



RESPONSE TO COMMENT ON O'CONNOR ET AL.

## Randomized Trial of Telephone Outreach to Improve Medication Adherence and Metabolic Control in Adults With Diabetes. *Diabetes Care* 2014;37:3317–3324

*Diabetes Care* 2015;38:e46 | DOI: 10.2337/dc14-2928

Patrick J. O'Connor,<sup>1</sup>  
Julie A. Schmittiel,<sup>2</sup> Ram D. Pathak,<sup>3</sup>  
Ronald I. Harris,<sup>4</sup> and  
Katherine M. Newton<sup>5</sup>

We appreciate the thoughtful comments from Blackberry et al. (1) on our article (2) and the insights they provide based on their efforts to improve medication adherence and timely treatment intensification in adults with diabetes (3). Although our study (2) and the study of Blackberry et al. (3) failed to improve medication adherence rates, another recent report by Derose et al. (4) showed that an automated telephone call from a computer to patients who had been prescribed a statin but had not filled the prescription within 2 weeks did in fact significantly and substantially improve primary adherence (first prescription fill) and statin persistence at 12 months. A differentiating feature of the study by Derose et al. is that it narrowly targeted patients who had not yet filled their prescription, while we found that over 75% of our targeted patients had already filled the prescription at the time of the intervention call.

As health information technology becomes more integrated, it may be possible to replicate the low-cost intervention from the study by Derose et al. in more care systems. However, few care systems

or clinics currently have timely and systematic access to pharmacy prescription fill data that is needed to precisely target patients at risk for primary nonadherence. Efforts to develop more integrated clinical data systems may be a prerequisite for broader implementation of proactive interventions to improve primary adherence.

We agree with Blackberry et al. (1) that timely treatment intensification in patients who have not reached evidence-based goals is desirable but difficult to achieve. A major obstacle to timely treatment intensification is lack of focus on particular clinical opportunities due to competing demands during brief clinical encounters. Prior work has shown that an electronic medical record point-of-care clinical decision support system can significantly improve glucose control and some aspects of blood pressure control in adults with diabetes (5), and we propose that broad use of clinical decision support systems that provide timely and accessible information to both the patient and the provider at the time of the encounter can complement the

other care improvement strategies mentioned by Blackberry et al. (1).

**Duality of Interest.** No potential conflicts of interest relevant to this article were reported.

### References

1. Blackberry ID, Furler JS, Best JD, Young D. Randomized trial of telephone outreach to improve medication adherence and metabolic control in adults with diabetes. *Diabetes Care* 2014;37:3317–3324 (Letter). *Diabetes Care* 2015;38:e45. DOI: 10.2337/dc14-2599
2. O'Connor PJ, Schmittiel JA, Pathak RD, et al. Randomized trial of telephone outreach to improve medication adherence and metabolic control in adults with diabetes. *Diabetes Care* 2014;37:3317–3324
3. Blackberry ID, Furler JS, Best JD, et al. Effectiveness of general practice based, practice nurse led telephone coaching on glycaemic control of type 2 diabetes: the Patient Engagement and Coaching for Health (PEACH) pragmatic cluster randomised controlled trial. *BMJ* 2013; 347:f5272
4. Derose SF, Green K, Marrett E, et al. Automated outreach to increase primary adherence to cholesterol-lowering medications. *JAMA Intern Med* 2013;173:38–43
5. O'Connor PJ, Sperl-Hillen JM, Rush WA, et al. Impact of electronic health record clinical decision support on diabetes care: a randomized trial. *Ann Fam Med* 2011;9:12–21

<sup>1</sup>HealthPartners Institute for Education and Research, Minneapolis, MN

<sup>2</sup>Kaiser Permanente Division of Research, Northern California, Oakland, CA

<sup>3</sup>Marshfield Clinic, Marshfield, WI

<sup>4</sup>Geisinger Center for Health Research, Danville, PA

<sup>5</sup>Group Health Research Institute, Seattle, WA

Corresponding author: Patrick J. O'Connor, patrick.j.oconnor@healthpartners.com.

© 2015 by the American Diabetes Association. Readers may use this article as long as the work is properly cited, the use is educational and not for profit, and the work is not altered.