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Letter to the Editor

Reply to Je Hyeok Oh



To the Editor,

We thank Dr. Oh for his interest in our work.¹ Our primary objective was to evaluate whether chest compression depth was significantly associated with outcome based on accelerometer-recordings obtained with monitor-defibrillators. We agree that real-time feedback is intended to improve adherence to evidence-based recommendations for cardiopulmonary resuscitation (CPR) process, and that such improved adherence is intended to improve outcomes. We also agree our prior trial of such real-time audiovisual feedback to emergency medical services (EMS) providers did not demonstrate improved outcome.² However, the prior trial evaluated a different manufacturer's devices as well as adherence to different evidence-based recommendations. We are unclear which of these two factors contributed more to an effect discordant with our current analysis. A before-after study of feedback provided using the same manufacturer's devices as were used in our current analysis showed that feedback was associated with greater outcome.³ We have insufficient information in our present sample to be able to precisely report whether real-time feedback was associated with greater outcome.

We understand that differences in patient body size or resilience of the material underlying the patient could increase the variation in depth of compression measured. Such increased noise would tend to decrease our ability to detect a significant relationship between compression depth and outcome. Despite these vagaries, our analysis demonstrated that increased chest compression depth measured by accelerometer is associated with better survival. It also confirmed that current evidence-based recommendations to compress within 50–60 mm are likely associated with greater survival than compressing to another depth.

Conflict of Interest

Nichol- Salary Support from Leonard A Cobb~ Medic One Foundation Endowed Chair in Prehospital Emergency Care, University of

Washington; Consultant and PI, STEMI COOL trial of intravascular cooling in patients with ST-elevation myocardial infarction (STEMI), funded by ZOLL Circulation Inc. San Jose, CA; Consultant, Acute Care Program, General Electric Health Care Inc., Chicago, IL and Roche Inc., Chicago, IL; Kestra Medical Technologies, Kirkland, WA; Pagonia Medical Inc., Menlo Park, CA; Vapotherm Inc., Exeter, NH. Medical Developments International, Chicago, IL. Principal Investigator, Abiomed Inc., Danvers, MA Principal Investigator, General Electric Health Care Inc., Chicago, IL.

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