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What Is Professionalism?

In reading the Special Article in the August 8/22, 2011, issue of the *Archives*, with the subtitle “Meeting the Responsibility of Professionalism” it appeared to me that this was a subject of quality performance.¹ As defined in the dictionary, professionalism is the conduct, aims, or qualities that characterize or mark a profession or a professional person. General rules of behavior apply to all professions. In medicine these qualities are particularly compelling because much of our fees involve outside organizations including the federal government. A relevant article was recently published addressing this subject as well as health care reform, of vital interest to both our profession and the public.² This bill has now been passed but is subject to court challenges. In my view, professionalism for a physician means placing the interests of the patient ahead of his or her own interests, including financial interests. Many individual physicians support this bill, but in my opinion medical professional organizations are not enthusiastic about or in support of cost-cutting measures that will affect their income.

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In reply

Dr Finestone inquires whether the generation of the “Top 5” lists by the Good Stewardship working groups is better

characterized as a subject of quality performance rather than professionalism. Our characterization of the effort as professionalism arises from the Physician Charter, in which the definition of professionalism rests, in part, on the principle of social justice. The charter ethically commits physicians to work toward “the wise and cost-effective management of limited clinical resources.”¹

The ethical principle of justice requires that everyone be treated fairly. Professionalism requires that resources be used wisely. Both assure that resources are allocated in the fairest and most effective manner. Making wise clinical decisions and being good stewards of clinical resources creates a health system that provides the best care to the most people.

The “Top 5” lists are not merely clinical guidelines but a fundamental appeal to physicians’ sense of professional obligation to achieve a sustainable health care system for all Americans. This epitomizes the concept of professionalism.

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Do Procalcitonin Algorithms Modify Mortality?

In reporting the results of the systematic review “Procalcitonin Algorithms for Antibiotic Therapy Decisions: A Systematic Review of Randomized Controlled Trials and Recommendations for Clinical Algorithms,” Schuetz et al¹ state that measurement of procalcitonin (PCT) levels for antibiotic decisions in patients with respiratory tract infections and sepsis does not worsen the mortality rate. We are doubtful about their conclusions. We believe that the meta-analysis is underpowered to provide evidence that PCT can affect mortality. Mortality was the primary outcome in only 3 of 14 randomized controlled trials included in the study, and in the primary setting studies (approximately 25% of the subjects) death was an extremely rare event (1 event). A second issue to be addressed is that the meta-analysis involved trials with very different clinical settings (clinical heterogeneity); thus, we wonder if it should be more appropriate to perform a random effect analysis, irrespectively of the statistical significance of the heterogeneity. Finally, regarding the methodological quality of original randomized controlled trials, we ask the authors if the global adherence to the protocols (that was

low in almost all studies) can be a bias affecting the results of the meta-analysis.

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In reply

The aims of our review were to summarize results of previous randomized controlled trials investigating the effects of procalcitonin protocols for antibiotic stewardship decisions, with particular focus on the different protocols used, and to propose clinical algorithms for use in future trials. We found that none of the trials reported increased rates of mortality or other adverse outcomes; yet, only 4 of them were noninferiority trials and adequately powered to address mortality.¹⁻⁴ Mortality was also similar between groups in a pooled analysis using aggregate data of individual trials, but we agree with Ferrari et al that these results should be viewed with caution.

The 95% confidence interval cannot rule out a clinically relevant increase in mortality in high-risk settings, and other relevant clinical outcomes were not considered for pooled analysis. Although a sensitivity analysis using a random effects model (summary odds ratio for mortality, 0.91; 95% CI, 0.73-1.15) confirms our previous results with the Peto method, the differences in settings, patient acuity, underlying type of infection, and methodological quality of trials make an aggregate data meta-analysis a suboptimal choice. Therefore, an individual patient data meta-analysis focus-

ing on patients with acute respiratory tract infections with a comprehensive list of patient-relevant outcomes, standardized outcome definitions across trials, and predefined sensitivity and subgroup analyses is under way in an attempt to resolve these remaining uncertainties.⁵ Within this analysis we also aim to investigate whether methodological shortcomings, such as the low adherence rates in some of the studies, would influence the interpretation of results.

We also agree that future work is needed to confirm the safety of procalcitonin protocols, particularly in non-European countries and in critical care settings. Toward this aim, we believe that our review provides important and timely information and that the proposed algorithms are a summary of the current state of knowledge in the field. We hope that this may lay ground for future research to tackle the existing vicious cycle of antibiotic overuse and emerging bacterial resistance.

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