

# Diabetes Management in Older Adults who Fall: A Retrospective Cohort Study



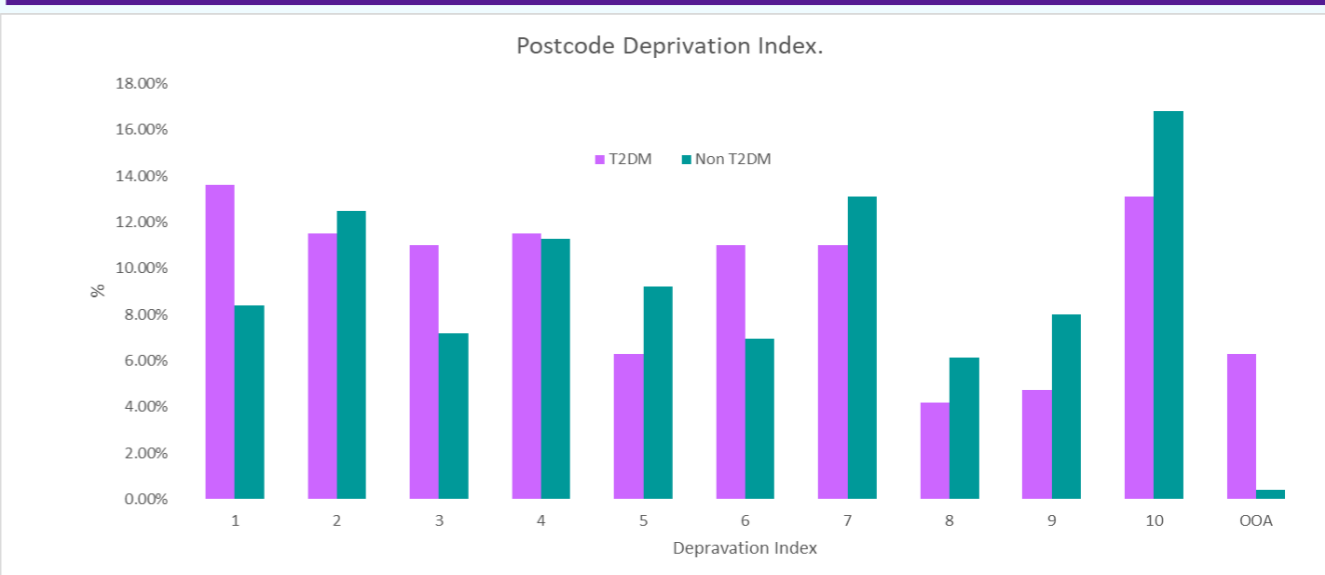
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**Introduction** -Type 2 diabetes mellitus (T2D) is associated with poor health outcomes and few people aged >70 years likely benefit from HbA1c <53mmol/mol, whilst ≤64mmol/mol is a generally accepted target in people with moderate-severe frailty. We analysed fallers with T2DM to evaluate their outcomes and frailty status.

**Results** 1081 patients were included: 294 (27.2%) with T2D and a mean HbA1c of 53.9 (±15.8) mmol/mol [7.1%]. People with T2D had a similar mean CFS and age compared to those without T2D, but higher mean CCI (7.0±2.2 vs 5.9±2.1, p<0.001). Of those people with T2D, 175 (59.5%) and 240 (81.6%) had a HbA1c ≤53 mmol/mol [7.0%] and ≤64 mmol/mol [8.0%], respectively. In total, 48 (16.3%) people with T2D were identified to have a capillary blood glucose below 4.0 mmol/L on admission to the emergency department. People with T2D treated with insulin and/or gliclazide had a greater mortality (36.6% vs 23.6%, p<0.05), greater frequency of hypoglycaemia (35.4% vs 11.8%, p<0.001), and greater HbA1c (65.5±17.2 mmol/mol [8.2] vs 48.9±12.1 mmol/mol [6.6%]) compared to those who used other agents. People with T2D were not more likely to live in deprived areas.

**Methods** Older Persons Assessment Service (OPAS) is an Emergency Department service which accepts patients on frailty criteria (aged >70 years, falls, confusion, care dependence, polypharmacy and poor mobility). OPAS databank was retrospectively analysed for people with T2DM admitted with a fall June 2020 to September 2022. Interactions between clinical outcomes with therapeutic agents used, age, Charlson Co-morbidity index (CCMI) and Clinical Frailty Score (CFS) were evaluated.



**Conclusion** - Falls are a significant burden, and hypoglycaemic agents may contribute to the greater mortality observed in people with diabetes. Diabetes patients presenting to OPAS had a similar CFS, were more likely to be male, prescribed more concomitant medicines and have a lower deprivation score. A significant number had hypoglycaemia on review and 58% of the diabetes group had a HbA1c <53 mmol/mol. Clinician awareness of the poorer prognosis associated with diabetes to support de-prescribing diabetes therapies for patients with significant frailty and HbA1c <64mmol/mol. A frailty assessment should be part of any interaction in the older T2DM patient. We have written a guideline on Diabetes management in Older Adults in SBUHB.

Variable	All N = 1081	With Diabetes N = 294	Without Diabetes N = 787	P value
Age	84.0 (±7.9)	83.5 (±7.6)	84.2 (±8.1)	P=0.18
Male	436	156	280	P<0.001
Female	645	138	507	
CFS	5.3 (±1.3)	5.3 (±1.2)	5.3 (±1.3)	P=0.77
Number of meds	8.3 (±3.7)	9.1 (±3.6)	8.0 (±3.7)	P<0.001
CCI	6.2 (±2.2)	7.0 (±2.2)	5.9 (±2.1)	P<0.001
Alive	831	214	617	P<0.05
Dead	250	80	170	
Deprivation decile	5.4 (±3.0)	5.3 (±2.9)	5.5 (±3.0)	P=0.30