

CPG MANAGEMENT OF EARLY CHILDHOOD CARIES

DR NUR DIYANA RAMLI

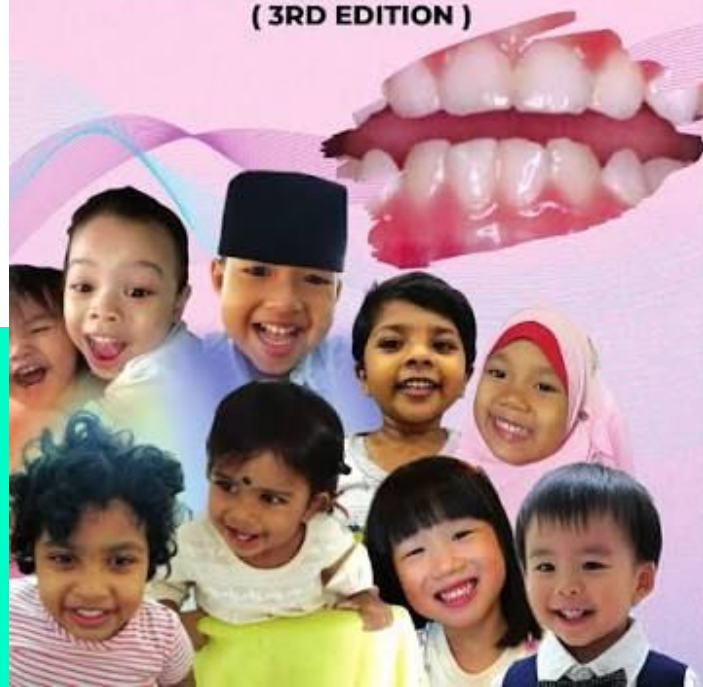


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MINISTRY OF HEALTH MALAYSIA
ORAL HEALTH PROGRAMME

CLINICAL PRACTICE GUIDELINES

MANAGEMENT OF EARLY CHILDHOOD CARIES (3RD EDITION)

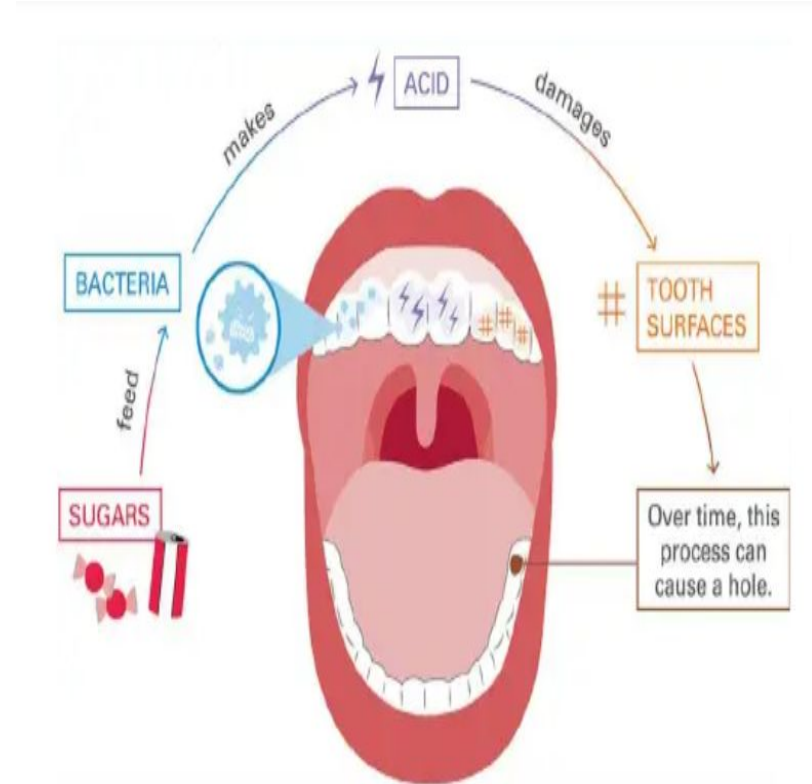


OUTLINE OF PRESENTATION

1. **INTRODUCTION ; WHAT IS ECC?**
2. **WHAT IS THE RISK FACTOR?**
3. **HOW TO CHECK?**
4. **HOW TO PREVENT ECC?**
5. **WHAT IS THE TREATMENT**
6. **TAKE HOME MESSAGE**

Early childhood caries, formerly referred to as **nursing bottle caries** or baby bottle tooth decay is a significant chronic disease of childhood.

Its multifactorial in origin, and the notion that the principal aetiology is inappropriate feeding modalities is no longer tenable, hence the adoption of the name to ECC to raise appropriate awareness.



EPIDEMIOLOGY IN MALAYSIA

The National Oral Health Survey of Preschool Children in Malaysia (NOHPS) reported a small decreasing trend in caries prevalence among preschool children with a prevalence of **76.2% in 2005** and **71.2%** in the latest survey in **2015**. (Similarly, there was a slow decreasing trend in caries severity in the past two decades with the **dft in 1995** being reported to **be 5.8**, and in **2015** it was **4.8** (NOHPS, 2015)

