**CHARACTERISTICS OF PATIENTS WITH TYPE 2 DIABETES MELLITUS NEWLY TREATED WITH BASAL INSULIN THERAPY: A POPULATION-BASED UK STUDY.**

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**OBJECTIVES**

To evaluate the characteristics of patients with type 2 diabetes newly treated with basal insulin therapy in UK primary care setting.

**METHODS**

Adults diagnosed with T2DM newly initiated with a basal insulin from January 2004 to December 2016 were identified in the Clinical Practice Research Link (CPRD). Demographic and clinical data including glycaemic measurements (poor glycaemic control was defined as HbA1c >48mmol/mol [≥7%] according to NICE) were evaluated at or prior to index-date and examined to better understand the patients in a real-world clinical practice.

**RESULTS**

14,602 patients were included in the study. Patients had mean±SD age of 65.2±13.1years, a median T2DM duration of 8-years (IQR, 4-12) and an age at T2DM-diagnosis of 56.80±12.60. Most were males (55.34%) and 36.97% had a first insulin therapy ≥10 years after T2DM diagnosis. The median glycated haemoglobin from the time of T2DM-diagnosis to basal insulin therapy was 65.03mmol/mol [8.10%] (IQR, 55.20-79.24mmol/mol; 7.20-9.40%), and 67.22mmol/mol [8.30%] (IQR, 57.38-81.00mmol/mol, 7.40-9.60%) at 12-months after insulin initiation. The average charlson comorbidity index-score was 2.44±1.65 and 47.93% had ≥2 chronic comorbidities prior to basal insulin therapy. Hypertension, renal disease, ischaemic heart disease, COPD and depression were most common and present in 37.52%, 17.74%, 15.02%, 10.99% and 18.66% of patients, respectively. Eighty-six percent of patients had a record of prior use of OAD, with 63.57% having had two or more OAD prior to insulin therapy. Of those receiving OAD, Metformin (56.28%), Sulphonylureas (59.44%) and Thiazolidinedione (40.24%) were commonly prescribed. A large proportion of the study population were also on antiplatelet, antihypertensive and lipid-lowering drugs prior to initial insulin use.

**CONCLUSIONS**

This study provides a contemporary description of patients with T2DM initiating insulin therapy. The high prevalence of diabetes related complications and the poor glycaemic control despite insulin therapy highlights a group of patients in need of closer attention in clinical practice.