



Medical Advisory Service

Occupational and Environmental Medicine, Public Health, and Toxicology Consultants

Clinical Guidelines

Guidotti's Guides © Tee L. Guidotti, 2009

Occupational medicine will rely increasingly on QA/QC and CQI measures in the future as workers' compensation and managed care place increase emphasis on quality assurance. Such guidelines are now, together with medical education, the single most important means of implementing evidence-based medicine.

Clinical guidelines are protocols or specific guidance to managing defined medical problems, reflecting best practices and a process that adds value through critical evaluation and integration of evidence. Guidelines are intended to lead to better outcomes at predictable costs, which may or may not be lower costs initially but which by resulting in better outcomes reduce the total cost and burden over the duration of the case and reduce the risk of disability.

The objective of clinical guidelines can be summarized in a popular formulation:

- Right care
- Right time
- Right hands
- Right cost

Clinical guidelines are prescriptive in the sense that they outline what should normally be done in the majority of cases. However, acceptable guidelines specify the features of the patients to whom they apply and are not intended to deal with multiple diagnoses that interfere with management, complicated cases, incompatible treatment priorities, and special populations (such as immunodeficient patients or the elderly). As a result, their usefulness depends on the type of practice. For example, clinical guidelines are easy to follow and can be applied to most cases without much modification in a typical low-risk family medicine practice but often have to be modified or adapted in a specialty internal medicine practice, particularly where the patients are elderly. Guidelines work especially well in occupational medicine. In a working population, especially one that has been pre-screened for fitness for duty, difficult cases are less common than in the general population and so clinical guidelines are more likely to apply to the majority of cases seen in practice.

In addition to superior documentation and guidance toward evidence-best medicine, clinical guidelines have many practical advantages for clinical practice. They reduce variations in practice and outcomes, making costs and estimated return to work more predictable. They protect patient safety because concerns over misadventures and untoward events are factored into the guideline using the best available evidence. Because they are prescriptive in nature, providing detailed guidance on what to do, they prevent medical errors of omissions. They lend themselves easily to decision-support tools, which can be built into software and periodically updated in healthcare management programs.

Guidelines are also valuable in ensuring consistency in repetitive or stereotyped evaluations in occupational medicine. For example, there are many reasons why one periodic health evaluation or a fitness-for-duty evaluation for an employee in one occupation should be *identical* to that of



another employee in the same occupation and working group: to ensure that nothing is overlooked, to be fair from one case to another in assessing disability, to conform to standards, and to ensure that cases are consistent when the service is evaluated.

Because clinical guidelines are based on protocols and lend themselves to checklists, they result in better documentation, especially to justify deviation. When guidelines do not apply to a particular patient who may, for example, have multiple problems that interfere with the usual best treatment, the physician is expected to document the reasons why the guideline does not apply and why a special treatment plan is preferred. This greatly improves the quality of information in the medical record.

Finally, guidelines are extremely useful in guiding physicians in the provision of care for conditions that are unusual or unfamiliar to them. This applies to most of the serious occupational toxicology issues that confront the oil and gas industry, which are individually rare but potentially lethal or disabling. (These include hydrogen sulfide toxicity and hydrofluoric acid burns, both of which are unfamiliar to almost all physicians outside the industries in which they occur.) Guidelines are intended to ensure that these problems are handled correctly, the first time, by persons without prior experience or time to look proper treatment up in a book.

Many physicians do not like guidelines because they reduce the scope of the physician to make decisions and apply judgment. However, they also reduce the chance that a physician will make a mistake. Studies have demonstrated clearly that on average clinical guidelines result in better care and better outcomes than letting physicians treat each case however they wish. There are many situations in medicine that call for balancing difficult treatment decisions, being bold, and introducing innovation in medical care. They rarely occur within the scope of practice in which occupational medicine operates, and when they do occur deviations from the guidelines should be expected and well documented. The challenges facing the occupational medicine practitioner relate common problems that they handle, which are usually similar to medical management in non-occupational settings, and infrequent but potentially devastating events that must be handled correctly by others but with occupational medicine guidance, such as rare toxicity cases. Therefore preserving physician autonomy in making clinical decisions is much less important in the occupational medicine context than ensuring the best and most consistent results.

Guideline development requires a massive investment in time and energy on the part of many expert clinicians, usually from many specialties. Wherever possible, clinical guidelines should be adopted from authoritative sources rather than developed anew. This is to assure insofar as is possible that the guidelines represents global best practices, not just local practice, have been thoroughly reviewed by recognized experts without bias, without cutting corners, and are updated as required.