

Diabetes medication risk in aged care revealed

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An Australian-first study by the Registry of Senior Australians (ROSA) investigating the use of blood sugar-lowering medications among residents with diabetes in aged care homes nationwide, has revealed the

rising use of insulin and ongoing high use of another antidiabetic drug, sulfonylureas, both associated with a heightened risk of hypoglycemia.

Also known as low blood sugar, hypoglycemia commonly causes symptoms including dizziness and shakiness, accompanied by confusion and anxiety. Symptoms can be difficult to recognize, and recurrent low blood sugar can increase the risk of certain health conditions, frailty, and reduce quality of life in aged care homes.

The study, [recently published](#) in *Diabetes Research and Clinical Practice*, and led by ROSA and UniSA Ph.D. candidate Yohanes Wondimkun, Associate Professor Janet Sluggett, Professor Gillian Caughey and Professor Maria Inacio, examined de-identified data from 140,322 residents across 3,273 aged care homes, identifying potential gaps in [diabetes management](#).

Diabetes affects up to one-third of residents in aged care homes, and two-thirds of them are taking medication to control blood sugar. The study found that the overall use of diabetes medications remained steady between 2009 and 2019, though the specific medications used changed significantly.

"We found insulin use increased and sulfonylureas were still used by one in five residents. These medications can help to manage diabetes but can increase the risk of hypoglycemia and have been targeted for national intervention to limit medication-induced harm in aged care homes," Wondimkun said.

"On the positive side, the use of newer diabetes medications like DPP-4 inhibitors increased by 24% annually, suggesting a general shift towards more costly treatments with a lower risk of hypoglycemia, based on emerging evidence."

The annual percentage of residents with diabetes treated with blood sugar-lowering medications was generally stable at 64% over the 11-year study period. Metformin emerged as the most commonly prescribed medication throughout the study, taken by 36% of people in 2009 and increasing to 44% in 2019. This aligns with global guidelines recommending metformin as an initial therapy for [older people](#) with diabetes.

"Our findings highlight the need to improve diabetes care for older Australians living in aged care homes. The use of government-subsidized annual diabetes care plans and residential medication management reviews is vital for this population," Wondimkun said.

"Aged care providers and [health professionals](#) can also use hypoglycemia risk assessment tools to identify older people with diabetes who are at increased risk of developing [low blood sugar](#)."

ROSA is now conducting further research to understand the extent and safety of diabetes [medication](#) use before and after aged care home entry and hospitalizations for diabetes complications.

More information: Yohanes A. Wondimkun et al, National trends in utilisation of glucose lowering medicines by older people with diabetes in long-term care facilities, *Diabetes Research and Clinical Practice* (2024). [DOI: 10.1016/j.diabres.2024.111701](https://doi.org/10.1016/j.diabres.2024.111701)

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