

EARLY 'REAL WORLD' DATA ON DAPAGLIFLOZIN:

effective glucose control, blood pressure reduction, weight loss, and reduced medication burden

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Introduction

Dapagliflozin is the first medication in the new class of sodium-glucose cotransporter 2 (SGLT2) inhibitors licensed in the UK. Improved glycaemic control and weight loss have been demonstrated in pre-registration clinical trials [1-4] but effectiveness in clinical practice has not yet been reported. We aimed to measure clinical effectiveness of dapagliflozin in real world patients.

Methods

We performed a retrospective systematic case-note audit of all patients started on dapagliflozin in the diabetes outpatient specialist clinic of a London hospital.

Study aims:

1. Measure changes in glucose control, blood pressure and weight loss in people treated with dapagliflozin.
2. Measure changes in concurrent medication use.
3. Identify baseline predictors of response to dapagliflozin.

Results

96 people with type 2 diabetes were included in the final analysis.

Glycaemic control

The mean change in HbA1c was -0.84% (-9.2 mmol/mol). 42% had an HbA1c reduction $\geq 1\%$; 29% had no reduction.

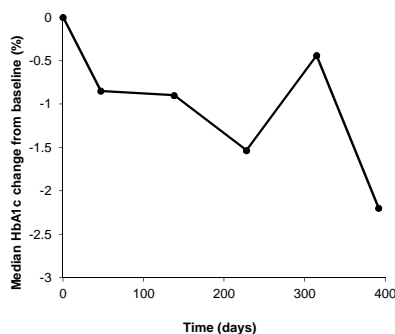


Figure 1. Median HbA1c change since initiation of dapagliflozin.

Weight

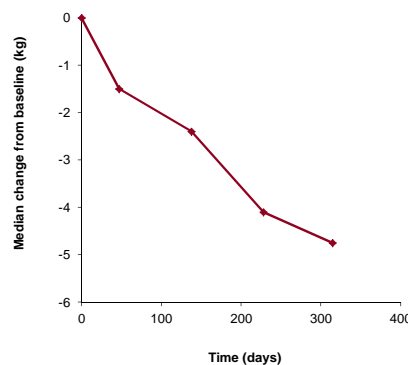


Figure 2. Median weight change since initiation of dapagliflozin.

Blood pressure

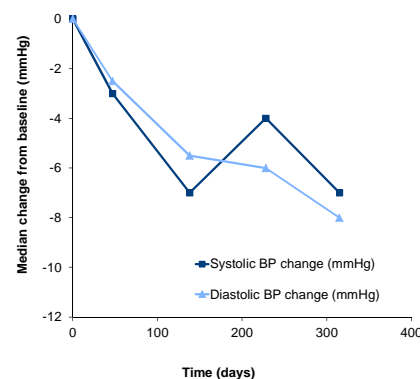


Figure 3. Median changes in blood pressure since initiation of dapagliflozin

Comparison with clinical trials

Efficacy was similar to that reported in trials of similar duration. Side effect rates were also similar but the rate of discontinuation due to side effects (22%) was higher than in trials (3-4%) [1-2].

Concurrent medication use

36 (38%) of people tolerating dapagliflozin were able to stop or reduce one or more other diabetes medication. 18 (26%) people had medication doses increased or an additional medication added.

Adverse effects

Adverse effects were recorded for 36 (38%) people. Genital candidiasis, nocturia, and polyuria were the most common adverse effects.

Predictors of response

Poor glycaemic control was the only predictor of improvement in HbA1c and higher BMI at baseline the only identified predictor of greater weight reduction.

Summary

Dapagliflozin is as effective in real world clinical practice as suggested by pre-registration trial data. It has additional benefits beyond glycaemic control; reduction of blood pressure, weight loss, and reduced need for concomitant diabetes medications. However dapagliflozin is not as well tolerated in real world patients as in participants of clinical trials.

References

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