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VA Partners With DeepMind to Build Machine Learning Tools to **Identify Health Risks for Veterans**

WASHINGTON — Today the Department of Veterans Affairs (VA) announced that it has approved a medical research partnership with DeepMind to address the global issue of patient deterioration during hospital care, which accounts for 11 percent of in-hospital deaths around the world.

The partnership will focus on analyzing patterns from approximately 700,000 historical, de-personalized health records to develop machine learning algorithms that will accurately identify risk factors for patient deterioration and predict its onset. Initial work will be focused on identifying the most common signs of risk, like acute kidney injury, a problem that can lead to dialysis or death, but is preventable if detected early.

"Medicine is more than treating patients' problems," said VA Secretary David J. Shulkin. "Clinicians need to be able to identify risks to help prevent disease. This collaboration is an opportunity to advance the quality of care for our nation's Veterans by predicting deterioration and applying interventions early.'

Eventually, similar approaches will be applied to other signs of patient deterioration, leading to improved care for many more patients, with fewer people developing serious infections and conditions — ultimately saving lives.

"We are proud to partner with the Department of Veterans Affairs on this important challenge," said Mustafa Suleyman, co-founder of DeepMind. "This project has great potential intelligently to detect and prevent deterioration before patients show serious signs of illness. Speed is vital when a patient is deteriorating. The sooner the right information reaches the right clinician, the sooner the patient can be given the right care."

DeepMind is the world leader in artificial intelligence research. It has already partnered with leading hospitals in the United Kingdom to apply its innovative machine-learning algorithms to research projects looking at eye disease, head and neck cancer, and mammography.

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