

EDITORIAL

Bridging between basic medical science and clinical practice

Translating the extraordinary scientific and technological advances from the biomedical research laboratory into actual patient care practices and other processes aimed at promoting health has been a major challenge, particularly for patients in community settings. Because of that the increased participation of clinicians from primary health care in clinical research would have a number of benefits. As experts in the delivery of clinical care in one society, they have much to contribute providing health care for patients in the whole spectrum of illnesses¹. They are among the first to recognize changes in patients' which come us as result of disease and conditions associated with demographic shiftings. Very often these are unexpected events such as trauma, natural disasters, pandemic infections, etc. They are also directly in contact with the policy-related matters (e.g., health consequences associated with increase in price of medications or the clinical consequences of war, such as the rapid increase in the number of individuals with prosthetic limbs and post traumatic stress syndrome)². Finally, participation in clinical research would benefit clinicians from primary health care in more ways, such as: contributing the mission of medicine and improving the scientific basis for medical practice; allowing clinicians to stay with new innovations ie. the development up to-date of information systems to improve data-gathering associated with the research³.

A major goal is the development of teams of investigators from various research disciplines, is to turn the scientific discoveries from the laboratories into treatments and strategies for patients in communities. However, even with that introduction only a small part of the community will provide participation in clinical research. The barriers for this in USA recognised from clinicians community and showed in down table⁴.

TABLE: Barriers clinicians have identified regarding participation in clinical research⁴

Addressing professional values:	
Study questions	Study questions are not pertinent to topics of interest for clinicians, their practice, or their patients.
Study design feasibility	Study inclusion and exclusion criteria make most community practice patients ineligible.
Clinicians's relationships with clinical/scientific communities	Clinicians need reassurance that research engagement does not threaten the doctor-patient relationship.
Clinician and patient distrust of research	Equitable access to research opportunities & to care reflecting research findings will help address longstanding mistrust by clinicians and patients for research endeavors.
Developing necessary infrastructure:	
Data quality	Assuring data quality in office settings is challenging, particularly given the lack of uniformity of study design across studies.
Design efficiency	Adequate and efficient training for successful research participation is not readily available or pertinent to clinician practice settings.
Study costs	Costs and effort associated with transient research engagement are excessive.
Research training	Local research training efforts are not rigorous enough.
Assuring privacy	Accessing IRB [†] and HIPAA [‡] certification is burdensome and time-consuming.
Research engagement	Research participation is isolating without systematic feedback about performance, data quality, and research findings.
Realigning financial incentives:	
Scheduling	There is no time to do research in a busy practice.
Reimbursement	Clinical research participation will not be reimbursed adequately.
Liability	The adequacy of legal liability (insurance?) for research participation for practicing clinicians is murky.
Predictability	Unpredictable nature of research (sporadic study availability, changes in costs and reimbursement rates).
Information availability	Information is not readily available (study questions, protocols, reimbursement schedules, study-specific enrollment, data quality).

[†] IRB = institutional review board

[‡] HIPAA= Health Insurance Portability and Accountability Act

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References

- 1 Higashi T, Shekelle PG, Adams JL, et al: Quality of care is associated with survival in vulnerable older patients. *Annals of Internal Medicine* 2005, 143(4):274-281.
- 2 Tufts Center for the Study of Drug Development: Number of principal investigators in the U.S. is declining. 2005 [<http://csdd.tufts.edu/NewsEvents/NewsArticle.asp?newsid=54>], Accessed July 17, 2010.
- 3 Green LA, Hickner J: A short history of primary care practice-based research networks: from concept to essential research laboratories. *J Am Board Fam Med* 2006, 19(1):1-10.
- 4 Kahn et al.: Bridging the gap between basic science and clinical practice: a role for community clinicians. *Implementation Science* 2011 6:34.