DEFINITION OF ECC

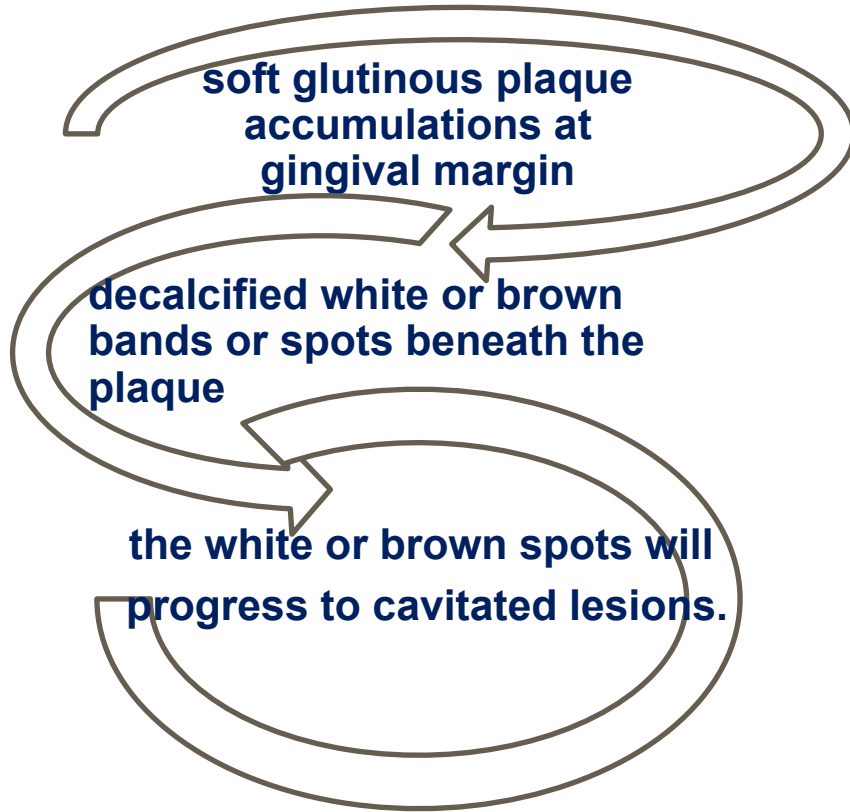
The presence of a primary tooth with **one or more carious (non-cavitated or cavitated lesions), missing (due to caries), or filled surfaces in a child under the age of six years (72 months)**

dmf < 6 years

Definition of SEVERE-ECC

AGE	dmf
<3 years	Any signs of smooth surface caries
3 years	$\geq$ dmf 4
4 years	$\geq$ dmf 5
5 years	$\geq$ dmf 6

CLINICAL PRESENTATION



Normal Healthy
Primary Teeth



Chalky
White Spots



Brown Spots



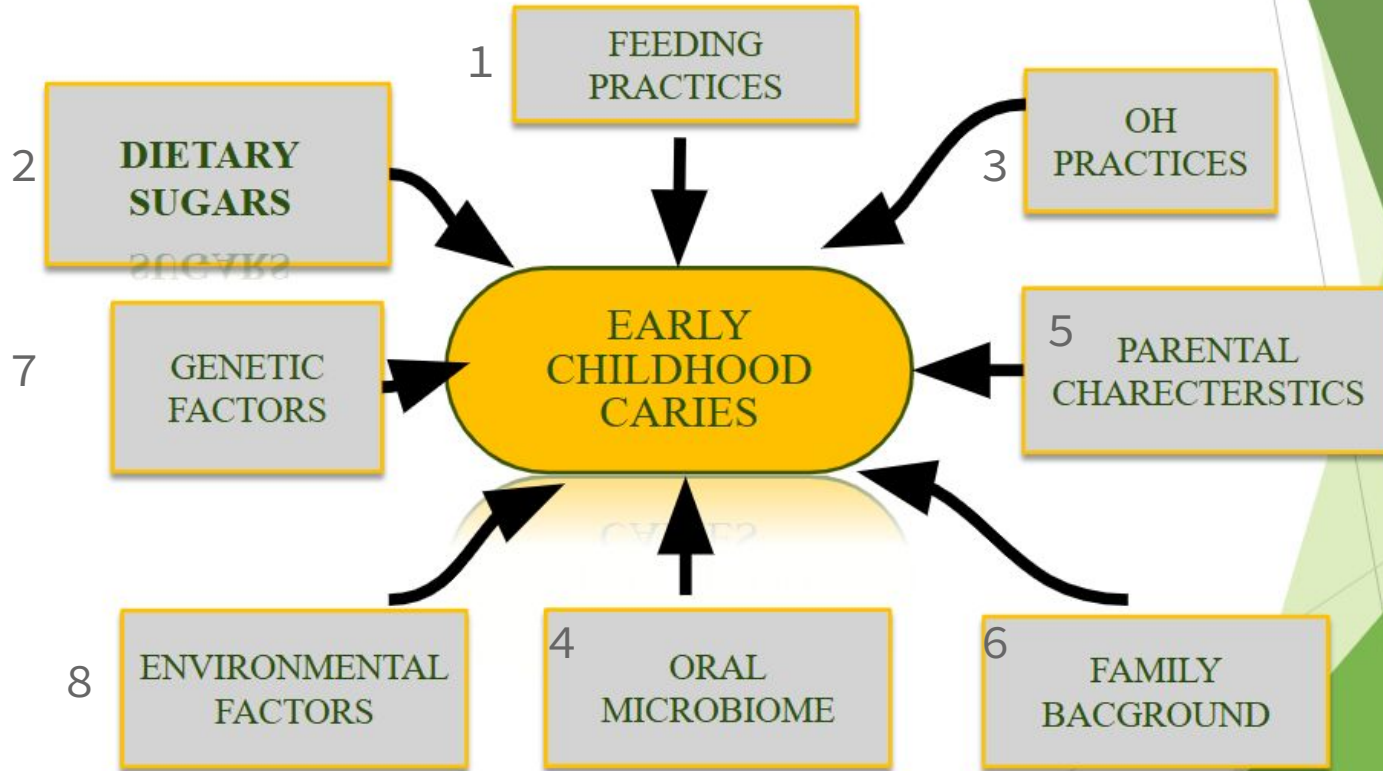
Severe Decay



2. WHAT IS THE RISK FACTOR?



RISK FACTORS



1. FEEDING PRACTICES

Feeding practices of infants include breastfeeding and/or bottle feeding is a risk factor for ECC

Recommendation 1

- Breastfeeding among infants should be encouraged up to two years of age.
- Bottle feeding among infants should be discontinued after 12 months of age.

