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Title of Project: Please Capitalize the First Letter of Each Word in Your Title

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Body of Abstract **MAXIMUM of 350 words**

Supported by: (e.g., The UConn School of Medicine Summer Research Fellowship)

References:

Please format the references by numbering each one (e.g., 1. Smith, John...). Do not add any extra lines/tabs within or between each reference.

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In the body of the abstract include four headings corresponding to each rubric criterion: Background/Objectives, Methods, Results, and Conclusions. Each heading should be in Bold, followed by a colon.

****Do NOT exceed one full page in Microsoft Word!****

Sample Abstract

Unobtrusive Gait Velocity Measurement in a Geriatrics Outpatient Clinic

Laura Hatchman¹, Zhaoyan Fan¹, Robert X Gao¹, George A Kuchel¹, Lisa C. Barry¹

¹*University of Connecticut School of Medicine, UConn Health, Farmington, CT*

Background/Objectives: Gait velocity is a simple, robust predictor of health outcomes in older persons. Yet clinicians rarely measure this “5th vital sign.” Its routine, objective, and unobtrusive measurement in “real-world” clinical settings is needed to translate this research into everyday practice. We sought to establish the validity and feasibility of using a radio frequency identification device (RFID) for measuring gait velocity in geriatrics clinic patients.

Methods: Geriatrics clinic patients were recruited over 4 weeks. Participants (N=50) wore an armband containing a RFID tag with a unique ID and were instructed to walk down the clinic hallway at their usual pace. Wall-installed RFID readers recorded time to walk 4.3-meters. Participants’ walks were simultaneously timed via a stopwatch, the “gold standard.” Two gait velocity measurements, based on RFID and stopwatch recordings, were calculated for each participant and difference scores (RFID gait velocity – stopwatch gait velocity) were plotted. T-tests determined if difference scores varied according to patient characteristics. Participants and 9 clinic staff were also asked questions regarding acceptability of using the device.

Results: Mean age was 80.9±8.0 (62-99) and 66% were female. Average gait velocity (m/s) via RFID was 0.849±0.268 (0.132 to 1.471) and via stopwatch was 0.852±0.269 (0.126 to 1.466). Average difference score was -0.003±0.035. Participants who reported difficulty walking a quarter mile(42%), used an assistive device(24%) or reported fair/poor health(18%) had higher (worse) gait velocity using either RFID or stopwatch ($p<0.01$ for each comparison). However, these characteristics did not impact difference in gait velocity. Overall, 50(100%) and 46(92%) participants agreed/strongly agreed that they felt comfortable having their gait velocity measured and that they wanted their providers to track this over time. Also, 8 of 9 providers indicated that measuring gait velocity did not interrupt office procedures.

Conclusions: Measuring gait velocity using RFID technology is unobtrusive and provides measurements comparable to the research “gold standard.” Integrating gait velocity measurement into “real-world” clinical settings may help to support T2 translation and the Precision Medicine effort.

Supported by: The UConn School of Medicine Summer Research Fellowship

References:

1. Lewis AJ. Melancholia: A Historical Review. Br J Psychiatry. 1934;80(328):1 LP-42. <http://bjp.rcpsych.org/content/80/328/1.abstract>.
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3. Rai D, Kerr MP, McManus S, Jordanova V, Lewis G, Brugha TS. Epilepsy and psychiatric comorbidity: A nationally representative population-based study. Epilepsia. 2012;53(6):1095-1103. doi:10.1111/j.1528-1167.2012.03500.x