canagliflozin vs a GLP-1RA
- 0.51 (95% CI: 0.38-0.67) for canagliflozin vs a sulphonylurea

The HR values for the composite cardiovascular endpoint were:
- 0.89 (95% CI: 0.68-1.17) for canagliflozin vs a DPP4i
- 1.03 (95% CI: 0.79-1.35) for canagliflozin vs a GLP-1RA
- 0.86 (95% CI: 0.65-1.13) for canagliflozin vs a sulphonylurea

The reduction in admissions for heart failure duplicates the results of two recent large placebo controlled randomised trials CANVAS (canagliflozin) and EMPA-REG OUTCOME (empagliflozin).[1,2]

Current UK guidance still recommends low cost hypoglycaemic agents such as sulphonylureas despite adverse cardiovascular outcome data.

These findings will help inform new diabetes guidance, and in the meantime may help GPs who are selecting hypoglycaemic agents for their patients.

DR MATTHEW LOCKYER

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Postnatal depression may have adverse effects on offspring

The children of women with severe persistent postnatal depression (PND) are at substantially increased risk of preschool behaviour problems, poor academic attainment and adolescent depression, a UK longitudinal cohort study has found.

The Avon Longitudinal Study of Parents and Children (ALSPAC) has followed up more than 14,000 children born in the Bristol area between 1991 and 1992. Mothers were asked to complete the Edinburgh Postnatal Depression Scale (EPDS) at two and eight months postpartum, and subsequently on six occasions up to 11 years postpartum.

Behaviour problems at 3.5 years of age were assessed using the Rutter preschool questionnaire. GCSE mathematics grades at the age of 16 were used as a measure of school attainment. Adolescent depression was identified at 18 years of age with a self-administered computerised interview (CIS-R).

A total of 9,848 mothers completed both the two- and eight-month postnatal assessments and were included in the study.

Postnatal depression was defined as a two month EPDS score ≥13. Depression severity was graded as moderate (EPDS score 13-14), marked (15-16) or severe (≥17). Depression was defined as persistent if the EPDS score remained above the severity threshold at the eight month assessment e.g. ≥15 for persistent marked depression.

For each of the seven categories (not depressed; moderate/marked/severe PND, not persistent; moderate/marked/severe PND, persistent) there was little change in the mean depression score after the postnatal year.

Outcome data were available for 8,287 children (4,227 boys and 4,060 girls). The results were adjusted for maternal education only. Compared with offspring of mothers who were not depressed, offspring of mothers in each of the six PND categories were significantly more likely to have behavioural problems aged 3.5 years. The risk was greatest for offspring of mothers with severe persistent depression, odds ratio (OR) 4.84 (95% CI: 2.94-7.98).

Compared with offspring of mothers who were not depressed, only offspring of mothers with severe persistent depression were at significantly increased risk of poor academic attainment aged 16, OR 2.65 (95% CI: 1.26-5.57) and adolescent depression, OR 7.44 (95% CI: 2.89-19.11).

The EPDS is a screening not a diagnostic tool. With a cut-off score of 12/13, the positive predictive value for major depression in a large English community sample was 43%.[1] It is therefore likely that in the present study associations between PND and subsequent outcomes were attenuated by inclusion of mothers who were not depressed in the PND groups.

The narrow EPDS ranges chosen do not correspond to the severity ranges suggested for clinical use (e.g. moderate: 14-19, severe: 19-30).[2] The authors acknowledge that the study is limited both by the low number of participants in the severe persistent PND category and the high attrition rate, and this is reflected in the wide confidence intervals.

Previous studies have linked PND to impaired cognitive and emotional development in offspring, subsequent poor school attainment and adolescent depression. The present study suggests that the risk of adverse outcomes is particularly high for those with severe persistent depression and the authors recommend that treatment for these patients should be prioritised.

Unfortunately, to date there has been a lack of evidence for benefits of PND treatments on child development.[3] A recent study did report high PND remission rates and apparently unimpaired offspring development at the age of two when »

mothers with persistent PND were treated with intensive home-based CBT. However, there was no usual treatment control group as the study was designed to assess the benefit of an adjunctive parenting intervention, and this was found to be no more effective than relaxation therapy.[4]

The main lesson here is that an assessment of severity is key to the effective management of postnatal depression. Those with severe persistent depression need intensive treatment (NICE recommends CBT as first-line)[5] and follow-up, although long-term improvements in child outcomes have not yet been demonstrated.

DR PHILLIP BLAND

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