



**UNSW**  
SYDNEY



## Decision Support Systems for Managing Chronic Disease Using Artificial Intelligence

**Development of clinical decision support systems using machine learning techniques for telehealth systems to better support patients with chronic diseases, and reduce the clinical care burden on the health system.**

### Competitive advantage

- Advanced knowledge of artificial intelligence and deep learning
- Access to patient clinics and study groups
- Engagement of clinicians and stakeholders to promote user-centric systems design

### Impact

- Reduce hospital readmissions and patient mortality
- Early identification of deteriorating patient which enables healthcare workers to assess disease severity from a remote command centre
- Making possible to initiate early interventions that can change the clinical outcome in patients with chronic condition

### Successful outcomes

- Will be exploited in a clinical trial throughout NSW hospitals for reducing hospital readmissions in the case of cardiovascular disease

### Capabilities and facilities

- Working to integrate the artificial intelligence based predictive analytics into a 'smart-home' designed for older Australians and Australians with Dementia
- Collaborating with a network of dedicated software developers

### Our partners

- Neuroscience Research Australia (NeuRA)
- Prince of Wales Hospital

### More Information

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