FROM THE EDITORS' DESK

Personalized Medicine Without the "Omics"

Richard L. Kravitz, MD, MSPH

UC Davis Division of General Medicine, University of California Davis, Sacramento, CA, USA.

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Few concepts in health care have stirred the popular imagination like personalized medicine. However, finding cures and identifying best treatments based on genetics and genomics has been much more challenging than early proponents hoped. A broader view of personalization, one based on phenotypes and patient preferences, seems much more promising—at least for the immediate future.

Society of General Internal Medicine (SGIM) members have been at the forefront of this work. For example, former SGIM President Shelly Greenfield has performed a series of studies over decades that greatly clarifies our understanding of how patient complexity and comorbidity influence prognosis, treatment responsiveness, and vulnerability to adverse treatment effects. University of California, San Francisco (UCSF) geriatricians Louise Walter, Ken Covinsky, and Sei Lee have shown how applying preventive care guidelines indiscriminately to elders with multiple chronic conditions can result in more harm than good. And general internists Rod Hayward, Tim Hofer, Eve Kerr and Sandeep Vijan (all at the University of Michigan and/or its affiliated VA) have demonstrated, with mathematical precision, the importance of treatment effect heterogeneity and how to navigate between the shoals of over-treatment and under-treatment.

In this issue of *JGIM*, a Special Symposium focuses much-needed attention on multimorbidity and its consequences for patient health, population measurement, and clinical policymaking. As described in an editorial by Symposium editors Cynthia Boyd and David Kent, three articles, each by a group of national experts, take on the challenges of evidence generation, evidence synthesis, and guideline development for patients affected by multiple chronic conditions.¹ Whether or not the ideas in these papers lead immediately to new scientific paradigms, they make for provocative reading and will stimulate the field.

Three other articles in *JGIM* take up the theme of individualization of care. The article by Michaelidis et al. considers whether treatment of outpatient respiratory infec-

tions can be improved through collection of more precise clinical data—in this case, the use of procalcitonin as a marker of bacterial infection.² They conclude that procalcitonin testing can reduce antibiotic use, but is not cost-effective unless societal costs owing to antibiotic resistance are considered. In an entirely different clinical realm, Stephens et al. ask similar questions about alcoholic detoxification, specifically evaluating a new, more patient-specific, protocol.³ Finally, the paper by Singh et al. applies the “individualization principle” at the policy level. In their analysis of hospital readmission rates, only a small amount of between-hospital variation could be ascribed to the hospitals themselves; patient characteristics were far more important.⁴

The genomics revolution continues to stir high hopes. In the meantime, techniques to identify and explore heterogeneity of treatment effects across patient subgroups may offer prospects for more immediate progress. Over the next several years, this new science of clinical care—“personalized medicine without the omics”—will move us closer to the holy grail of clinical medicine, providing the right care to the right patient at the right time. *JGIM* plans to be there as it happens.

Corresponding Author: Richard L. Kravitz, MD, MSPH; UC Davis Division of General Medicine University of California Davis, Sacramento, CA, USA (e-mail: rkravitz@ucdavis.edu).

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