



Real-World Applications of Artificial Intelligence to Improve Medication Management Across the Care Continuum

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Abstract:

The United States spends more in aggregate and on a per-capita basis on healthcare than any other country. Spending on medications accounts for over 10% of U.S. healthcare expenditures and has been identified as a key driver of the nation's higher spending on healthcare.

In addition, there are several issues with and shortcomings of the medication management system, including non-adherence and adverse drug events, which often result in emergency department visits and hospitalizations, and increasing administrative burdens placed on clinicians, which cause pharmacists to spend the majority of their time on non-clinical activities.

A private sector initiative, the Autonomous Pharmacy Advisory Board, which involves several leading hospitals and health systems from across the U.S., is applying automation, analytics, machine learning and AI to improve operational and clinical outcomes, ensure regulatory compliance, and advance population health.

The aforementioned technologies are being used by various companies and healthcare provider organizations to address four significant medication management issues: 1) drug shortages; 2) the opioid crisis; 3) drug diversion; and 4) medication adherence. Practical real-world use cases will be highlighted, along with suggested vectors for future development.

Biography:

Ken Perez is the VP of Healthcare Policy for Omnicell, Inc. He is a thought leader on various subjects, including health policy, healthcare economics, AI, data analytics, population health management, and the opioid crisis. Previously, Ken served as the SVP of Marketing for Me-



deAnalytics. He has spoken on AI at numerous conferences, including the 2019 Ai4 Healthcare Conference and the Global Artificial Intelligence Conference. Ken holds a bachelor's degree in international relations with an emphasis in economics from Stanford University and a MBA with a concentration in finance from UCLA Anderson.

Publication of speakers:

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3. H. W. Rogers, M. A. Weinstock, S. R. Feldman, and B. M. Coldiron, "Incidence estimate of nonmelanoma skin cancer (keratinocyte carcinomas) in the U.S. population, 2012," *JAMA Dermatology*, vol. 151, no. 10, pp. 1081-1086, 2015.
4. Esteva, B. Kuprel, R. A. Novoa, J. Ko, S. M. Swetter, H. M. Blau, and S. Thrun, "Dermatologist-level classification of skin cancer with deep neural networks," *Nature*, vol. 542, no. 7639, pp. 115-118, 2017.

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