

SUSTAINED GLYCAEMIC, LIPID AND BLOOD PRESSURE CONTROL OVER 6 YEARS IN A LARGE OUTPATIENT COHORT USING A REPEATEDLY IMPLEMENTED AGGRESSIVE TREATMENT PROTOCOL

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Results

We undertook a long term prospective cohort study to ascertain whether evidence based glycaemic, lipid and blood pressure (BP) targets could be achieved and sustained in a District General Hospital (DGH) setting. We instigated an aggressive and continuously updated treatment protocol focusing on tight HbA1c control, simplified drug regimens, statin therapy for most and BP intervention based on the AbCD system. Targets and intervention points were HbA1c <7% (and as close to 6% as possible), BP <140/80, and total cholesterol (TC) <5mM. We collected data at baseline (June 2000) for HbA1c, BP, TC and drug usage for insulin, oral hypoglycaemic, antihypertensive and lipid lowering agents. We then collected data prospectively and analysed it on an approximate annual basis. A second baseline data set was

created for all newly referred patients entering the clinic between 2000 and 2004. Results were then pooled for the 2006 analysis. Patients whose initial HbA1c was <7% were excluded.

Baseline data for 2000 showed a mean HbA1c of 9% falling to 7.8% in 2002 and 7.2% in 2003 ($p<0.05$). HbA1c was 9.6% for patients newly referred between 2000 and 2004, falling to 7.2% in 2005. HbA1c was 7.1% in 2006 for the pooled data for the whole cohort ($N=1516$) ($p<0.001$). In 2000, 23.8% of patients had a HbA1c >10%, while this had fallen to 3.3% by 2006.

In 2000 52% of patients were normotensive; mean BP 147/86, while by 2006 78% were normotensive, mean BP of 136/76 ($p<0.05$).

TC was <5mM in 51% of patients in 2000. By 2006, 95% of patients had TC<5 mM ($p<0.001$).

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Insulin use increased from 42% in 2000 to 72% in 2006. Approximately 25% of the patients had type 1 diabetes. Metformin use increased from 35 to 55% 2000 to 2006. Statin use increased from 12% in 2000 to 84% in 2006, with 10% of patients on combination therapy with ezetimibe and 2% on fibrates. Antihypertensive therapy increased from 52% in 2000 to 94% in 2006, 70% of whom were taking more than one antihypertensive.

These results compare favourably with the published evidence base e.g.

from the UKPDS, HOT and STENO-2 studies and we feel conclusively answers the question in the affirmative as to whether it is feasible in a typical DGH setting to attain and sustain good glycaemic, lipid and BP control in large numbers of patients. What is required however is a willingness on the part of clinicians and patients to use polypharmacy often from the outset, to design this treatment in the most user friendly way and to carefully explain its rationale to patients and their carers.