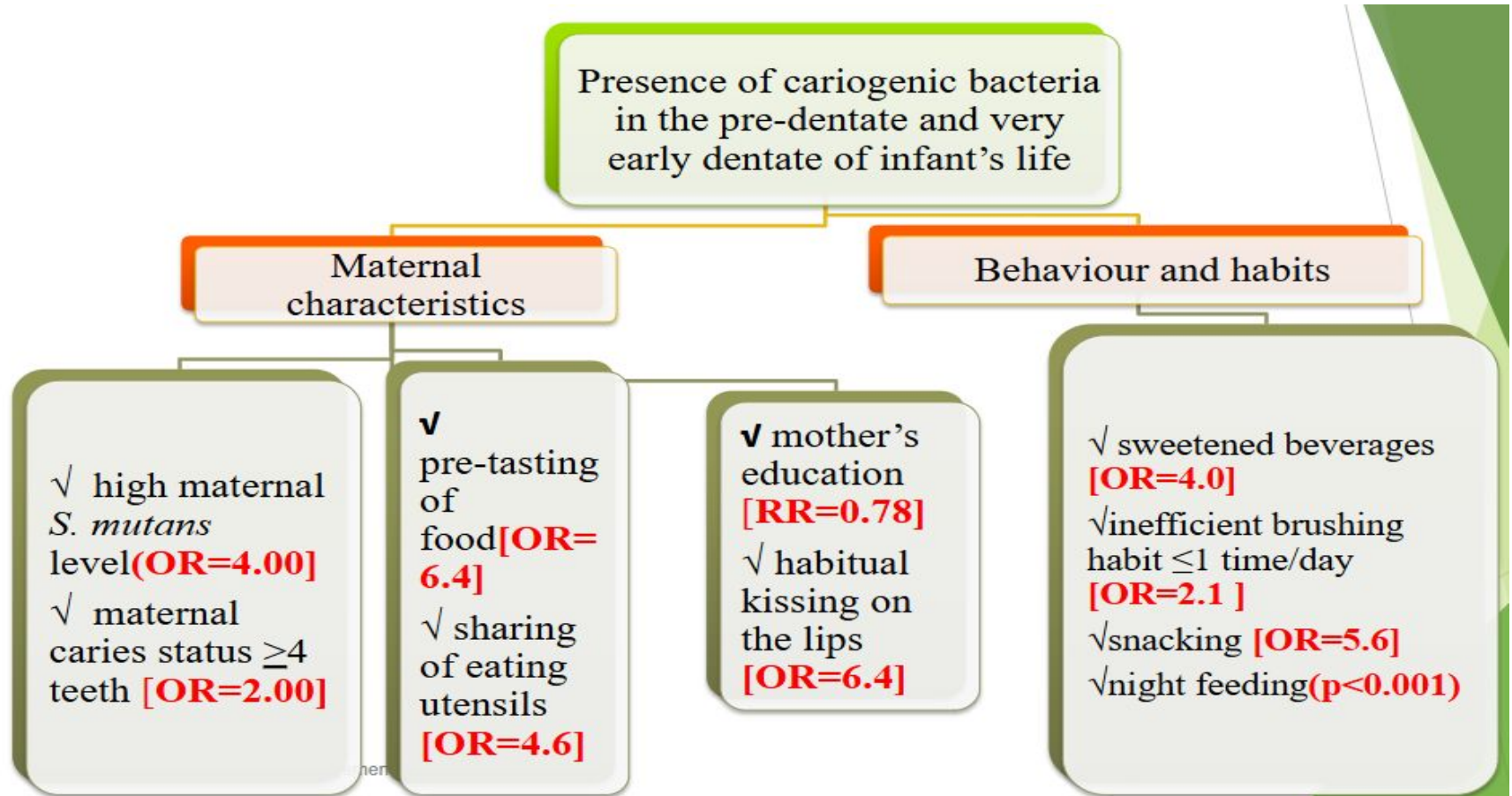
2. DIETARY SUGARS

Dietary Sugars	Risk of ECC
High intake of dietary sugars group	7.15 risk of ECC
Bottle containing fruit juices or soft drinks at 12 months of age	1.41 risk of ECC
Consumption of complementary foods with high density of added sugars	1.43 risk of ECC
Consumption of candies more than once a week	Higher development of caries(HR 6.83[maxillary 2nd molars]; HR8.13[mandibular 2 nd molars
Consumption of sweet drinks	Higher dental caries (OR=1.1)
Consumption of food and drink with free sugars	Positive association to dental caries (OR=1.33-1.92)

Recommendation 2

- Consumption of free sugars among children should be limited in daily diet.

3. ORAL MICROBIOME



4. POOR OH PRACTICES

**Presence of visible
dental
plaque[OR=3.10]**

**Poor oral
hygiene(OR=3.12)**

**Poor OH
Practices**

**Late beginning of
tooth brushing
($p<0.05$)**

**Unsupervised tooth
brushing($p<0.01$)**

5 **Parental Charecteristics:**

- young age
- poor oral hygiene
- irregular dental visits
- high-sugar diets
- maternal psychological distress due to challenging child temperament

6 **Family back ground**

- low parental education
- unemployment
- low income
- single-parent households

7 **Genetics/Underlying medical condition**

- Enamel defects
- Taking sugary medication

Child

- increased risk of ECC in preterm versus full-term birth (OR=1.59)

8. PROTECTIVE FACTORS

FOODS AND DRINKS

- **Milk and cheese** are known to mitigate metabolic acids and lower plaque acidity, reducing their cariogenic potential.

A combination of **different foods that is high in fruits and vegetables** is associated with reduced risk of NCDs. This may also include ECC.

