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ОПЫТ ПРИМЕНЕНИЯ ФОРМЫ ДЛЯ ОЦЕНКИ РИСКА РАЗВИТИЯ КАРИЕСА У ДЕТЕЙ

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EXPERIENCE OF USING THE CARIES-RISK ASSESSMENT FORM IN CHILDREN

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Резюме. Оценка риска кариеса с применением специальной формы для детей младше 6 лет согласно принципам CAMBRA была проведена у 30 детей этого возраста, обращавшихся за стоматологической помощью в ГУ «РКСП». У большинства детей, принявших участие в исследовании (73,3%) выявлен высокий риск развития кариеса.

Ключевые слова: оценка риска кариеса, форма, CAMBRA, дети.

Resume. A risk assessment of caries development was carried out using Caries-Risk Assessment Form for 0-5 Years Old in 30 children under the age of 6 years who applied for dental care at the Republican Dental Clinic. According to CAMBRA principles, the majority (73.3%) of children participating in the study had a high risk of caries development.

Keywords: Caries Risk Assessment, form, CAMBRA, children.

Introduction. The main goal of the pediatric dentist is to save the dental health of children patients. The cornerstone is an individual approach to each child, with the creation of a prevention and treatment plan taking into account personal risk and protective factors. The most common oral pathology in children is dental caries and many methods are currently proposed for the individual assessment of its risk. One of the most popular protocols currently in the world is the application of Caries-Risk Assessment Forms as a part of CAMBRA (Caries Management By Risk Assessment).

CAMBRA is a combination of clinical protocols that allows both to assess the risk of caries in a patient and to develop an individual treatment and prevention plan.

Caries Risk Assessment (CRA) is based on an analysis of 3 groups of factors: socio-biological, protective and clinical. Special Caries-Risk Assessment Forms have been developed for people aged 0-5 years and 6 years and older. Based on the totality of the data obtained, the dentist determines a low, medium or high risk of caries in the patient.

In accordance with a determined risk of developing caries for a patient, one of the Caries Management Pathways (CMP) should be selected, on the basis of which an individual treatment and prevention plan is created [1, 2, 3].

Aim: to assess the possibility of using the Caries-Risk Assessment Forms at a pediatric dental appointment and assess with their help the risk of caries in children receiving dental care at the Republican Dental Clinic, Minsk.

Objectives:

1. To assess the possibility of using the Caries-Risk Assessment Forms at a pediatric dental appointment.

2. To assess with use of Caries-Risk Assessment Forms the risk of caries in children receiving dental care at the Republican Dental Clinic, Minsk.

Materials and methods. The Caries-Risk Assessment Form for 0-5 years old children (fig.1) was adopted from The Reference Manual of Pediatric Dentistry, AAPD (American Academy of Pediatric Dentistry), 2019 [3] and translated into Russian to facilitate interaction with patients and their parents.

A risk assessment of caries development was carried out using this Form in 20 children under the age of 6 years who applied for dental care at the Republican Dental Clinic in the period: December of 2019 – March of 2020. Dental examination of every patient was done after professional oral hygiene.

All patients and their parents received individual recommendations in home oral hygiene, diet and check-up frequency.

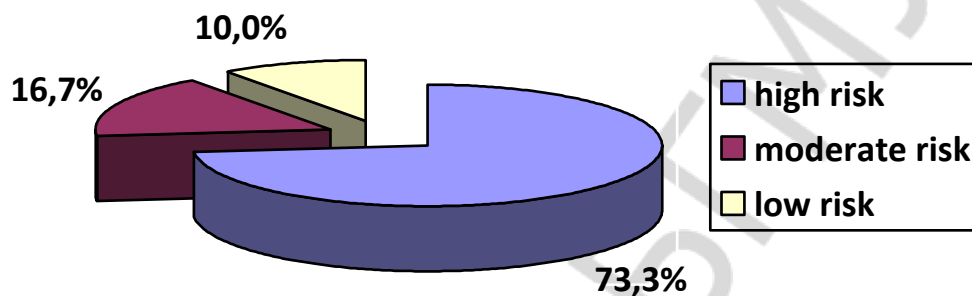
Table 1. Caries-Risk Assessment Form for 0-5 years old children

Risk factors, social/biological	High risk	Moderate risk	Low risk
Mother/primary caregiver has active dental caries	Yes		
Parent/caregiver has life-time of poverty, low health literacy	Yes		
Child has frequent exposure (>3 times/day) between meal sugar-containing snacks or beverages per day	Yes		
Child uses bottle or non-spill cup containing natural or added sugar frequently, between meals and/or at bedtime	Yes		
Child is a recent immigrant		Yes	
Child has special health care needs		Yes	
Protective Factors			
Child receives optimally fluoridated drinking water or fluoride supplements			Yes
Child has teeth brushed daily with fluoridated toothpaste			Yes
Child receives topical fluoride from health professional			Yes
Child has dental home/regular dental care			Yes
Clinical Findings			
Child has non-cavitated (incipient/white spot) caries or enamel defects	Yes		
Child has visible cavities or fillings or missing teeth due to caries	Yes		
Child has visible plaque on teeth	Yes		

Results and discussion. Identification of risk factors, in particular, the level of sanitary literacy of parents, the socio-economic status of the family and the nature of the child's snacking, presented the greatest difficulty in applying the Caries-Risk Assessment Form for 0-5 years old children. Some mothers visited the dentist more than 6 months ago, which also required an examination of these persons to decide on the presence / absence of active caries in them.

The controversial criteria for determining the health literacy of parents and dental home were also a problem during this research.

According to the results, the majority of children participating in the study - 22 people (73.3%) - were found to have a high risk of caries according to CAMBRA, which is significantly higher ($\chi^2 = 19.5$ and $\chi^2 = 24.8$, respectively; $p < 0.001$) the proportion of people with a moderate risk - 5 people (16.7%) - and a low risk - 3 people (10.0%) - of tooth decay (Diagram 2).



Diagr. 1 – Children distribution in accordance with risk of caries

The results can be partially explained by the fact that the Republican Dental Clinic accepts children not only according to the territorial principle, but also it is the clinical base of the department of pediatric dentistry of EI “Belarusian State Medical University”, which determines a significant proportion of referred patients.

Conclusion:

1 According to the results of this study, the Caries-Risk Assessment Form for 0-5 years old children can be used during pediatric dental visit as one of the methods for assessing the risk of caries in children of the appropriate age.

2 The greatest difficulty in using this system is the correct assessment of risk factors.

3 According to CAMBRA principles, the majority (73.3%) of children participating in the study had a high risk of developing caries.

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