**Introduction**

Sulphonylureas are oral medications used to reduce blood glucose levels in Type II Diabetes.

NICE guidelines recommend sulphonylureas as second line agents where blood glucose control is suboptimal while treated with metformin.

Sulphonylureas are effective at lowering blood glucose levels yet they are associated with serious adverse effects especially in the elderly population, for example, hypoglycaemia and increased cardiovascular risk.

The aim of this audit was to ascertain the commonest cause of hypoglycaemia in hospitalised patients.

**Method and material**

Medical charts were reviewed of all patients with a hypoglycaemic episode during admission over a 6 month period in Causeway Hospital (district general hospital).

Patient cohort was gathered via coding from discharge letters.

28 patients admitted had a diagnosis of hypoglycaemia during admission:

- Age range: 7 months to 85 years
- Sex: 16 males ‘v’ 12 females

**Results**

28 patients had a hypoglycaemic episode during their admission in Causeway Hospital in a 6 month period

**Causes of hypoglycaemia**

- 13 patients (46%): Insulin
- 10 patients (34%): Sulphonylureas
- 5 patients (18%): Insulin and Sulphonylureas
- 1 patient (3%): Other cause

18 of the 28 patients were known diabetics. 6 patients were type 1 diabetics and 12 patients were type 2 diabetics

The mean age was 65 years old for patients with sulphonylurea induced hypoglycaemia

**Management of patients with Sulphonylurea induced hypoglycaemia**

- All diabetic medications stopped
- Sulphonylurea changed to Lisinopril
- Sulphonylurea stopped and then resumed by GP
- Sulphonylurea stopped and then not resumed

**Conclusion**

Although insulin induced hypoglycaemia is the most common cause of hypoglycaemia, sulphonylureas are contributing to a higher (14.3%) than expected percentage of hypoglycaemia in hospital when compared to UKPDS study (1.8%).

There are limiting factors to this audit: A relatively small number of patients were used in the audit and the district general hospital is located near a seaside resort with a predominately retired population.

However it is possible we are underestimating the impact and frequency of hypoglycaemia as patients are treated by ambulance services, seen by GPs and are non-concordant with medications.

From this data we recommend avoiding sulphonylurea prescription in elderly patients. We also recommend discontinuing them where patients are at risk of falls, isolation, acute kidney injury and liver impairment.

Furthermore diabetics have already an increased cardiovascular risk so why prescribe sulphonylureas which increase this risk further?

NICE guidelines recommend DPP-4 inhibitors and Thiazolidinediones as alternatives.

**References**