The child with CRS

Dr. Sietze Reitsma
Amsterdam UMC, location AMC
The child with CRS?

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EPOS 2020: Care pathways for Paediatric CRS

**Self-Care Pharmacy**
- Two CRS symptoms
  - One of which should be nasal obstruction and/or discoloured discharge
  - + facial pain/pressure
  - + cough
  - > 12 weeks
- Self-Care
  - Self-education / e-Health
  - Nasal hygiene
  - Saline spray / rinses
  - INCS if OTC
  - NSAIDs / Paracetamol
- Examination of ears, nose and throat
- Suspicion of adenoid hypertrophy?
- INCS
- 6-12 weeks: improvement?

**Primary Care**
- Refer to Primary Care
- Refer to Secondary/Tertiary Care

**Secondary Care**
- Adenoid hypertrophy
- History & full ENT exam; nasal endoscopy
- Adenooidectomy
- 6-12 weeks: improvement?
- Adenooidectomy followed by AMT
- Low LMS
- CT Scan
- Adenooidectomy +/- irrigation followed by AMT
- High LMS
- 6-12 weeks: improvement?

**Tertiary Care**
- Appropriate medical therapy (AMT)
  - Nasal steroid (drops / spray / rinses)
  - Saline rinses
- 6-12 weeks: improvement?

**Differential Diagnosis**
- Adenoid hypertrophy (non-)Allergic rhinitis
- Common colds
- Primary CRS
- Secondary CRS
- CF
- PCD
- PID
...
EPOS 2020: Care pathways for Paediatric CRS

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  - INCS if OTC
  - NSAIDs / Paracetamol

Primary Care
- Examination of ears, nose and throat
- Suspicion of adenoid hypertrophy?
  - +
    - INCS
  - -
    - 6-12 weeks: improvement?
      - -
        - Refer to Primary Care
      - +
        - Refer to Secondary / Tertiary Care

Immediate Referral

Presence of Alarm Symptoms
- Periorbital oedema/erythema
- Displaced globe
- Double vision
- Ophthalmoplegia
- Reduced visual acuity
- Severe headache
- Frontal swelling
- Signs of sepsis
- Signs of meningitis
- Neurological signs
- Unilateral symptoms
- Bleeding
- Crusting
- Cacosmia

IMMEDIATE REFERRAL
EPOS 2020: Care pathways for Paediatric CRS

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Self-Care Pharmacy

- Examination of ears, nose and throat

Suspicion of adenoid hypertrophy?

INCS

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Primary Care

- Refer to Primary Care

Self-Care

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Examining of ears, nose and throat

Suspicion of adenoid hypertrophy?

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Primary Care

Refer to Primary Care

Secondary / Tertiary Care

PRESENCE OF ALARM SYMPTOMS
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IMMEDIATE REFERRAL

Refer to Secondary / Tertiary Care

= +
History & full ENT exam; nasal endoscopy

- Adenoid hypertrophy
  - Adenoidectomy
    - 6-12 weeks: improvement?
      - +: 6-12 weeks: improvement?
      - -: Adenoidectomy followed by AMT
        - 6-12 weeks: improvement?
          - +: 6-12 weeks: improvement?
          - -: Adenoidectomy +/- irrigation followed by AMT
            - 6-12 weeks: improvement?
              - +: 6-12 weeks: improvement?
              - -: Appropriate medical therapy (AMT)
                - • resolution of symptoms with time
                - • check comorbidities / secondary CRS
                - In older children: consider FESS

- Not CRS
  - Consider / test for DD and treat (e.g. AR)

- Primary CRS
  - Consider / test for secondary CRS and comorbidities (e.g. CF / PCD / PID)
  - Appropriate medical therapy (AMT)
    - • Nasal steroid (drops / spray / rinses)
    - • Saline rinses
  - CT Scan
    - 6-12 weeks: improvement?
      - +: 6-12 weeks: improvement?
      - -: High LMS
        - 6-12 weeks: improvement?
          - +: 6-12 weeks: improvement?
          - -: Low LMS

- Refer to Primary Care
- Refer to Secondary / Tertiary Care
Decision Tree:

1. History & full ENT exam; nasal endoscopy
   - Not CRS
     - Consider/test for DD and treat (e.g., AR)

Secondary Care:
- Adenoid hypertrophy
  - Adenoidectomy
    - 6-12 weeks: improvement? (+) → Refer to Primary Care
    - 6-12 weeks: improvement? (-) → Adenoidectomy followed by AMT
      - 6-12 weeks: improvement? (+) → Refer to Primary Care
      - 6-12 weeks: improvement? (-) → Consider/test for DD and treat (e.g., AR)

Secondary Care:
- Primary CRS
  - Consider/test for secondary CRS and comorbidities (e.g., CF/PCD/PID)

Tertiary Care:
- Low LMS
  - CT Scan
    - 6-12 weeks: improvement? (+) → Appropriate medical therapy (AMT)
      - Nasal steroid (drops/spray/rinse)
      - Saline rinses
    - 6-12 weeks: improvement? (-) → Refer to Secondary/Tertiary Care

Tertiary Care:
- High LMS
  - Adenoidectomy followed by AMT
    - 6-12 weeks: improvement? (+) → Refer to Primary Care
    - 6-12 weeks: improvement? (-) → Appropriate medical therapy (AMT)
      - resolution of symptoms with time
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Refer to Primary Care

History & full ENT exam; nasal endoscopy

Adenoid hypertrophy
- Adenoidectomy
  - 6-12 weeks: improvement?

Adenoidectomy
- Adenoidectomy followed by AMT
  - 6-12 weeks: improvement?

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CT Scan

High LMS

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Secondary CRS

Anatomic distribution
- Localized (unilateral)
- Diffuse (bilateral)

Endotype dominance
- Local pathology
  - Mechanical
  - Inflammatory
  - Immunity
- PCD
- CF
- GPA
- EGPA
- Selective immunodeficiency

Examples of phenotypes
- Odontogenic Fungal Ball Tumour
- In older children: consider FESS
Secondary CRS

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Primary Care

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Primary CRS

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Key points

- CRS in children is rare
- Comorbidities are (more) likely
- If indeed CRS
  - Remember secondary
  - Be cautious indicating surgery