A study found prevention of ECC was significantly affected by **consumption of whole fruit** (OR=0.47,) and **milk** (OR=0.50, 95%).^{(Zaki et al., 2015) level III}

In a recent SR, **daily consumption of water and dairy products** was reported to be protective against ECC..^{(Mahboobi et al., 2021) level II-1}

PROTECTIVE FACTORS

SALIVA is one of the innate defense systems of the human body
Protects teeth by several mechanisms:

- 1) The physical properties
 - pH and buffering capacity
- 2) Chemical properties
 - Inorganic ions, protein & peptides
 - Neutralise low plaque pH
 - Rinse food debris
 - Remove microorganisms and sugar aggregation
 - Improve tooth enamel remineralisation
- 3) Antibacterial and antimicrobial properties

3. HOW TO CHECK?



Examination And Diagnosis

- *Carries detection and diagnosis is fundamental in oral disease management.*
- *Involves the identification of changes in enamel, dentine, or other dental tissues.*

HISTORY TAKING

- *Patient's assessment starts with **addressing the patient's complaint, thorough history taking, comprehensive physical examination and radiographic investigations.***

Patient's
**complaint or
parents' concern**

Family history - any
family member with
untreated caries

Medical history - any
relevant medical illness
/ syndrome / disability

Dental history -
frequency of
visits to the
dentist

Social history - social
economic status/
parents' level of
education

Habit – oral hygiene
practice / dietary /
feeding practices

A) Visual Examination

- ✓ *Visual examination is the standard method used for caries diagnosis.*
- ✓ *In this method, a dental examination is done under a light source on clean and dry teeth.*

EXAMINATION AND DIAGNOSIS

Recommendation 3

- Visual examination should be considered for the diagnosis of initial occlusal caries, advanced occlusal caries and advanced proximal caries.

B) Radiographic Examination

- ✓ *Radiography is commonly used and generally accepted as an adjunct in caries diagnosis.*
- ✓ *Bitewing radiography provides an additional diagnostic yield, in particular for proximal dentinal caries detection or if proximal surfaces cannot be visualised or probed.*
- ✓ *Patients without evidence of disease and with open proximal contacts may not require a radiographic examination at this time.*

Recommendation 4

- Bitewing radiographic examination should be considered for the diagnosis of initial proximal caries.

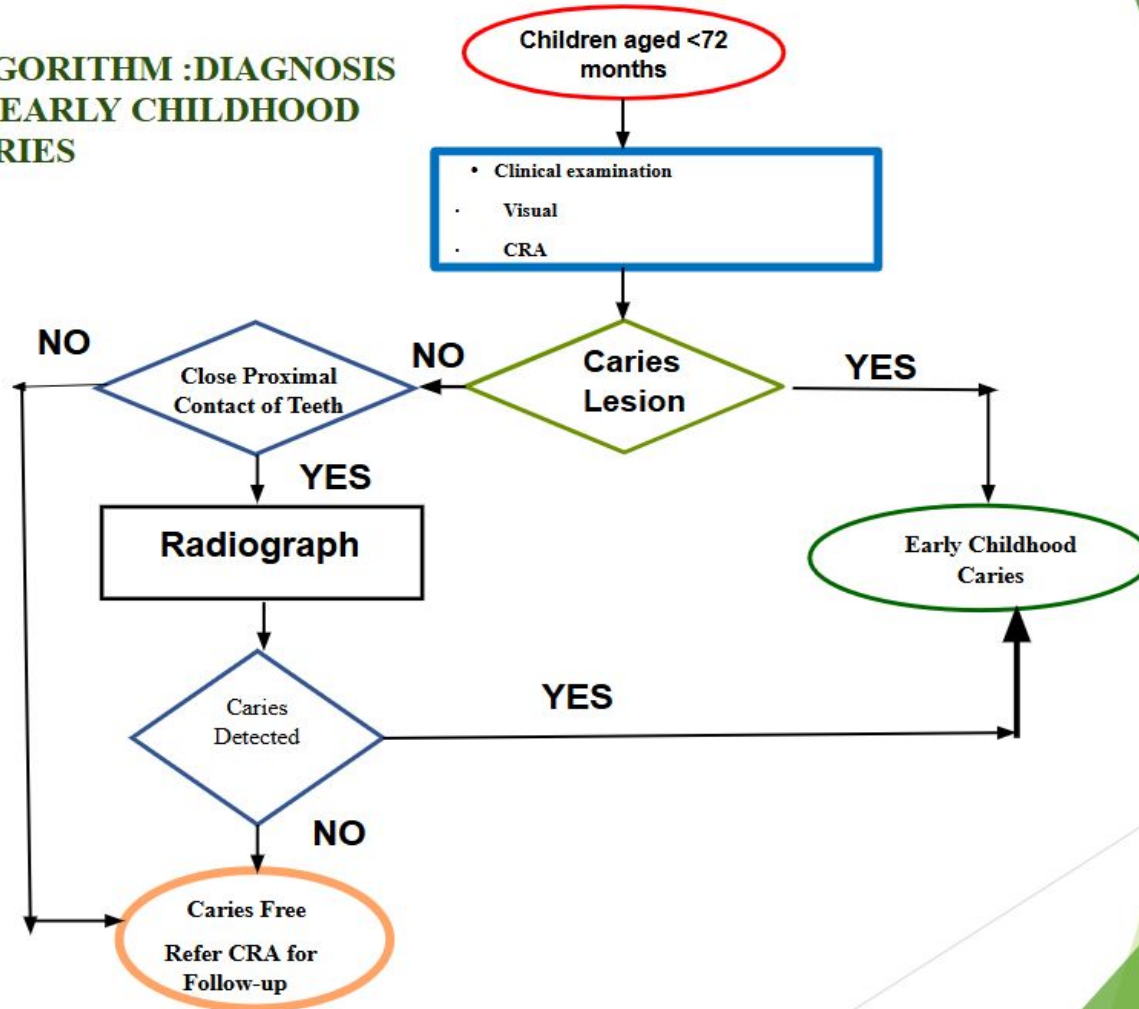
C) International Caries Detection and Assessment System

✓ *Visual inspection is carried out with visual scoring systems to aid in the caries diagnosis process.*

Recommendation 5

- International Caries Detection and Assessment System (ICDAS) should be used for caries diagnosis.

