New clinical guidelines for exacerbations in cystic fibrosis

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The American Thoracic Society has released new clinical guidelines for the treatment of exacerbations in cystic fibrosis based on a review of the literature on current clinical practices.

"This is the first such comprehensive and evidence-based systematic review of best practices for pulmonary exacerbation of cystic fibrosis," said Susanna McColley, M.D., head of the division of pulmonary medicine and director of the Cystic Fibrosis Center at Children's Memorial Hospital and associate professor at Northwestern University's Feinberg School of Medicine. "Until these, guidelines were arrived at by a less rigorous process based on the consensus of a committee of experts."

When cystic fibrosis patients suffer an acute exacerbation, they undergo an acute worsening of symptoms, which typically require medical intervention. While a prospective definition of an exacerbation has not yet been developed, clinical features are generally well-defined and represent a sharp deterioration in the general condition of the patient, often involving systemic symptoms such as weight loss and lack of appetite, as well as worsening of pulmonary symptoms such as cough, sputum production and shortness of breath. Exacerbations are the most common reason for hospitalization of cystic fibrosis patients.

The guidelines, which were presented at the North American Cystic Fibrosis Conference in October, highlighted a number of common practices in cystic fibrosis exacerbations.

The committee gave guidance on two areas of significant interest to clinicians: synergy testing and the dosing of aminoglycoside antibiotics. In the case of synergy testing—a costly and time-consuming practice of determining what synergistic effects different antibiotics may have when used together against multi-drug resistant infections—was found to have little benefit to the patient and the committee recommended against the routine use of it. In the case of aminoglycoside antibiotics, they found that three-times-daily dosing was no more effective than once-daily dosing and recommended once-daily dosing in most cases.

The committee also affirmatively recommended continuation of two current practices—continuing chronic therapies during exacerbation treatment and airway clearance therapies—both of which were found to have moderate benefits to the patient.

Perhaps most strikingly, the committee found that in six of ten investigated practices, there was simply not enough data to recommend for or against them. "This highlights that there are a lot of unanswered questions," said Dr. McColley, citing the need for research that would clarify whether there are different outcomes associated with the practices, which included inpatient versus outpatient care; simultaneous use of intravenous and inhaled antibiotics; number of antibiotics used to treat Pseudomonas aeruginosa; continuous infusion of betalactam antibiotics; and duration of antibiotic treatment.

"We have incomplete information, but the guidelines provide important guidance to physicians, patients, third party payers on the treatment of this serious and common complication of CF respiratory disease," she said. "By reducing variability in practice, implementation of these guidelines may help to improve outcomes of care."

More information: www.thoracic.org/sections/publ … 09-cf-guidelines.pdf

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