

## Screening for depression, anxiety disorder and suicide risk in children and adolescents

### Summary

**Objective:** To evaluate the effectiveness, cost-effectiveness and budget impact of screening for depression, anxiety disorder and suicide risk in children and adolescents in Estonia.

**Methods:** To meet the objective, a literature review of the effectiveness, safety and cost-effectiveness of depression, anxiety disorder and suicide risk screening compared to no screening was composed. Estonian cost-effectiveness analysis with a one-year time horizon was performed using a decision tree model in the population of 12-years old students. Participation rates in the screening were derived from randomized controlled trial. Drug and treatment costs for depression, anxiety disorder and suicide risk were calculated using Estonian Health Insurance Fund (EHIF) data, whose perspective the analysis employed. Quality of life estimates were derived from published literature. Results were evaluated in terms of quality-adjusted life years (QALY) and incremental cost-effectiveness ratios (ICER). A budget impact analysis from the healthcare payer perspective was carried out.

**Results:** Based on the literature review, there is moderate evidence that screening for depression and suicide risk is more effective than no screening. There is no evidence of health benefits for anxiety disorder screening. The incremental cost-effectiveness ratio for the depression, anxiety disorder and suicide risk screening was €15 130 per QALY gained compared to no screening. In sensitivity analysis, the results were most influenced by the proportion of children and adolescents with depression, anxiety disorder and suicidal risk found and treated during screening, quality of life assessments and cost of screening. According to the budget impact analysis, screening would result in an additional cost of 3,6 million euros to the Estonian Health Insurance Fund in the year.

**Conclusions:** Depression, anxiety disorder and suicidal risk screening is expected to result in net health benefit in Estonia. However, to start the screening, a pilot study could first be carried out to map possible problems that should already be taken into account and avoided when implementing a nationwide screening.

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