ALGORITHM :DIAGNOSIS OF EARLY CHILDHOOD CARIES



4. HOW TO PREVENT ECC?



OUTLINE OF PRESENTATION

INTRODUCTION

DIET ADVICE

PLAQUE CONTROL

ORAL HEALTH EDUCATION

OTHER PREVENTIVE PROGRAMME

- INTERDISCIPLINARY COOPERATION In PREVENTIVE ORAL HYGINE PROGRAMME
- MOTIVATIONAL INTERVIEWING
- ANTICIPATORY GUIDANCE

CARIES RISK ASSESSMENT

TOPICAL FLUORIDE

FISSURE SEALANT

CASEIN PHOSPHOPEPTIDE
AMORPHOUS CASEIN
PHOSPHATE

OTHER PREVENTIVE AGENTS

WATER FLUORIDATION

1. DIET ADVICE

AAPD recommends preventive oral health intervention for infants and children based on age-group^{AAPD, 2013}

a. for age 6-12 months:

- provide oral hygiene counselling for parents, including the implication of oral health of caregiver
- assess of appropriateness of feeding practices, including bottle and breastfeeding and provide counselling as indicated, provide dietary counselling related to oral health

b. for age 12 - 24 months:

- repeat the procedure for ages 6 to 12 months every six months or as indicated by the child's individual needs or risk status or susceptibility to disease
- assess of appropriateness of feeding practices including bottle and breastfeeding and no-spill training cups and provide counselling as indicated

c. for age 2 - 6 years:

- repeat the procedures for ages 12 to 24 months every six months or as indicated by the child's individual needs or risk status or susceptibility to disease
- assess diet and body mass index to identify patterns placing patients at increased risk for dental caries or obesity. Provide counselling or appropriate referral to a paediatric or nutritional specialist as indicated.

RECOMMENDATION 6

- Advice on diet should be provided to pregnant women, new mothers and other primary caregivers in preventing ECC.
- Interdisciplinary approaches by healthcare professionals in dental, medical, nursing and allied health setting should be practiced for formula feeding and bottle cessation in the prevention of ECC, overweight and obesity.

2. PLAQUE CONTROL

- **Chemical agents** such as chlorhexidine (gels, varnish and mouthrinses), xylitol (tablets, wipes and confection), and 0.3% triclosan varnish play a role in plaque control and preventing dental **caries as adjunct to proper mechanical plaque control** methods.(Wang et al., 2017; Vyas et al., 2021)

Supervised toothbrushing

Supervised toothbrushing by a parent twice daily, using a soft toothbrush of age-appropriate size. In children under the age of three, a smear or rice-sized amount of fluoridated toothpaste should be used. In children ages three to six, a pea-sized amount of fluoridated toothpaste should be used. (AAPD, 2016b)

NHS England suggested that when brushing, children need to be helped and supervised by an adult, until at least seven years of age. (NHSE, 2021)

RECOMMENDATION 7

- **Mechanical plaque** control with **electric or manual** toothbrushes should be used in removing dental plaque to prevent ECC.
- **Chemical agents** may be considered as an **adjunct** with mechanical plaque control in removing dental plaque to prevent ECC.

Fluoride Toothpaste

- AAPD recommends that toothbrushing with fluoridated toothpaste should start as soon as the first teeth arrive. (AAPD, 2021c)
- The current guidelines from AAPD and SDCEP do not strongly endorse flossing as an effective preventive measure for ECC. (AAPD, 2016b, SDCEP, 2018)
- The CPG DG opines that the emphasis should be on other evidence-based interventions such as tooth brushing, fluoride toothpaste, reducing sugar intake, and professional fluoride applications.

RECOMMENDATION 8

- **Tooth brushing** to prevent ECC should be:
 - **commenced on eruption** of primary teeth
 - performed **at least twice daily** including **last thing at night**
 - done with toothpaste containing **1000 to 1500 ppm Fluoride for children:**
 - **<3 years** old apply with a **smear or rice-sized** amount
 - **≥ 3 to 6 years** old, use a **pea-sized** amount
 - supervised by adults
- **Toothpaste** should be **spit out** without rinsing after tooth brushing.

3. ORAL HEALTH EDUCATION

Oral health education (OHE) is the process of providing individuals with personally relevant **information** about their oral health based on scientific principles and evidence. It involves motivating, teaching and training both **individuals and small groups**

Motivational interviewing (MI) is a collaborative communicative communication style that is person-centred and aimed at **improving health behaviours** by invoking intrinsic motivation to make long-term behavioural changes and has been used in the prevention of ECC.

Anticipatory guidance (AG) is a **proactive development counselling** that addresses physical, emotional, psychological and **developmental changes** in children during the interval between health supervision visits. It also complements a risk assessment that addresses protective factors aimed at preventing oral health problems

Anticipatory Guidance in Pediatric Dentistry

Anticipatory guidance is a proactive, age-specific counseling approach where the pediatric dentist gives parents/caregivers information and advice before a child reaches a developmental stage or risk period, so they can prevent oral health problems rather than just treat them.

