

## P-268 - COMBINED METABOLIC AND PSYCHOLOGICAL SCREENING FOR MOOD DISORDERS IN CHILDREN WITH TYPE 1 DIABETES

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**Objectives:** To compare the diagnostic accuracy and cost-effectiveness of screening models based on glycated hemoglobin level (HbA1c) and psychometric measures in detecting mood disorders among children with type 1 diabetes (T1DM)

**Methods:** A random sample of 26% out of 632 available subjects aged 8-18 years with T1DM lasting longer than 12 months were enrolled to the study. All subjects were tested using a semi-structured clinical interview (KSADS-PL, duration = 120mins/patient) as a standard of reference for the diagnosis of major depression disorders (MDD) and mood disorders (MD). Four screening approaches evaluated by the authors were: 1- Children Depression Inventory (CDI, duration = 30mins/patient); 2- centile of HbA1c; 3- centile of HbA1c with CDI; 4- centile of HbA1c with Children's Depression Rating Scale (CDRS duration=40mins/patient). All tests were performed in all individuals and cost-effectiveness of all 4 approaches was calculated as total time needed to successfully detect one case of MD or MDD.

**Results:** The HbA1c+CDRS model was the best screening procedure for both MD and MDD. Diagnostic threshold for HbA1c was established at 93<sup>rd</sup> percentile (8.7%) for MD and 95<sup>th</sup> (9.0%) for MDD. Cut-off points for CDRS assessed after filtering by HbA1c percentile equaled 26 (MD) and 30 (MDD) points. Application of this procedure would result in a 76% workload reduction for one diagnosed patient with MD and 83% with MDD in comparison to standard screening with CDI.

**Conclusions:** Centile of HbA1c level with subsequent examination with CDRS is cost-effective procedure for screening individuals with T1D prior to psychiatric.