G81 Pediatric Asthma Mortality in the Cook County Medical Examiner's Office, 1 to 14 Years: 1998 - 2002

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After attending this presentation, attendees will understand trends and patterns of pediatric asthma death and how to diagnose pediatric asthma at an early age.

The management of pediatric asthma should take optimal treatment with current therapies and continued public education for available care. Asthma mortality can be reversed.

The purpose of this presentation is to provide pediatric asthma death data between 1 and 14 years of age in the Cook County Medical Examiner's cases. This report has the following goals: 1. To describe trends and patterns of pediatric asthma death. 2. To identify the prevalence of risk factors. 3. To understand how to diagnose of the condition in children younger than 5 years of age. We examined case records of the Cook County Medical Examiner's Office (CCMEO) over the five year period from January 1, 1998 through December 31, 2002. The number of deaths investigated by CCMEO between 1 to 14 years of age totaled 42 cases in the five year period. Twenty-two cases involved males and twenty involved females. Blacks were predominate in 79% (33/42) of the cases. The highest incident occurred at the age of 10. This report highlights pediatric asthma mortality in an early age. Three cases involved under 2 years of age. Asthma is a chronic inflammatory disease of the airways clinically characterized by recurrent episodes of wheezing, breathlessness, and chest tightness. It is associated with variable airflow limitation that is at least partly reversible, either spontaneously or with treatment. In recent years, the prevalence and severity of asthma is noted to be increasing. In the United States, current estimates indicate that the number of children with asthma has increased by about 100% in the past 20 years. Between 1980 and 1995, the number of U.S. children with asthma rose from 2.3 million to 5.5 million, and this rise now seems continuing. The number of deaths from asthma increased gradually during 1980 to 1995, from 2891 to 5637 in all ages and from 94 to 185 in ages 0 to 14. Although without certainty, data for 1996-1998 indicate that mortality rates are starting to plateau or decrease. Asthma is a worldwide problem. The prevalence of asthma in adults is between 5% and 10% in the industrialized countries, and about 10% of these patients have a severe disease that is not optimally treated with currently available therapies. One-third of asthmatics are pediatric asthma. Asthma runs in families and has heritability. The hallmark in its pathogenesis is the development of chronic airway inflammation leading to bronchial hyper-responsiveness and airway remodeling. Exposure to inhalant allergen results in inflammatory mediators. The principal effector cells are eosinophils, mast cells and others. Diagnosis of pediatric asthma relies on a combination of meticulous history and the objective evidence of airway liability.

Pediatric Asthma, Mortality, Diagnosis

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