0758 MIXED TREATMENT COMPARISONS TO EVALUATE THE EFFECTIVENESS OF STRATEGIES FOR PREVENTING FIRE RELATED INJURIES IN CHILDREN WITHIN THE HOME

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Aims To identify, review and evaluate published literature investigating the effectiveness of strategies used to prevent fire related injuries in children within the home; and to conduct a mixed treatment comparison (MTC) to simultaneously produce effectiveness estimates which use the totality of the evidence base, thus facilitating decision making.

Methods A systematic review was conducted to identify and appraise the relevant comparative primary studies. These studies were classified with respect to the fire preventive strategies they compared. The data extracted were simultaneously synthesised using a MTC methodology. This approach (also known as network meta-analysis) allows estimates of the effectiveness of all interventions included in the model to be compared to one another.

An assessment of the coherence of the network was made, and covariates, such as level of deprivation, were included in the analysis to explore its impact on the estimation of effectiveness of different interventions. All models were evaluated in the WinBUGS software using Markov Chain Monte Carlo methods.

Results and conclusions Intervention categories, identified by the systematic review, included Education, Education + low cost/free equipment, Education + low cost equipment + a home safety inspection, Education + free equipment + offer of

fitting, Education + a home safety inspection, and Community campaigns. A graphical network of evidence will be presented that indicates which interventions have been compared directly to each other. The results of the MTC will also be presented, including direct probability statements regarding which intervention is the most effective.