

To the Editor: Why Should Busy Clinicians Take Time to Participate in Clinical Research?

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Health disparities in rural areas have been documented.^{1,2} Recent evidence shows that critical access hospitals witnessed worse outcomes in patients with acute myocardial infarction, congestive heart failure and pneumonia.³ The unique circumstances of a rural hospital or clinic, particularly in Appalachia where the mountainous terrain limits access, often prohibit these institutions from benefiting from new therapies which are usually developed in urban areas. Participation in clinical trials is one way to improve patient care in rural areas while developing procedures and therapies appropriate for the specific population.

Clinical trials provide a way to evaluate controlled and usually randomized interventions and produce objective observations on the best therapy for the patient and the patient population as a group. This research is the gunwale of evidence-based therapy, and provides clinicians with unbiased information needed to assist them in complex medical decisions. Participation in research allows the clinician investigator to become immersed in a specific area of medicine in a way that cannot be duplicated by simply reading the literature. In addition, investigators and their staff have opportunities to meet other researchers from across the country and around the world and these meetings are often more productive when centered on a specific area of interest or collaboration.

For hospitals and clinical organizations as well, clinical research is a boon. Having clinicians participate in trials provides on-site experts who can accelerate the adoption of newly approved therapies. Experimental drugs, devices and other therapies studied in clinical trials are the cutting edge of care and a way to provide patients with the most advanced therapy available. While new therapies are not always the best therapies, evidence is starting to mount that shows improved patient outcomes in facilities that regularly conduct clinical research.

Several studies in the United States and Europe demonstrated positive findings in regard to improved patient outcomes from clinics and hospitals that participate in research.^{4,5} Two studies in particular highlight the principle of better patient care through participation in clinical trials. In the first study, 174,062 patients with non-ST segment elevation acute coronary syndrome were reviewed from 494 participating hospitals. Short term mortality decreased significantly from hospitals that did not participate in research (5.9%) to hospitals that participated in trials (4.4%). The decrease in mortality was even greater at those sites with high enrollment activity (3.3%).⁶ These data are particularly telling when one considers that only about 3% of the patients with non-ST segment elevation acute coronary syndrome were actively enrolled in a trial in the research hospitals. A second study of 165 German hospitals demonstrated a 1.6-fold higher risk of death in patients with ovarian cancer in non-research hospitals even after adjusting for FIGO (International Federation of Gynaecology and Obstetrics) stage and hospital size.⁷ Similar findings have been published in breast cancer,^{8,9} lung cancer¹⁰ and alcohol abuse¹¹. It has been suggested that outcomes are better for patients even if they are in the placebo arm of a clinical trial.¹²

Clinical research, at its core, is about creating access to novel treatments, educating the clinical community about the cutting edge of medicine and providing the best possible care to the patient population as a whole. The entire community, patients and practitioners, benefits from clinical research.

References

1. Wilbur RL, Pusey WA, Strickler DA, Colwell NP, Zapffe FC, Rodman JS, et al. How to make a doctor: an unusual symposium on the essentials of medical education. *Cal West Med.* 1925;23(11):1409-18.
2. Andrus LH, Fenley M. Health science schools and rural health manpower. *Med Care.* 1974;12(3):274-8.
3. Joynt KE, Harris Y, Orav EJ, Jha AK. Quality of care and patient outcomes in critical access rural hospitals. *JAMA.* 2011;306(1):45-52.
4. Boaz A, Hanney S, Jones T, Soper B. Does the engagement of clinicians and organisations in research improve healthcare performance: a three-stage review. *BMJ Open.* 2015;5(12):e009415.
5. Hanney S, Soper B, Jones T, Boaz A. Benefits from clinicians and healthcare organisations engaging in research. *BMJ.* 2015;351:h6931.
6. Majumdar SR, Roe MT, Peterson ED, Chen AY, Gibler WB, Armstrong PW. Better outcomes for patients treated at hospitals that participate in clinical trials. *Arch Intern Med.* 2008;168(6):657-62.
7. Du Bois A, Rochon J, Lamparter C, Pfisterer J, Pfisterer AGOOO. Pattern of care and impact of participation in clinical studies on the outcome in ovarian cancer. *Int J Gynecol Cancer.* 2005;15(2):183-91.
8. Laliberte L, Fennell ML, Papandonatos G. The relationship of membership in research networks to compliance with treatment guidelines for early-stage breast cancer. *Med Care.* 2005;43(5):471-9.
9. Carpenter WR, Reeder-Hayes K, Bainbridge J, Meyer AM, Amos KD, Weiner BJ, et al. The role of organizational affiliations and research networks in the diffusion of breast cancer treatment innovation. *Med Care.* 2011;49(2):172-9.
10. Rich AL, Tata LJ, Stanley RA, Free CM, Peake MD, Baldwin DR, et al. Lung cancer in England: information from the National Lung Cancer Audit (LUCADA). *Lung Cancer.* 2011;72(1):16-22.
11. Abraham AJ, Knudsen HK, Rothrauff TC, Roman PM. The adoption of alcohol pharmacotherapies in the Clinical Trials Network: the influence of research network participation. *J Subst Abuse Treat.* 2010;38(3):275-83.
12. Braunholtz DA, Edwards SJ, Lilford RJ. Are randomized clinical trials good for us (in the short term)? Evidence for a "trial effect". *J Clin Epidemiol.* 2001;54(3):217-24.