

July 12, 2009

New Zealand: Swine flu teenager 'needs a miracle'

Via *Hawke's Bay Today*: [Swine flu teenager 'needs a miracle'](#). Excerpt:

A Havelock North teenager with swine flu is fighting for life in Starship Children's Hospital but will need a miracle to survive, her parents say.

Claudia Teague, a Year 9 student from Woodford House, is in a critical condition after being put in a drug-induced coma in Hawke's Bay Hospital on Wednesday.

Claudia first felt unwell last Saturday, the first day of the school holidays, and on Monday had a sore chest so her mother, Caroline Teague, made an appointment with the family's GP for the next day.

By the time of that appointment Claudia's condition had deteriorated and the doctor diagnosed her with influenza and prescribed Tamiflu, but that night she had difficulty breathing so on Wednesday saw her GP again.

She was given oxygen and taken by ambulance to Hawke's Bay Hospital where she was admitted to the intensive care unit and that night put in the drug-induced coma.

Early Thursday morning the family was told Claudia needed to be flown by air ambulance to Starship so she could be put on ECMO life support - a machine that keeps a patient alive when their own heart and lungs are too stressed to do the job. Claudia's parents, Caroline and Roger, and sisters, Harriet and Georgia, are staying at Ronald McDonald house.

They say in the blog which they have set up to track Claudia's progress that had she not been put on the ECMO machine that day she would not have survived.

Swine flu has been confirmed and it's thought that while her body was trying to fight the new virus a secondary bacterial infection attacked her heart and lungs.

Claudia is also on dialysis because her kidneys are failing.

Our thoughts are with this young woman and her family.

Six formerly healthy young Sydney people fight for their lives

On July 14th, 2009 Mick says:

This morning's Herald reports that six young, previously healthy people in Sydney are fighting for their lives on last-resort cardiac bypass machines because their lungs have been too damaged or diseased by Swine Flu to allow mechanical ventilation. The surge in cardiac bypass patients is putting a strain on intensive care units and staff. No doubt decisions will soon have to be made about who is going to be saved and who will have to be left to die. These necessary decisions will pose ethical problems for medical staff.

All six swine flu victims are at Royal Prince Alfred Hospital where staff have had to borrow three machines to treat ten swine flu sufferers in the last two weeks. The hospital usually only uses the cardiac bypass machines five times a year.

Head of intensive care services Dr Robert Herkes stated "This is not an ordinary flu. It is hitting young, otherwise healthy people...they start with a sore throat, develop shortness of breath and within 12 to 24 hours have rapidly developed respiratory failure and are being ventilated."

Dr Herkes said extracorporeal membrane oxygenation was considered a last resort treatment.

Dr Brad Fankum said "The number of people being treated with ECMO is of great concern because these cases of respiratory distress are threatening the capacity of the system."

Sustained person-to-person transmission might result in the emergence of more pathogenic variants as observed in the 1918 pandemic.

Delving into swine flu death of 'very healthy' teen

Complications from MRSA bacteria contribute to first local H1N1 fatality

By Henry L. Davis

NEWS MEDICAL REPORTER

Matthew Davis was a healthy Buffalo teenager who participated in sports before complaining of headaches June 13.

Within a few days, the 15-year-old student at Harvey Austin School 97 on Sycamore Street arrived seriously ill at Women & Children's Hospital and then died Saturday, making him the first known fatality in Erie County caused by swine flu, officially known as novel H1N1 influenza.

It was a surprising turn of events for the family.

"He was a very healthy boy," said his mother, Lucretia Belton.

What happened? By the time Matthew entered the hospital, he was seriously ill with the flu, as well as co-infected with a type of bacteria known as methicillin-resistant staphylococcus aureus, or MRSA, according to health officials.

MRSA has been a problem in hospitals and nursing homes for decades, but has also spread to otherwise healthy people in the community, living normally on the skin and in the nose and throat. Research suggests that the overuse of antibiotics has contributed to the problem.

This bacteria can cause infections of the skin, nose, throat and ear. But in a small number of cases, especially in patients with weakened immune systems, it can lead to life-threatening pneumonia and blood infections.

An estimated 92 children die annually in the United States from regular influenza, according to the federal Centers for Disease Control and Prevention, and some of those deaths have been associated with coinfection with MRSA. As such, officials at the federal agency said last month they are closely following the development of the new H1N1 flu strain to see whether there is a similar co-infection with community-acquired MRSA in some cases.

In total, eight people, including two adults, have been hospitalized in Erie County since the first case of H1N1 was confirmed in the county May 11. Three children remain hospitalized in Women & Children's with the new strain of the flu, including a 9-year-old student at Charles Drew Science Magnet School 59 in critical condition. Matthew and the 9-year-old also were infected with MRSA when they were admitted to the hospital.

"Both children were unusually ill with severe lung disease, and both required ECMO, and that was unusual," said Dr. Howard S. Faden, chairman of infection control and director of virology at Women & Children's.

