Antibiotic use for conjunctivitis: decision to treat and opportunities to improve management

Thresia Sebastian MD, MPH,1,3 Holly M. Frost MD1,2,3

1 Department of Pediatrics, Denver Health and Hospital Authority; 2 Office of Research, Denver Health and Hospital Authority; 3 School of Medicine, University of Colorado Anschutz Medical Campus

Background
Acute infectious conjunctivitis (AIC) is a common childhood infection, often due to viral etiology. Antibiotic overuse is an ongoing public health crisis. AIC poses a significant burden for families and increased health care costs and utilization.

Conclusions
• Management of AIC is still following antiquated strategies
• High variability noted in decision to prescribe antibiotics
• Poor awareness of national treatment guidelines or return to school/daycare recommendations
• Higher antibiotic prescribing during the COVID-19 epidemic due to increase in nurse line visits

Objectives
• To describe the decision-making process providers use when managing AIC
• To identify factors to reduce unnecessary antibiotic prescribing
• To evaluate how the COVID-19 pandemic has influenced antibiotic prescribing

Methods
Using a modified grounded theory approach, semi-structured interviews were conducted with 20 pediatric providers in primary care, urgent care, and emergency departments in Denver, Colorado. Major themes emerged using deductive and inductive content analysis methods.

Implications
Strategic solutions for antibiotic overuse in the treatment of AIC:
• An updated and unified national guideline for the treatment of AIC
• A partnership between local health care systems and schools/daycares to establish consistent and accessible exclusion policies

Factors that influence clinical decision making for treatment of conjunctivitis

Clinical presentation
Family expectations
School/daycare policies
Antibiotic stewardship concerns
Diagnostic uncertainty

Factors that would change antibiotic prescribing behavior

Change school/daycare policies
Family education
Updated clinical pathways/guidelines
Diagnostic testing

Results
I tend to think of bacterial conjunctivitis as if you wipe away the discharge when I walk in the room and begin my history and physical, then usually by the end of the visit, the pus is back. That’s pretty much a slam dunk for me.’ – Pediatrician

I very distinctly remember having the father of a patient get very angry with me(…) he said, “You know, all of you guys in medicine, once you learn the word virus, you just stopped practicing medicine” – Family medicine APP

‘I don’t tell schools how to educate and I don’t think that schools should tell us how to medicate.’ – Pediatrics APP

‘(…) if you reviewed our nursing line, there would probably be a huge number of them that had they been seen by a clinician, they would not be treated.(…) I would love to find a way to decrease that, but it sort of is also balanced by it’s really nice for us and also for the families to minimize some of those visits.’ – Pediatrician

‘I’m going to say that any school-aged child is going to walk out of my office with antibiotics.’ – Family medicine APP

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‘If somebody could pour over the data and come out with guidelines and say as a whole, we recommend this, I think it would aid our decision making. But it would also help convince parents and schools that this is the right thing to do and that could help in convincing them of appropriate decisions.’ – Pediatrician

Limitations
• Sampling bias
• Generalizability

Contact Information: For more information or for additional copies of this abstract, contact Thresia Sebastian MD, MPH at thresia.sebastian@dhha.org.

An easily accessible, updated, and unified national guideline for the treatment of infectious conjunctivitis in children is needed to reduce unnecessary prescribing and reduce the burden for families and the health care system.