Purpose

- Preventive: focus – stop-disease before it occurs
- Prepare parents for changes in their child's oral health needs
- Support positive behaviors in oral hygiene, diet, and safety

INFANCY (0–1 yr)

- Dental home establishment by age-1
- Cleaning gums
- Avoiding putting baby to bed with bte
- Teething care
- Fluoride exposure



TODDLERS (1–3 yrs)

- Brushing twice daily with smear of fluoridated toothpaste
- Diet counseling (limit sugary snacks/drinks)
- Managing teething discomfort
- Injury prevention (falls)



PRESCHOOL (3–5 yrs)

- Pea-sized toothpaste
- Regular dental visits
- Discouraging thumb sucking/pacifier use beyond age-3
- Sealant discussion



ADOLESCENTS (12–18 yrs)

- Oral hygiene reinforcement
- Orthodontic care
- Diet & sports protection
- Discussion on tobacco/vaping
- Oral piercings
- Body image influences on dental habits



- Distinct approaches* for pregnant mothers in their second and third trimesters vs a control group**, the follow-up at 24 months assessed whether the children were caries-free showed: Deghatipour et al., 2021 level II-1
 - high chances of being caries-free in the comprehensive intervention group (OR=4.54, 95% CI 1.58 to 12.94) and face to face by PHCP (OR=3.16, 95% CI 1.16 to 8.57)
 - NS difference in social network and group discussion

*comprehensive intervention, performing group discussion sessions, face to face advice by Primary Healthcare Provider (PHCP), social networking

**which received routine maternal care

RECOMMENDATION 9

- Oral health education should be provided to expectant mothers, new mothers and caregivers for preventing early childhood caries.

RECOMMENDATION 10

- Oral health education intervention adjunct with social stories may be considered in promoting oral health-related behaviours among young children with special healthcare needs to prevent early childhood caries.

RECOMMENDATION 11

- **Interdisciplinary** cooperation between paediatric cardiologist, paediatrician, paediatric dental specialist and dentist should be **implemented** to prevent ECC effectively **among the children with congenital heart disease.**

MOTIVATIONAL INTERVIEWING

Recent meta-analysis in children comparing MI versus no treatment or other types of oral health education with follow up period from 4 weeks to 3 years, demonstrated a **significant improvement in prevention of dmfs among children with high caries experience in the MI group** (dmfs= 3.15, 95% CI -6.14 to -0.17): Colvara et al., 2021 level I

RECOMMENDATION 12

- **Motivational interviewing** should be conducted on parents of children with high risk for early childhood caries **by trained oral health professionals.**

ANTICIPATORY GUIDANCE

Anticipatory guidance is the process of providing practical developmentally appropriate health information about their children to parents so that they know what to expect during the child's current and approaching stage of development. Providing anticipatory guidance on oral health helps parents to understand the value of good oral health and be better prepared to take the appropriate action to promote and maintain the oral health of their children. The process may be guided by some key trigger questions and based on the answers given; the relevant information or advice is given. With this information, parents can help prevent or reduce tooth decay in infants and children.

Trigger Questions	Take Home Messages	Anticipatory Guidance for Parents/ Caregivers
Infancy Birth to 6 months		
1. How is your own oral health?	- Bacteria that cause tooth decay (from unfilled cavities in the mother) can be passed from the parent to the infant via saliva. - Transmission can occur through sharing food and eating utensils.	Avoid testing the temperature of the bottle with the mouth, sharing utensils or cleaning a pacifier or a bottle that has fallen with saliva before giving it back to the infant.
2. How is feeding going?	Mother's milk or breastfeeding is the best for your baby in the first 6 months of life.	Hold the infant while feeding. Never prop the bottle or put the baby to bed with a bottle.
3. Do you put your infant to bed with a bottle? What is in the bottle?	Milk left to pool in the infant's mouth may lead to development of early childhood caries when teeth erupt.	Do not use the bottle as a pacifier. Try singing, rocking, infant massage or a security blanket to put your baby to sleep.
4. Are you cleaning your infant's mouth? How often?	Your infant's mouth should be cleaned after every feed.	Clean baby's mouth after feeding with a clean, damp washcloth or gauze pad.
5. Does your infant use a pacifier?	Thumb sucking before the age of two is normal and harmless.	Use only a clean pacifier and never dip it in honey or anything sweet.
6. Does she suck her thumb or finger?		Never tie a pacifier around

RECOMMENDATION 13

- Anticipatory guidance should be given to all parents and caregivers of children as early as afterbirth to prevent ECC.

CARIES RISK ASSESSMENT

H. PENILAIAN RISIKO KARIES (Tandakan ✓ jika berkaitan)

Langkah 1: Penilaian Pengalaman Karies Semasa

Pemeriksaan	Sound (Kod 0)	Karies Awal (Kod E)	Karies (Kod 1)
Tandakan Kod yang Tertinggi			

Langkah 2: Penilaian Faktor Risiko

- ☐ Plak yang Boleh Dilihat (Gred C dan E)
- ☐ Kesusakan Gigi
- ☐ Terdapat Apliance Pergigian
- ☐ Tidak Terdedah Kepada Fluorida
- ☐ Ambil Makanan Bergula Antara Waktu Makan
- ☐ Kompromi Perubatan / Kesihatan
- ☐ Ibu / Adik-beradik Mempunyai Riwayat Karies
- ☐ Mulut Kering

Langkah 3 : Petunjuk Risiko Karies

Bulatkan : Rendah/Sederhana/Tinggi

Bilangan Faktor Risiko	Sound (Kod 0)	Karies Awal (Kod E)	Karies (Kod 1)
☐ 0	Rendah	Sederhana	Sederhana
☐ 1-2	Rendah	Sederhana	Tinggi
☐ 3 atau lebih	Sederhana	Tinggi	Tinggi

Langkah 4: Lawatan Susulan

☐ 3 Bulan ☐ 6 Bulan ☐ 12 Bulan

Table 1. Caries-risk Assessment Form for 0-5 Years Old

Use of this tool will help the health care provider assess the child's risk for developing caries lesions. In addition, reviewing specific factors will help the practitioner and parent understand the variable influences that contribute to or protect from dental caries.