ECMO, or extracorporeal membrane oxygenation, is similar to a heart-lung bypass machine utilized in open-heart surgery and is used when patients fail to respond to a respirator or other typical treatments for breathing problems. Under ECMO, the patient's blood receives oxygen from an artificial lung.

Most of the H1N1 cases seen in the Buffalo Niagara region have been mild, as is the case nationwide.

Nationally, the virus continues to sicken mostly younger people, usually causing such typical flu symptoms as fever, cough and fatigue. "In terms of symptoms, swine flu appears to be like every other influenza. What's different is that the seasonal flu usually stops by now, and this strain is continuing," Faden said.

Belton said that Monday, she took her son to the hospital, where he received an antibiotic, and that Wednesday, they returned when his condition continued to decline.

"He just got worse and was feeling very fatigued," she said.

So far, public health officials have reported about 1,600 hospitalizations and 87 deaths nationwide from H1N1. The regular flu causes 36,000 deaths a year in the United States.

About 70 percent of the hospitalized H1N1 patients nationwide have suffered from an existing underlying medical condition, such as asthma or diabetes, making them more at risk for complications, according to the federal agency.

That doesn't appear to be the case with Matthew. However, his family has agreed to an autopsy to rule out any other explanations, Belton said.

On the influence of MRSA, Faden said it might be that the flu, whether it is swine flu or regular flu, damages the lower airway or impairs the body's disease-fighting immune system. As a result, MRSA living in the nose or upper airway gains entrance into the bloodstream to cause disease.

"With the seasonal flu, there are two groups historically susceptible to more serious illness — the very young and the very old," he said. "We don't understand really what is happening with swine flu yet."

This is somewhat understandable because novel H1N1 is an influenza virus of swine origin that was first detected in humans in April. The strain is continuing to spread in many parts of the nation, especially the Northeast, and researchers have yet to completely decipher how it develops and what makes one person more at risk than another. Nor is it yet known what percentage of the population is likely to get sick from H1N1 and what percentage is likely to die from it.

"We don't know enough about the virus. People want answers right away, but we need more time to learn more about it," Faden said.

All of which is why experts remain cautious about H1N1. No one yet knows whether it is more dangerous than regular flu or whether it will mutate later into a more lethal virus in a world population with little or no immunity to it.

As of Friday, there were 21,449 confirmed and probable cases of H1N1 flu in the nation. Erie County has reported 169. Several cases, all mild, have been reported in Niagara County, including three each reported for children in Barker and Niagara Falls last week.

However, those cases only reflect the illness' spread. The actual number of people with the virus is significantly higher, probably in the hundreds of thousands, officials at the federal agency said in a telephone briefing last week.

Buffalo Public School officials said Monday they are aware of 32 confirmed cases of H1N1 in the district — 29 students and three adults — in 11 of 63 schools.

Students and staff should stay home if they are sick, and any student in school with flu-like symptoms will be sent home, said Assunta R. Ventresca, director of health services.

Amherst Central Schools announced Monday that three more students at Windermere Boulevard Elementary had contracted the flu. The school, which has only a half-day remaining in the academic year, reported that the children are home with mild illness.

<http://www.buffalonews.com/home/story/711734.html>



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Send response to
journal:

Re: [Role of ECMO in
The Management of
Patients With Swine
Flu?](#)

The current swine flu pandemic is a cause for international concern. The virus is a new strain of the influenza A subtype H1N1 virus which presents with a wide spectrum of clinical features ranging from mild flu like symptoms to severe respiratory failure requiring mechanical ventilatory support. The current WHO alert status of phase 6 seems to be more of a reflection of the spread of disease rather than severity of infection. However the virus can cause severe respiratory failure resulting in over 140 deaths world wide.

As correctly reported in the lay press the majority of patients with swine flu, do not require intensive care management. Nevertheless a small proportion of them do require mechanical ventilation. Recently we have had our first death in the UK following failure of conventional management.

The question arises as to what further management modalities can be offered to these patients if they do not achieve adequate gas exchange on maximum conventional ventilation

It is likely that Extracorporeal membrane oxygenation (ECMO) could be used with good effect for patients with Swine Flu who are failing conventional ventilation. It appears from early reports of a handful of cases from the US (Personal Communication via ECLS Net) that H1N1 behaves like other viral pneumonias when patients are supported with ECMO. In our centre we have treated 57 adults with a primary diagnosis of viral pneumonia with ECMO of which 47 (82%) survived to decannulation from ECMO and 40 were discharge alive from our centre. 13 patients had influenza of which 10 survived ECMO and 7 survived to discharge. We have also treated 28 children with viral pneumonia of whom 22 (79%) survived to discharge .

In view of our experience with viral pneumonias, we feel that ECMO should be considered as an option for support of H1N1 pneumonitis patients who are failing conventional ventilation. It is essential that such patients are discussed with the ECMO Centre before they have sustained irreversible ventilator induced lung injury (around 7 days of high pressure, high FIO2 ventilation). Please call 0116 2871471 and ask for the ECMO coordinator if you would like to discuss patient referral.

Competing interests: None declared