A 12 month old child arrives at the emergency department near death. He has all the signs of classic septic shock. You resuscitate the child according to SCCM and AAP guidelines with a team effort that makes you proud to be part of the effort. The unit clerk sets up transport. You arrange to have a PICU bed waiting.

Despite your best efforts, the child dies in route to the children’s hospital.

Six months later, to your surprise, you are handed a subpoena. “On what grounds?” you wonder.

Could this happen to you?

Dr. Richard A. Orr, a professor of critical care medicine and pediatrics, division of pediatric critical care medicine at Children’s Hospital of Pittsburg, et al recently published a prospective cohort study on older children transported to a tertiary care center. In this study, over 1000 transports were analyzed for unplanned events and mortality. The vast majority of transports to the Children’s Hospital of Pittsburgh were conducted with a specialized transport team. A minority of the flights to the Children’s Hospital of Pittsburgh arrived via a non-specialized team similar in composition to the majority of critical care teams in Kentucky.

The striking but unsurprising findings were the severity-adjusted risk of mortality was significantly higher using non-specialized teams (9 percent vs 23 percent, p<0.001). Unplanned events including extubation were significantly higher. Some events were inevitable such as patient deterioration secondary to equipment failure.

The Emergency Medical Treatment and Labor Act (EMTALA) states that interhospital transport be conducted with qualified personnel and equipment. When transferring a child, please protect yourself by asking about their specific pediatric qualifications as well as their ability to transport the patient in a thermo-neutral environment.

I have the honor of working with the Kentucky Children’s Hospital transport team, the “Kid’s Crew”. Approximately 700 children each year admitted to Kentucky Children’s Hospital via our transport team. The average experience of one our transport nurses is 10 years. Prior to joining the Kid’s Crew, nurses have worked an additional three to five years in the neonatal or pediatric ICU.

We are striving to bring the best care possible to our children. Please let us know how we can meet your needs!
Respiratory Synctial Virus (RSV) Quick Facts
- Most important cause of bronchiolitis
- Very young infants; irritability, decreased activity, and apnea
- Runny nose, Wheezing, Sneezing
- Decreased appetite
- Sometimes fever
- Wheezing

Influenza Quick Facts
- Fever (usually high)
- Headache
- Extreme tiredness
- Dry cough
- Runny or stuffy nose
- Muscle Aches
- Nausea and Vomiting
- Diarrhea (more common in children)

Pertussis Quick Facts
- Highly Contagious Bacterial Disease
- Severe paroxysms of cough (characteristic inspiratory whoop).
- Particularly severe in infants < 1 year of age.
- Transmission-Direct contact with aerosol droplets from infected persons.
- Immunizations recommended starting at 2 months of age.

Bronchiolitis-When Should the Healthcare Provider Worry?

Bronchiolitis is an inflammation of the bronchioles, the smallest air passages in the lower respiratory tract. This is a common illness in babies and young children, usually occurring during the winter and early spring between October and April. Bronchiolitis is typically caused by a viral infection, most commonly respiratory synctial virus (RSV).

Infants and children are usually tested for RSV and Influenza A and B when symptoms become worrisome and the child is hospitalized. However, is Bordetella pertussis, the bacteria that causes pertussis or whooping cough is becoming more common with 183 cases reported in Kentucky in 2008. The latest available report can be found at: http://chfs.kg.gov/dph/epi/reportablediseases.htm.

Most children will have had RSV by age two. Infants born prematurely, very young infants and children with weakened immune systems are most at risk. Young infants are nose breathers and RSV will cause secretions that block the nasal passages. Unable to clear these secretions themselves, infants can develop respiratory distress very quickly.

Infants can spread the virus for one to three weeks even after they have recovered from the acute illness. RSV can live up to six hours on surfaces and can easily be spread.
People of any age can contract RSV but the symptoms tend to be less severe in older children and adults. The best way to prevent the spread of RSV is good hand washing, keeping the child away from other sick children such as daycare centers. For those who qualify, Synagis®, a prescription medication is given in the months when RSV is most prevalent. For more information visit [www.cdc.gov](http://www.cdc.gov)

When a child is admitted to Kentucky Children’s Hospital with RSV, the treatment is supportive and is based on the severity of symptoms. Droplet precautions will be initiated. The younger the infant, the more likely he or she will require pediatric ICU care which might include oxygen therapy or mechanical ventilation to protect the infant’s airway. Suctioning and nebulizer treatments are given routinely if needed and antibiotics are given if a virus has not been identified.

