The Ochsner Journal 13:166–168, 2013

Letters to the Editor

Distance Learning for Educating Anesthesiology Residents

To the Editor:

We read with interest the winter issue of *The Ochsner Journal* (Volume 12, Number 4) that discussed variable aspects about medical education and mentorship. The issue presented multiple interesting topics, ideas, and some surprising outcomes. Overall it was a great issue that highlighted some educational best practices.

In this letter we want to share another aspect of education that we currently practice at the anesthesiology department at the University of Cincinnati. We have introduced distance learning strategies into the education approach in teaching our residents. Distance learning is a relatively new teaching method that first started in the 1950s. Initially it did not gain much popularity and was dismissed as merely "correspondence courses" or a "cheap and trashy" form of education, but now distance learning has become an emerging and effective educational strategy that is gaining widespread acceptance.[1]

Our program maintains a series of didactic lectures on Tuesday afternoons from 4:00-6:00 pm and Wednesday mornings from 7:00-8:00 am. In an effort to optimize the educational program, we have implemented a program of recording lectures to extend the reach to those who are unable to physically attend. We have also found that the static recordings assist fatigued residents in reviewing the material at a more convenient time, enhancing the quality of the educational sessions.

The coauthor (JPL) wanted to investigate the effectiveness of this distance learning approach. Two lectures were recorded and made available to the residents to view at their convenience. A deadline was set to view the recorded lectures and also to complete a quiz to ensure understanding. The residents were also asked to complete an anonymous evaluation of the program to assess satisfaction with and effectiveness of this approach. The results have been promising.

The distance learning approach has been tested and used in other fields such as the nursing field as indicated by the rich literature about distance learning for nursing. Yet the use of this approach in graduate medical education is limited. The schedule and work of a resident are full of competing demands. We believe that this approach will contribute to more effective and satisfactory learning within graduate medical education programs. Distance learning has a number of advantages, and the optimum use of the strategy is yet to be determined.

Sincerely,

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Editors' Reply

We agree with Dr Abd-Elsayed that distance learning can be an effective tool for graduate medical education and needs further study and development in medical education.

Professor Wilkinson's editorial titled "The Future of Medical Education: All About Being Connected" in the medical education edition of *The Ochsner Journal* (Volume 12, Number 4) postulates on the role of technology and distance learning. He suggests that in the future we may see most of a medical school's curriculum delivered through online tools such as recorded lectures, virtual tutorials, and simulation exercises.

We have a way to go, and there are challenges to distance learning in medical education. The "human factor" and the special and unique therapeutic doctor-patient relationship would seem difficult to teach and harder to role model behind the mask of technology. However, we agree it can complement the curriculum, especially considering the current challenges of duty hours, milestones, and an ever-growing body of knowledge.

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The β-Blockers Crumbling Continues? A Critical Analysis of the REACH Registry

To the Editor:

The study of Bangalore et al questions the validity of one of the mainstays of cardiovascular prevention: the cardioprotective effect of beta blockers (BBs).[1] Therefore, it is important to make a critical analysis of some controversial elements of the REduction of Atherothrombosis for Continued Health (REACH) Registry such as the following:

1. The current cohort (44,708 patients) and the subgroup included in the propensity score groups (21,860)[1] represent only 65.4% and 32% of the original cohort (68,375).[2] Consequently, propensity score is an alternative to the bias of losing one-third of the original cohort.

2. There may be misclassification of cases. In the 1-year follow-up cohort of 68,236 patients, the subgroup with only risk factors was made up of 12,422 patients[2] while the current cohort of 44,708 patients paradoxically reported a larger subgroup (18,653 patients) with only risk factors.[1]

3. The results of REACH might not be valid in all regions studied if we consider that (A) regions with large differences in cardiovascular risk (CVR) were studied (eg, high cardiovascular death rates in Eastern Europe [2.9%] vs low in Japan [0.74%]),[2] (B) there was a large regional variability in the use of BBs (63.23% in Eastern Europe vs 18.6% in Japan),[2] and (C) important environmental and genetic variables were not quantified in the REACH Registry, which may explain these regional differences of CVR.[3]

4. CVR predictors are not common in primary (eg, Framingham coronary heart disease scores) and secondary (eg, GRACE [Global Registry of Acute Coronary Events] or OPTIMIZE-HF [Organized Program to Initiate Lifesaving Treatment in Hospitalized Patients With Heart Failure] scores) prevention. However, the REACH propensity score uses the same variables in the 3 clinical settings: prior history of myocardial infarction (MI), coronary artery disease but no history of MI, and only risk factors for coronary artery disease.

5. The major criticism of BBs has been associated with lower protection against stroke in primary prevention;[4] however, the REACH Registry did not detect this limitation.

6. REACH did not take into account the type and dose of BBs used. BBs are not a homogeneous class, and vasodilating BBs—such as celiprolol, carvedilol, and nebivolol—do not appear to share some of the negative properties described for other compounds (such as atenolol).[5] Most of the evidence against atenolol comes from clinical trials (LIFE [Losartan Intervention For Endpoint reduction in hypertension study],[6] ASCOT [Anglo-Scandinavian Cardiac Outcomes Trial][7]) in which it was used once per day, even though atenolol's half-life is only 18 h.[8]

7. Other limitations have been recognized by REACH investigators (eg, unmeasured confounding variables).[1,2,9]

After these and other considerations,[10] we have doubts if the BB crumbling continues.[11]

Sincerely,

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Reply: Beta Blockers May Be Alive, But on Life Support

We read with interest the comments from Drs Morales Salinas and Coca regarding the widely publicized *JAMA* paper by Bangalore and colleagues[1] on the value (or lack of value) of beta blockers (BBs) in patients with or without coronary heart disease (CHD), which one of us (CJL) commented on in the media the day this was published. Drs Morales Salinas and Coca correctly point out some potential weaknesses of an observational study that would not be present in well-done randomized control trials. Despite these limitations, however, this metaanalysis was performed from a large cohort and was quite well done and certainly raises the idea that BBs may be less useful in the modern era than compared to decades earlier when many of the original studies were performed, during times when patients were not treated as vigorously. In fact, for CHD patients with acute myocardial infarction (AMI), the use of vigorous revascularization, potent antithrombotic therapy, and statins at very high and intense doses has remarkably improved prognosis.[2] Likewise, CHD patients in general and those with CHD risk factors are treated much more aggressively than in the past.

Nevertheless, Drs Morales Salinas and Coca make a good point regarding the type of BB. We have recently suggested that carvedilol, for example, is considerably more effective as a BB compared with older agents;[3-6] may be appropriate for patients with AMI, stable CHD, and those with CHD risk factors (especially hypertension [HTN]); and may be particularly important for patients with heart failure. In pure HTN, for example, we made the point that the use of older BBs was largely ineffective[4,6] and suggested that the "crumbling continues,"[6] as Dr Morales Salinas stated. Although BBs may still be alive in preventive cardiology, these agents may be on life support and may need resuscitation in 2013. The use of vasodilating BBs, especially carvedilol, may provide better effectiveness in primary and secondary prevention.

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Editor's Note: For a summary of the Bangalore et al trial that is the subject of these letters, turn to Advancing Evidence-Based Practice in this issue (page 3). The Bangalore trial is the subject of the first summary.