CURRENT MANAGEMENT AND REFERRAL PATTERNS OF PEDIATRICIANS FOR ACUTE OTITIS MEDIA
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Abstract

Educational Objectives: At the conclusion of this presentation, the participants should be able to understand trends in current treatment and referral patterns of acute otitis media and how they compare to national published guidelines.

Objective: The American Academy of Pediatrics (AAP) has published an evidence-based clinical practice guideline for the management of acute otitis media (AOM), most recently revised in 2013. This study aims to assess current practice patterns and how they compare to the published guideline.

Study Design: Survey of practicing Pediatricians.

Methods: An 11 question survey addressing topics included in the 2013 AAP AOM guidelines were mailed to 193 practicing Pediatricians. Statistical analysis was performed using Chi-square and ANOVA testing.

Results: 76 (39.4%) completed surveys were returned. 75% of respondents were in group practice (non-academic) and 20% were in academic practice. 49% of respondents were members of the AAP. 49% of respondents used pneumatic otoscopy and/or tympanometry at least once a day to aid in the diagnosis of AOM, while 28% never did. 15% of respondents would choose close observation over antibiotics in a child under the age of 2 years with unilateral non-severe AOM while 50% would choose close observation in a child over age 2. 70% would make an appropriate referral to Otolaryngology for recurrent AOM. No significant differences were noted in responses based on practice type, years in practice, or Otolaryngology experience during residency training.

Conclusion: Current Pediatrician practice and referral patterns for AOM are not consistent with 2013 guidelines from the AAP. As consulting surgeons, Otolaryngologists should have knowledge of management protocols in related specialties that can have an impact on their practice.

Introduction

In 2013, the American Academy of Pediatrics and the American Academy of Family Physicians worked together to update published guidelines on the diagnosis and management of acute otitis media (AOM).

In previous guidelines, it was found that while physicians acknowledged the guideline and the role of observation, there was no significant change in the number of children being observed or the number of antibiotic prescriptions1,2.

The 2013 guideline3 has made some changes to the diagnostic criteria for acute otitis media:

- More emphasis on physical exam findings
- Distinguishing AOM from otitis media with effusion (OME)
- Routine use of pneumatic otoscopy
- Incorporation of pneumatic otoscopy education in all stages of training

Methods

A survey study was conducted of Pediatricians currently practicing in Pennsylvania and surrounding areas.

193 Pediatricians chosen randomly to receive surveys.

Questions were created to emphasize different recommendations in the 2013 AOM Guideline.

Surveys were mailed and a link to the online RedCap survey was made available to participants

Statistical analysis was performed using Chi-square and ANOVA testing

Summary

76 of the 193 surveys (39.4%) were returned.

Table 1: Descriptive analysis of Pediatricians who responded to the AOM survey.

<table>
<thead>
<tr>
<th>Practice Type</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private</td>
<td>6 (7.9)</td>
</tr>
<tr>
<td>Group (non-academic)</td>
<td>57 (75.0)</td>
</tr>
<tr>
<td>Academic</td>
<td>13 (17.1)</td>
</tr>
</tbody>
</table>

Table 2: Use of pneumatic otoscopy and/or tympanometry amongst Pediatricians based on practice type.

<table>
<thead>
<tr>
<th>Multiple times each day</th>
<th>Private N=6 (%)</th>
<th>Group N=57 (%)</th>
<th>Academic N=13 (%)</th>
<th>Totals N=76 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least once per day</td>
<td>1 (17)</td>
<td>10 (17)</td>
<td>2 (15)</td>
<td>13 (17)</td>
</tr>
<tr>
<td>Several times a week</td>
<td>1 (17)</td>
<td>5 (9)</td>
<td>2 (16)</td>
<td>8 (10.5)</td>
</tr>
<tr>
<td>Several time a month</td>
<td>5 (9)</td>
<td>5 (9)</td>
<td>1 (8)</td>
<td>11 (14.5)</td>
</tr>
<tr>
<td>Once a month</td>
<td>9 (14)</td>
<td>9 (14)</td>
<td>2 (16)</td>
<td>20 (26)</td>
</tr>
<tr>
<td>Never</td>
<td>1 (17)</td>
<td>10 (17)</td>
<td>10 (77)</td>
<td>21 (28)</td>
</tr>
</tbody>
</table>

15% of respondents would choose close observation over antibiotics in a child under the age of 2 years with unilateral non-severe AOM while 50% would choose close observation in a child over age 2.

70% would make an appropriate referral to Otolaryngology for recurrent AOM after 4 documented episodes of AOM within the span of 1 year.

No significant differences were noted in responses based on practice type, years in practice, or Otolaryngology experience during residency training.

Discussion

- Nearly all respondents were AAP members and in general felt guidelines published by the AAP were useful.
- There is gross under-utilization across all Pediatricians of pneumatic otoscopy to aid diagnosis of AOM
- A minority of Pediatricians feel comfortable using observation in non-severe unilateral AOM in children under age 2 despite the option per the guidelines
- For unknown reasons, many Pediatricians are not making appropriate referrals to Otolaryngology for recurrent AOM
- The study was limited in that it was not assessed how many Pediatricians were aware of the published guidelines and whether inconsistencies in practice were due to experience or lack of knowledge.

Conclusions

Current Pediatrician practice and referral patterns related to the diagnosis of AOM are not consistent with published guidelines.

More research is needed to assess why practice patterns are not consistent with guidelines.

Education is needed amongst Pediatricians on appropriate indications for referral to Otolaryngologists with regards to acute otitis media.