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Cochrane Review: Antibiotics for Acute Bronchitis

Acute bronchitis is a very common condition seen in outpatient settings, particularly in urgent care settings; it is known as a lower respiratory tract infection and causes an inflammatory response of the bronchioles. The condition is caused by bacterial pathogens, although viral is the most common cause, and the symptoms last anywhere from 2 weeks to 8 weeks, with a cough being the hallmark. Management is usually provider dependent, and the focus revolves around treating the underlying symptoms. However, there has always been concern over whether antibiotics are appropriate, and they are frequently prescribed depsite evidence based guidelines. This further contributes to the issue of overtreating patients, leading to antimicrobial resistance.

To analyze the issue of seeing if antibiotics provided benefits to patients with bronchitis, there was a Cochrane systematic review that was conducted in 2017. There were 17 randomized controlled trials (RCTs) that involved 5,000 participants with acute bronchitis, where groups were given either antibiotic therapy or a placebo, and all of these participants received the same symptomatic treatment. The participants were followed over the course of their illness, which was around 10 days, and then the follow-up period depended on the type of study, but was typically around one to two weeks. It was discovered that patients who were given antibiotics had minimal improvement in the duration of their symptoms including cough and in the duration. While this is definitely a positive outcome, it is not enough to consider placing a patient on a course of antibiotics because the effects are not drastic.

Furthermore, the antibiotics that patients were prescribed included macrolides, amoxicillin, doxycycline, etc. Knowing what type of antibiotics were given is crucial to understanding the amount of adverse reactions that can happen when taking these. Patients experienced a wide range of side effects, such as gastrointestinal manifestations, such as nausea, vomiting, diarrhea, and also headaches and hypersensitivity reactions, like a rash. These side effects do not outweigh the fact that acute bronchitis is self-limiting and only adds to and worsens symptoms in a patient who is already sick.

Overall, it was concluded that prescribing antibiotics in acute bronchitis is not supported, especially in healthy patients without any medical comorbidities. The results most align with current guideline recommendations that argue against the use of antibiotics. Instead, there should be a focus on encouraging supportive treatment and reassuring patients that acute bronchitis is a self-limiting condition, even though there might be resistance and a push for being prescribed an antibiotic.

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