or quality of such care. According to their Code of

Professional Conduct, nurses should not delegate duties to health care assistants if they are concerned that the care undertaken will not be up to the standard expected by a nurse who would normally undertake the task. However, it is impossible to ensure delegation is appropriate if roles are not clearly defined and training is ad hoc. If nurses are under pressure, they may allow health care assistants to carry out unsupervised tasks they would not otherwise consider, which could result in patients being put at risk.

In a climate of a global shortage of registered nurses and demands for them to embrace a "role drift" to medical duties, there is an increasing reliance on health care assistants to fill the gaps in care. The majority of health care assistants are caring and conscientious individuals who are often pressurised to go beyond their level of competence to perform duties for which they are not qualified—potentially endangering patients. The health care assistants themselves are powerless, waiting on policymakers to sort out the mess while they do their best in an unenviable situation.

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Correspondence to: Professor H P McKenna, Faculty of Life and Health Sciences, School of Health Sciences Nursing, School of Health Sciences, University of Ulster, Jordanstown BT37 0QB, UK; hp.mckenna@ulst.ac.uk

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Medical decision making

Researching doctors' decisions

J Dowie

Description without prescription is like diagnosis without treatment

Why bother trying to discover how clinicians make decisions? Would it really make any

difference to the quality of care if we knew more about their decision making processes? Is there any basis for the

conventional assumption that it would make a significant difference, and in the right direction?

Probably not. During the three decades since the pioneering work of Elstein *et al*,¹ numerous studies of the decision making behaviour of clinicians—and, indeed, professionals in many fields—have yielded only one relevant finding. Insofar as we can make inferences about how they decide what to do by observing their behaviour or interrogating them, their decisions and decision processes vary enormously. Even when researchers are able to come

up with generalisations about the diagnostic or therapeutic processes of practitioners, these are often weakly supported and/or highly restricted in their coverage. Above all, they are analytically vague. This is not surprising because, even though some explicitly analytical reasoning is usually reported by practitioners, the expertise applied in professional decision making appears to be substantially intuitive, involving significant amounts of either intuitive pattern recognition or intuitive regression across “multiple fallible indicators”.² The disappointing results from the vast amounts of money and effort put into developing “expert systems” of the production rule (“if-then”) sort have merely confirmed that much of the time experts literally do not know what they are doing. This does not, of course, imply that what they are doing is not appropriate and may indeed be optimal. What it does mean is that even skilled “knowledge engineers” cannot extract the inaccessible elements of expertise for use in either practice guidelines or professional training.

Given the undoubted existence and significance of intuitive expertise, what is the point of attempting to describe the decisional behaviour of doctors? Setting aside the aim of acquiring knowledge for its own sake, which justifies the interest of the academic psychologist, does descriptive theorising and empirical research without an explicit prescriptive standard have any practical use for either practitioner decision making or professional education? Why spend any time on descriptive theorising unless one knows what is the best decision or best decision process, or both? Without a prescriptive basis, the use of descriptive results in improving the quality of care is zero and this is true whether the adopted prescriptive basis is decision analysis, the practice of some person or some group defined as best decision practice, or any other criterion.

It is, of course, methodologically imperative that the prescriptive basis be defined before any research study. Otherwise one will simply be defining the prescriptive as what happens: this is the way doctors *do* make decisions, therefore this is the way they *should* make decisions. Alternatively, one will end up simply pointing out the

existence of variation, in itself of no practical use except insofar as it acts as a stimulus to identifying the necessary prescriptive basis.³

If one does have an accepted prescriptive basis for quality care, why not just apply it and teach it to the extent either is possible? Forget the descriptive challenge except as an aid in determining the most effective way to identify the obstacles to implementing the prescriptive.

But there is a major difficulty lurking here—one that only an explicitly analytical prescriptive standard, such as that offered by decision analysis, satisfactorily exposes. Many studies of practitioner decision making which seek to evaluate the quality of decisions (either explicitly or implicitly) fail to recognise, or sufficiently emphasise, two things. Firstly, that there can be no such things as a gold standard verdict on management decisions of the sort that is possible on diagnostic judgements. Decisions involve value judgements as well as probability judgements and the prescriptive bases of the two types are very different, if indeed one exists for value judgements. Secondly, that any evaluation of a decision by a prescriptive standard must logically be on an *ex ante* basis. One cannot sensibly evaluate a decision by its *ex post* outcome, as is often suggested.

One can certainly set up a prescriptive standard against which to evaluate an *ex ante* probability judgement offered as to whether this patient has appendicitis or this child has been abused. But unless one can also set up a gold standard on the *value* side of the decision, which will involve establishing the relative value/disutility to be assigned (*ex ante*) to the false positive and false negative errors always possible under irreducible uncertainty, one cannot evaluate *the decision*. In order to evaluate the decision one must be able to identify what the best one was in this particular case, and this necessitates identifying the best available probabilities and most appropriate value judgements—in both cases at the moment of decision. Evaluation of decisions is therefore contingent on agreement on the values and preferences regarded as the appropriate ones at that moment. Ethically, these should be those of the

owner(s) of the decision—the patient in the private clinical situation or several constituencies in the public health and health services. If there is insufficient agreement on these—and some variation in values may be consistent with the same choice of action—no agreed evaluation of the quality of a decision will be possible.

Why the *ex ante* basis? Under uncertainty it is possible that the best decision will produce the worst outcome and vice versa. One can obviously establish, by an *ex post* gold standard procedure, whether this patient actually had appendicitis or whether this child had actually been abused. (The latter example illustrates the difficulty of establishing 24 carat gold standard verdicts or, in many cases, ones of very few carats.) But while the judgement/*ex post* outcome observation in this case can be added to the database for future decisions—improving the assessments of the sensitivity and specificity of the professional concerned—it cannot, by definition, change the evidence that was available at the time the original decision was made. It is therefore irrelevant to the evaluation of that decision. (The existence of a treatment effect, as in the ventilation case investigated by Kostopoulou and Wildman,³ is a serious problem for the development of the evidential database.) Equally irrelevant is the *experienced* utility or disutility of the actual outcome, as opposed to the anticipated utility or disutility of the possible outcomes at the moment of the decision.

Description without prescription is as useful as diagnosis without treatment.

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Correspondence to: Professor J Dowie, Public Health and Policy Department, London School of Hygiene and Tropical Medicine, London WC1E 7HT, UK; jack.dowie@lshtm.ac.uk

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