**Diabetes Alliance Program Plus reduces hospitalisations in people with type 2 diabetes: an emulated cluster trial using linked general practice and hospital data**

**Aim**

To test whether the Diabetes Alliance Program Plus (DAP+) integrated care intervention reduces hospitalisations for people with type 2 diabetes (T2D), compared to propensity-matched controls from outside the Hunter New England Local Health District (HNELHD), over 5 years.

**Methods**

The Diabetes Alliance Program (now DAP+) commenced in 2015, taking diabetes specialists into general practices, providing case conferencing and other capability building activities. The target trial framework was applied to emulate a cluster-randomised trial using the Lumos Data Asset, NSW Ministry of Health. Propensity-matched controls were selected from non-DAP+ general practices outside of HNELHD, using pre-specified patient and practice-level covariates. Hospital admissions for people with T2D (primary or secondary diagnosis) were modelled as a Bayesian hierarchical zero-inflated Poisson model.

**Results**

The sample comprised 31,844 people with T2D (n=15,922 in DAP+ general practices and n=15,922 in control practices) with a mean age 65 (±13) years and 48% female. The probability of people with T2D being hospitalised in the first year following the DAP+ intervention was 5% lower: relative risk (RR) 0.95, 95% credible interval (CrI) 0.90, 1.0. Risk of hospitalisations were lower also 7%, and 8% lower in years 2-3, and years 4-5, respectively: RR: 0.93, CrI: 0.89, 0.97 at years 2-3, and RR: 0.92, CrI: 0.88, 0.97 at years 4-5.

**Conclusion**

DAP+, which takes specialist care into the community and upskills primary care clinicians, may be preventing patients with T2D from hospitalisation. Further analyses are needed to understand the potential health and economic gains from this model of care.