

23 infants infected at CHOP after eye exams with contaminated equipment

By Tom Avril

Twenty-three infants contracted infections after eye exams in the intensive-care unit at Children's Hospital of Philadelphia, an outbreak that the hospital attributed to some medical staff failing to wear gloves, and a "lack of standard cleaning practices" of equipment used in the exams.

At least one child — Melanie Sanders, a premature baby born just before 25 weeks of pregnancy — died as a result of her infection, according to a lawsuit filed by the family. In its response filed with the Court of Common Pleas, the hospital denied that the infection led to her death in September 2016. Survival of such premature infants is uncertain for numerous reasons.

Shanin Specter, the attorney representing the Sanders family, also filed suit this month on behalf of a second child who died after becoming infected at the hospital. But Specter said he was still investigating what role the virus may have played in her death.

He described the hospital's use of contaminated equipment — including a device called an oph-

thalmoscope — as "shocking," especially given the fact that the patients were neonates — generally defined as babies less than one month old — being treated in the intensive-care unit.

"By definition they are vulnerable to serious injury or death from getting an infection, and then you don't wear gloves when you do an eye exam, and you don't clean the ophthalmoscope?" Specter asked.

The hospital described the 23 infections in a four-paragraph report in the June 2017 issue of the American Journal of Infection Control, but did not mention the patient deaths. Specter filed the Sanders lawsuit in December, then amended it this month after learning of additional details in the hospital's case study.

The 23 patients were infected with a kind of microbe called an adenovirus, the authors of the case study wrote. All 23 suffered respiratory symptoms, and five went on to develop pneumonia, the authors said. In addition, 11 of the 23 experienced infectious symptoms in their eyes. Six hospital employees and three parents also contracted viral infections.

"Observations revealed lack of standard cleaning practices of bed-

side ophthalmologic equipment and limited glove use," wrote the authors, all pediatric or infection experts from CHOP or the University of Pennsylvania. "Environmental sampling of two hand-held lenses and two ophthalmoscopes revealed adenovirus DNA on each device."

The microbes on the lenses and scopes were identified as adenovirus type 3, which can cause both conjunctivitis and respiratory problems, according to a summary by the World Health Organization.

In the intensive care unit at CHOP, it was transmitted at a high rate. The 23 cases represented more than half of the 43 infants who underwent eye exams in the neonatal intensive care unit in August 2016, the authors of the hospital's case study wrote.

CHOP responded by reinforcing the importance of hand-washing, stepping up equipment cleaning, and instituting a "staff furlough," according to the case study, which didn't specify the length or extent of the furlough.

Melanie Sanders was born in May 2016 at what was then called PinnacleHealth Harrisburg hospital, weighing just 1 pound 4 ounces. She was diagnosed with retinopathy of prematurity — an abnormal growth of blood vessels on the reti-

na — which can occur in premature babies and leads to severe vision loss if not treated.

The baby was transferred to CHOP in July and had a series of exams by eye doctor Graham Quinn, according to the lawsuit.

She began to suffer respiratory symptoms in mid-August, and tested positive for infection with an adenovirus, the lawsuit stated. She soon went into chronic respiratory failure and needed to have a drainage tube placed in her chest, in a procedure called a thoracostomy, on four separate occasions, according to the complaint.

Baby Melanie developed a bacterial infection on top of the viral illness, and died on Sept. 11, 2016.

In the lawsuit, her parents accuse the hospital staff of negligence and failing to use proper hygiene. In addition to wearing gloves and disinfecting the devices used in eye exams, hospital staff also could have prevented infection by using equipment that is disposed after one use, the family alleged.