Iodine supplementation is cost-saving for the health service and to society

**Background:**

- Currently in the UK there is no national guidance or policy on iodine supplementation for pregnant women.
- Previous evidence shows that iodine deficiency can lead to impaired neurodevelopment of the unborn child, which may result in a permanent loss of IQ and/or reduced educational outcomes.
- Findings from a number of studies show that iodine supplementation during pregnancy can prevent cognitive impairment.
- Here we report the results of a model-based economic evaluation, using data from published literature and expert clinical input, to compare the costs and benefits of iodine supplementation for singleton pregnant women with a mild to moderate iodine deficiency versus 'standard care' (where no supplementation is given).
Findings:

- A decision-tree model was used to carry out two analyses of the costs and benefits from a health service perspective and a wider societal perspective.
- Conservative assumptions were used regarding potential benefits, and potentially overestimating adverse outcomes.
- Iodine supplementation was shown to be ‘dominant’ in both scenarios. This means iodine supplementation saved money and improved IQ when compared to standard care.
- The analysis from the health service perspective showed a cost saving of £199 per mother and an average gain of 1.22 IQ points for the child.
- The analysis from a wider societal perspective showed a cost saving of £4476 per mother and an average gain of 1.22 IQ points for the child.
- Sensitivity analysis supported the cost-saving indication of these results in all but the most extreme scenario, i.e. assuming no effect on the child’s IQ for mothers who would be otherwise mild/moderately iodine deficient.

Recommendations for Practice

Findings suggest that iodine supplementation could save money and improve IQ. Current evidence suggests that a policy to introduce iodine supplementation during pregnancy would be beneficial to both the health service and society.

Reference