Factors	High risk	Moderate risk	Low risk
<i>Risk factors, social/behavioral/medical</i>			
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 nonspill 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 ^α		Yes	
<i>Risk factors, clinical</i>			
Child has visible plaque on teeth	Yes		
Child presents with dental enamel defects	Yes		
<i>Protective factors</i>			
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
<i>Disease indicators^β</i>			
Child has noncavitated (incipient/white spot) caries lesions	Yes		
Child has visible caries lesions	Yes		
Child has recent restorations or missing teeth due to caries	Yes		

^α Practitioners may choose a different risk level based on specific medical diagnosis and unique circumstances, especially conditions that affect motor coordination or cooperation.

^β While these do not cause caries directly or indirectly, they indicate presence of factors that do.

Instructions: Circle "Yes" that corresponds with those conditions applying to a specific patient. Use the circled responses to visualize the balance among risk factors, protective factors, and disease indicators. Use this balance or imbalance, together with clinical judgment, to assign a caries risk level of low, moderate, or high based on the preponderance of factors for the individual. Clinical judgment may justify the weighting of one factor (e.g., heavy plaque on the teeth) more than others.

Overall assessment of the child's dental caries risk: High ☐ Moderate ☐ Low ☐

Table 3. Example of Caries Management Pathways for 0-5 Years Old

Risk category	Diagnostics	Preventive interventions			Restorative interventions
		Fluoride	Dietary counseling	Sealants	
Low risk	– Recall every six to 12 months – Radiographs every 12 to 24 months	– Drink optimally-fluoridated water – Twice daily brushing with fluoridated toothpaste	Yes	Yes	– Surveillance
Moderate risk	– Recall every six months – Radiographs every six to 12 months	– Drink optimally-fluoridated water (alternatively, take fluoride supplements with fluoride-deficient water supplies) – Twice daily brushing with fluoridated toothpaste – Professional topical treatment every six months	Yes	Yes	– Active surveillance of non-cavitated (white spot) caries lesions – Restore cavitated or enlarging caries lesions
High risk	– Recall every three months – Radiographs every six months	– Drink optimally-fluoridated water (alternatively, take fluoride supplements with fluoride-deficient water supplies) – Twice daily brushing with fluoridated toothpaste – Professional topical treatment every three months – Silver diamine fluoride on cavitated lesions	Yes	Yes	– Active surveillance of non-cavitated (white spot) caries lesions – Restore cavitated or enlarging caries lesions – Interim therapeutic restorations (ITR) may be used until permanent restorations can be placed

Notes for caries management pathways table:

Twice daily brushing: Parental supervision of a “smear” amount of fluoridated toothpaste for children under age three, pea-size amount for children ages three through five.

Surveillance: Periodic monitoring for signs of caries progression; active surveillance: active measures by parents and oral health professionals to reduce cariogenic environment and monitor possible caries progression.

Silver diamine fluoride: Use of 38 percent silver diamine fluoride to assist in arresting caries lesions; informed consent: particularly highlighting expected staining of treated lesions.

Sealants: The decision to seal primary and permanent molars should account for both the individual-level and tooth-level risks.

CARIES RISK ASSESSMENT

RECOMMENDATION 14

- Caries risk assessment should be done for children aged six years old and below.

TOPICAL FLUORIDE

RECOMMENDATION 15

- Diflouroosilane (0.9%) three monthly or sodium fluoride varnish (5%) six monthly application should be used in children under the age of six for prevention of ECC.

FISSURE SEALANT

Consideration for placement of fissure sealant in primary molar amongst patients with ECC based on:

- caries risk
- plaque control
- ability to isolate tooth effectively
- patient cooperation

CASEIN PHOSPHOPEPTIDE-AMORPHOUS CALCIUM PHOSPHATE

- ▶ Casein phosphopeptide-amorphous calcium phosphate (CPP-ACP) is a topical cream that is water-based and free of sugar. It contains milk protein derived from casein.
- ▶ The effects of daily application of a 10% weight per volume (w/v) CPP-ACP paste combined with regular tooth brushing using a fluoride toothpaste, **did not show any significant additional benefits in preventing tooth decay** (caries) on high-risk pre-school children with primary dentition for a period of one year. Sitthisetthapong et al., 2015) level I



OTHER PREVENTIVE MATERIAL

Non-fluoride agents such as Xylitol, Chlorhexidine, Arginine-containing mint confection and triclosan varnish have been used to prevent ECC.

A SR examining available non-fluoride agents in preventing ECC revealed that **only one study supported the daily use of xylitol wipes in controlling caries**. In another study in the same SR found that Arginine-containing mint confection and 0.3% triclosan varnish had the potential to reduce caries development in primary teeth but the evidence was at high risk of bias. ^{(Wang et al., 2017) level I} However, the results had to be interpreted with caution as the included studies did not specify statistical measures.

The AAPD only supports the use of xylitol for use as a non-cariogenic sugar substitute and not as a remineralizing agent in ECC. ^(AAPD, 2020b)

WATER FLUORIDATION



Water fluoridation, a public health initiative designed to decrease tooth decay, plays a crucial role in preventing early childhood caries.



