Early lung infections extend cystic fibrosis woes

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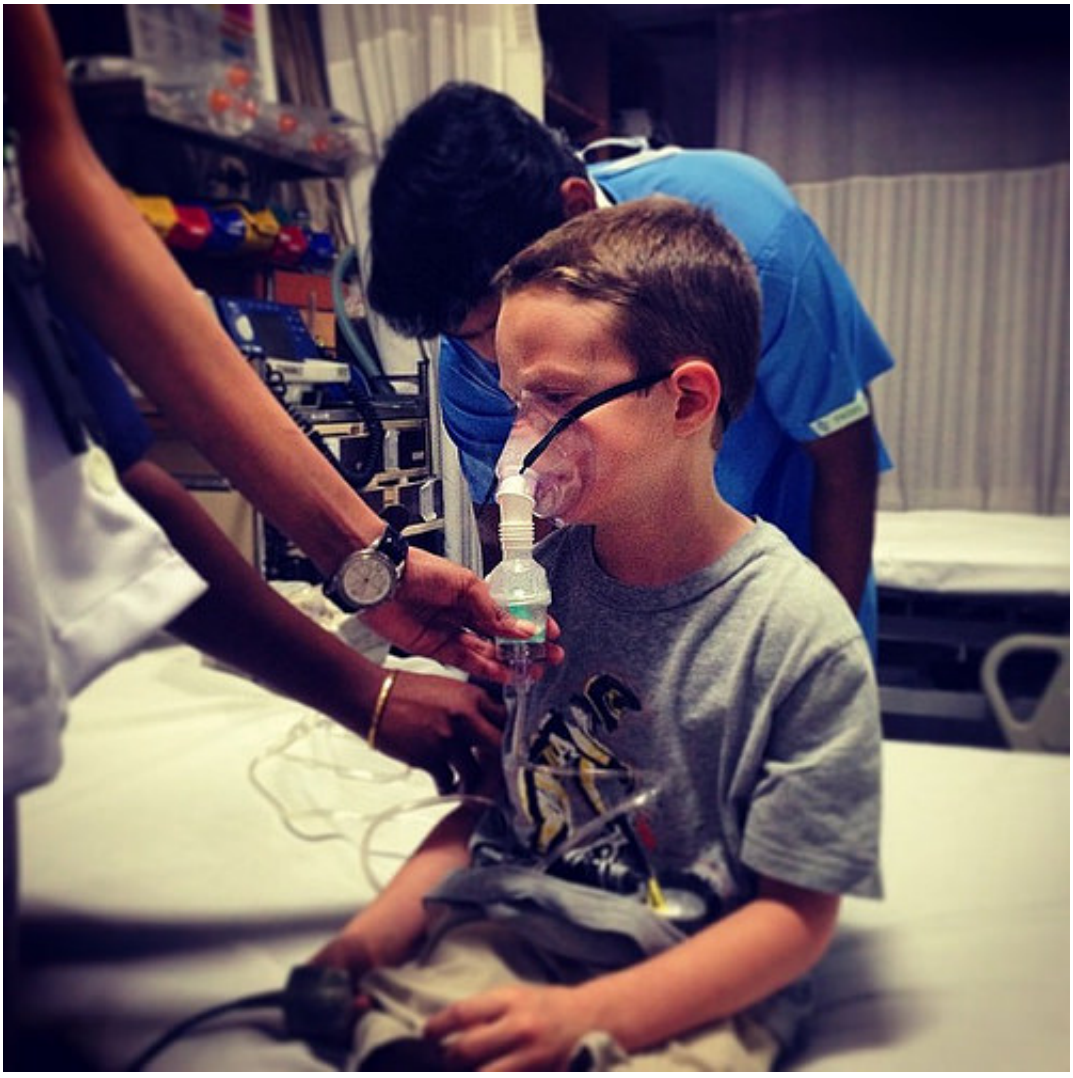

"What this study suggests is that we should be doing routine [checks for] lower respiratory track infections in all 0-2-year-old infants because it may be able to tell you how they will develop in life," Dr Ramsey says. Credit: thered1

A study involving infants and school age children with Cystic Fibrosis (CF) has found early lung infections can lead to long-term issues such as poorer lung function at school age.

The research, led by Telethon Kids Institute researcher Kathryn Ramsey is the first of its kind to collect longitudinal data from a large group of children with CF diagnosed by newborn screening.

"It's a really important study because it looks at one of the early drivers of lung disease," Dr Ramsey says.

"We have longitudinal data where we can track [the children] for 10 years and we can look at what happens early in life and what effect that has at school age where we have a bit more information about what that means for their long-term health.

"We found that having an infection in the lung with a pathogen that we know causes inflammation in the lung leads to poorer lung function at school age."

The authors have recommended changing the way young children with CF are monitored throughout their development with a large focus on identifying pathogens.

"There's no standard protocol in how different centres monitor pathogens," Dr Ramsey says.

"Some centres will do a bronchoscopy and collect some fluid from the lower airway to look for pathogens only when the child is sick and some will look for pathogens only in the upper airways.

"What this study suggests is that we should be doing routine [checks for] lower respiratory track infections in all 0-2-year-old infants because it

may be able to tell you how they will develop in life."

Children are limited to annual checks as they require being put under general anaesthetic during monitoring.

Antibiotics can prevent pathogen risk
Dr Ramsey says children with CF might be able to lower the risk of lung infections if they maintain appropriate use of prescribed antibiotics.

"One thing you can do is you can put infants on prophylactic antibiotics as soon as they're diagnosed," Dr Ramsey says.

"We found that children that took their antibiotics had better lung function then those that didn't.

"The other thing is you can do is provide targeted antibiotics for the bug that you actually find."

Other authors involved in the study include Dr Sarath Ranganathan, Ms Judy Park, Ms Billy Skoric, Ms Anne-Marie Adams, Dr Shannon Simpson, Professor Roy Robins-Browne, Asst/Prof Peter Franklin, W/Prof Nick de Klerk, Professor Peter Sly, Professor Steve Stick and Professor Graham Hall.

More information: "Early respiratory infection is associated with reduced spirometry in children with cystic fibrosis." *Am J Respir Crit Care Med*. 2014 Nov 15;190(10):1111-6. DOI: 10.1164/rccm.201407-1277OC

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