Horacio Zaglul, pediatric intensivist at Kentucky Children's Hospital, suggests that a referring hospital should definitely consider transfer when the infant or child’s level of consciousness has changed related to child retaining CO2, cyanosis, unwillingness to drink, and/or the baby takes too long to feed because of exhaustion, and grunting.

Pertussis is a highly contagious bacterial disease of the respiratory tract. It is caused by the bacteria, *Bordetella pertussis*. The disease is characterized by the inspiratory whoop when coughing. This disease is on the rise in Kentucky. In 2008, 183 cases were reported. The Center for Disease Control and Prevention (CDC) recently reported the highest number of cases in 40 years. Children and adolescents from 10-19 years old make up 39 percent of the cases. It is theorized that this is because few people don’t realize that immunity from their pertussis vaccine wanes after five to ten years.

In 2005, pertussis containing vaccines were approved for administration to adults and adolescents. See the reportable diseases annual summary for more information: [http://chfs.kg.gov/dph/epi/reportablediseases.htm](http://chfs.kg.gov/dph/epi/reportablediseases.htm). Adolescents and adults are the reservoirs for pertussis which puts vulnerable infants at risk. The best way to prevent Pertussis is through vaccination.

According to Zaglul, if a pertussis diagnosis is suspected a child should be transferred to a tertiary care facility if he or she exhibits seizures caused by petechiae in the brain due to violent coughing, apnea, especially in children less than two months of age, or inability of an infant to feed which can quickly lead to dehydration.

Bronchiolitis can present with many worrisome symptoms, but knowing what to look for and who is at risk can help prevent many serious complications.

Influenza A & B are not as common in bronchiolitis but children and infants are tested because of their vulnerability to the flu’s complications. These complications include pneumonia, ear infections, dehydration, and worsening of chronic medical conditions such as congestive heart failure, diabetes, and asthma.

The flu is most prevalent in Kentucky from October through mid-May. Influenza is a serious viral illness but also a preventable one. See the reportable diseases annual summary: [http://chfs.kg.gov/dph/epi/reportablediseases.htm](http://chfs.kg.gov/dph/epi/reportablediseases.htm). The best methods of prevention are to receive the influenza vaccine yearly, practice good hand washing, and stay away from people who might present with symptoms of the virus. Children can be immunized for influenza at six months of age or older. Children with a severe reaction to egg protein should not get the influenza vaccine.
Kentucky Kids Crew

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Kentucky Kids Crew Wins Golden Stitches Award

Mary Margaret Colliver

LEXINGTON, Ky. (Sept. 3, 2010) – Kentucky Children’s Hospital has awarded the Golden Stitches Award to the emergency transport team known as Kentucky Kids Crew, a specialty team that provides inter-facility (hospital-to-hospital) critical care transportation for neonatal and pediatric patients.

The team was nominated by Dr. Erich Maul, assistant professor of pediatrics, University of Kentucky College of Medicine.

"The outstanding work these people do cannot be overlooked," said Maul. "Whether by air or ground, these nurses take their ‘can-do’ attitudes and bring the sickest patients to receive care at Kentucky Children’s Hospital. They are the first Kentucky Children’s Hospital health care providers to meet families, often in some of the most stressful times of that family’s life. Even under the duress of a critically ill child, every situation is handled with professionalism, grace and empathy."

"This is, without a doubt, the most cohesive, compassionate, professional group of nurses that I’ve ever had the pleasure to work with," said Marino, manager of the Neonatal/Pediatric Emergency Transport Team. "They epitomize the concept of team and have the innate ability to recognize and respond to an emergency situation with speed and skill, while at the same time providing calm, reassuring atmosphere for their young patients and their families. They are colleagues and friends and I’m so proud to be associated with the dedicated professionals who make up the Kentucky Kids Crew."

The award was initiated by Dr. Timothy J. Bricker, chair, Department of Pediatrics, and is presented quarterly to a Kentucky Children’s Hospital staff member whose work is making a difference in the lives of children. The recipient of the award is selected from nominations received from the medical staff of Kentucky Children's Hospital.

Introducing the newest member of our team!

Hannah Mika Ishmael, September 21, 2010 8lbs. 3.9oz and 21 inches

Congratulations Matt and Yoshiko Ishmael