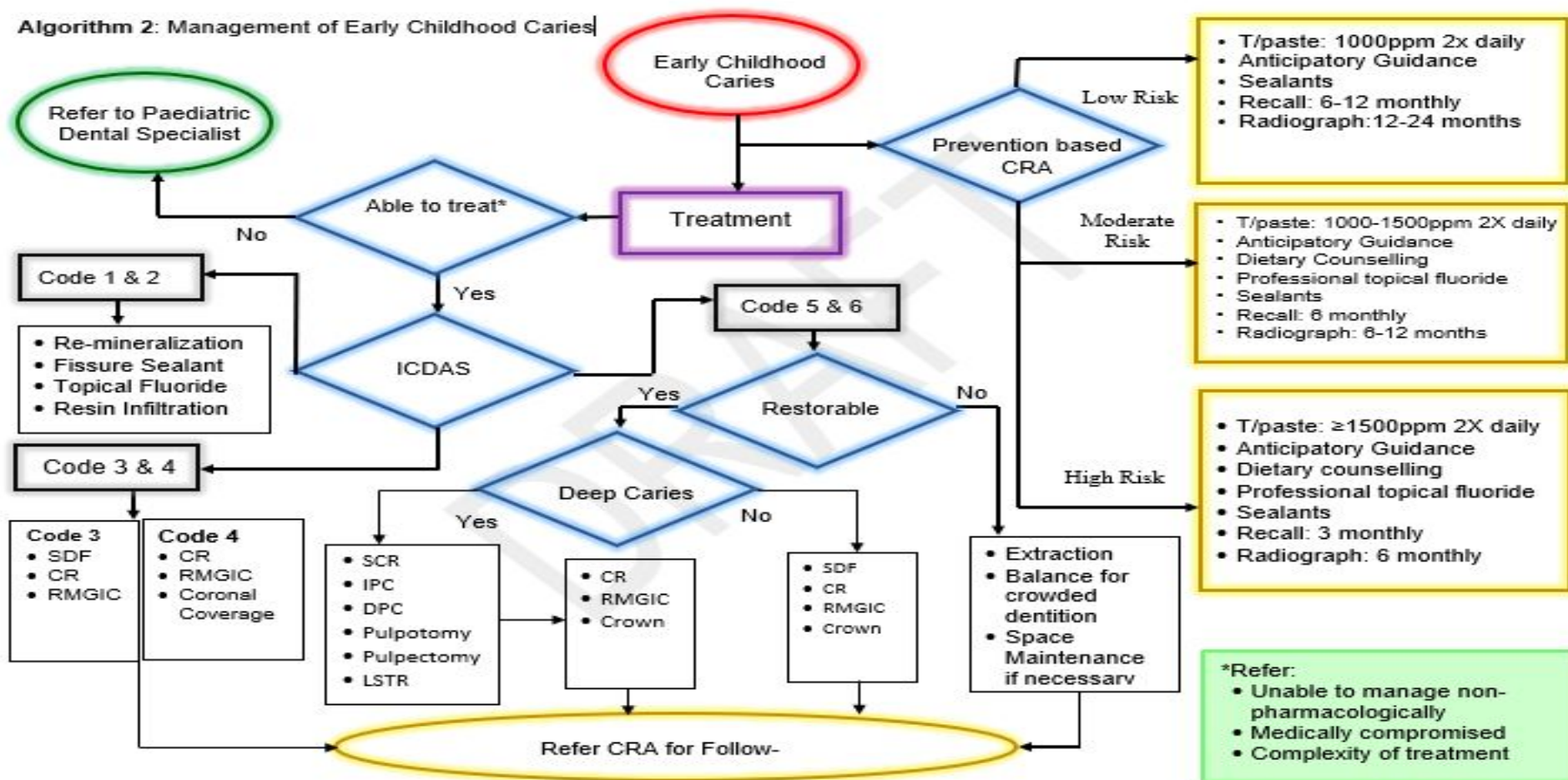
Cochrane SR. The review found that fluoridated water: (Iheozor-Ejiofor et al., 2015)
level I

- reduced the prevalence of caries in children by 35% and reductions in dmft of 1.81 (95% CI 1.31 to 2.31)
- increased the caries free children by 15% (95% CI 11% to 19%)



However, the primary studies were mostly conducted before 1975, a time before the widespread adoption of fluoride toothpaste and before other major shifts in oral health practices and public health measures.

Algorithm 2: Management of Early Childhood Caries



6.TAKE HOME MESSAGE

1. DUTY KKIA/ IM- OFFICER NEED TO GIVE OHE,AG
 - a. FEEDING
 - b. TOOTHBRUSHING, FLUORIDATED TOOTHPASTE
 - c. CARIES
 - d. DENTAL VISIT FOR FV
2. CRA FOR ALL TODDLER AGE < 6 YEARS OLD, GIVE APPT CARD LP1
 - a. HIGH RISK- 3 MONTHLY FOR FV
 - b. MODERATE RISK - 6 MONTHLY
 - c. LOW RISK - 6-12 MONTHLY



5. WHAT IS THE TREATMENT



TREATMENT MODALITIES

NON- INVASIVE METHODS

- Non-F remineralising agent
- Remineralising F
- Fissure Sealant
- Resin infiltration
- Sealing with CR

TREATMENT MODALITIES

INVASIVE METHODS

- Dental caries removal technique
- Pulp therapy

TREATMENT MODALITIES

RESTORATIVE MATERIALS

- Direct restorations
- Indirect restorations

NON- INVASIVE METHODS

- **Non-F remineralising agent**
- **Remineralising F**
- **Fissure Sealant**
- **Resin infiltration**
- **Sealing with CR**

Non-cavitated
lesions



Cavitated lesions when
treatment cannot be done
immediately.

Recommendation 16

- For non-invasive treatment of caries in early childhood caries:
 - silver diamine fluoride may be used to control caries progression in the primary dentition.
 - fluoride varnish should be applied according to caries risk assessment.
 - fissure sealant should be used in primary molars with non-cavitated occlusal lesions.
 - resin infiltration may be used on non-cavitated carious lesions.
 - sealing with composite resin may be considered for cavitated lesions limited to 1.5 mm in diameter and outer half of the dentine in primary molars.

INVASIVE METHOD S

- **Dental caries removal technique**
- **Pulp therapy**

Stepwise Excavation (SWE)	Selective Caries Removal (SCR)	Non-selective caries removal (NSCR)
• First stage: complete removal of caries at peripheral walls while leaving softened dentine close to the pulp, followed by a temp restoration. • Second stage: the cavity is reopened and more of the softened dentine is removed, followed by a final restoration.	• Complete removal of decayed tissue at peripheral walls and leaving soft dentine close to the pulp, followed by a definitive restoration in one visit.	• Remove all carious dentine or complete caries removal.

Recommendation 17

- Selective removal of caries may be the preferred approach for managing deep caries lesions in vital primary teeth for early childhood caries.

