

Caitlyn Matthews
03/28/2020
Movie Overview
Test 3

Extraordinary Measures

Extraordinary Measures is a movie that is based on a real-life story of a desperate family searching for answers when they were told they should prepare for the worst. This family never gave up hope and the results in the end showed. The movie discussed what the disease that Megan and Patrick had, the steps needed to help reverse the symptoms, the risks, chain of commands and protocols and the overall study with results. They had one year to come up with a drug that could help. This movie shows teamwork even at the hardest and most trying times.

Pompe disease, is a disease that affects the muscles and breaks them down. It usually affects the main organs such as the liver, heart and lungs. The life expectancy for someone who has this disease is 9 years. This disease is a genetic disorder and affects children from birth to the age of 9. Pompe disease enlarges the heart and the liver to dangerous levels.

The characters in the movie that had Pompe disease were named Megan and Patrick. Megan was an 8-year-old little girl. She had two other siblings, her youngest brother Patrick also had the same disease as her and he was 6. Megan always had a positive outlook on her disease and life and always encouraged her brother to do the same. The part of the movie that stuck out the most was when Megan and her family had gone to the park to feed the ducks. They had been taking bread and throwing it to the ducks when John had noticed that Patrick was only lifting his hand and wrist up and down. When John approached him and asked him what he was doing he stated that he couldn't feel his hand or fingers and therefore could not throw the bread to the ducks. Instead of freaking out the family made a game of it and joked with him which in return made him forget about what they couldn't do and instead they all laughed together. It takes a strong family to be able to do this. Megan at the beginning of the movie had a respiratory

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infection which was caused by a cold, but her body was unable to fight it which sent her to the emergency room than resulted in a stay in the ICU. The doctors told her parents that they had done everything that they could do but was unable to do anymore. John did not like this Idea and began to search for a doctor name Dr. Robert Stonehill who was a scientist that had been researching Pompe disease. Once John had met Dr. Stonehill this is where everything began coming together and hope was created. They however, needed a lot of funding that they didn't have. They raised 91,000 at first and then began looking for investors.

Once the deals where made and testing began, they all learned that an enzyme was needed to be created so help break down the sugars that had built up within the muscles creating a disease known as Muscular dystrophy. John and Dr. Stonehill learned that even though they had a theory no one wanted to invest what hadn't been created or proven to work or not work so they made a deal with Priozyme who then made basically a race of which scientist could come up with the correct formula to create the correct enzyme needed. They color coded the finished product of the enzymes, so no one knew who's whose enzyme was and then tested them to see which one worked. They narrowed it down to 2 enzymes yellow and green. From there things got complicated because in the end when it had been decided that the green enzyme was the correct enzyme that Priozyme would only conduct testing on infants as that is where the best results came from. John became upset with hearing this new that he broke into the lab and tried to steal the enzyme. Dr. Stonehill stepped in and helped him reach out to hospital to do something known as sibling trail testing. This test would be conducted on siblings with the same disease which meant that John's children qualified for this type of testing. Once the hospital

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agreed John learned that what he and Dr. Stonehill had just done was broke chain of command during a despite time.

Chain of command is a protocol that most companies have in place to keep a form in an office. A type of controlled chaos. In this movie John and Dr. Stonehill broke the chain of command. John did not like hearing that his children Megan and Patrick would most likely not receive the treatment and so he took matters into his own hands. He felt that with all the hard work they had put into this prototype they deserved a chance. John received a letter stating that his children had been excepted for the trail however, his boss was very upset that he didn't go to them first instead he took matters into his own hands which could lead to conflict of interest. After learning that he had jeopardized his children's chances he was terminated because the company felt if John had been terminated there wouldn't be a conflict of interest and that his children could continue with the trail treatment.

When Megan and Patrick began their treatment, they asked the nurse how or when would they know if the treatment was working. The only answer the nurse had for them is that in time the results would let them know. When Dr. Stonehill arrived at the hospital to check up on the family they heard a lot of laughing coming from the children's hospital room. When they went back to the room, they noticed that the children where laughing uncontrollable. Dr. Stonehill told John and his wife that the laughing was a side effect to the sugar that was breaking down within the muscles due to the enzyme treatment. This meant that the treatment was working. By summer Megan was able to sit up for the first time since he was an infant.

The treatment name was referred to as the "Special Medication" in the movie. It was manufactured in a lab known as Zymogan. They learned that when given at infancy that it would

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reverse the effects of the disease for life. Someone a little older like Megan and Patrick the medication reversed the effects. This proved that Dr. Stonehill's theories were correct.

Watching this movie has made me believe that with the right scientists, that do what they do, and research what they believe in can reverse or slow the progression of any disease. It takes people like John and Dr. Stonehill to basically prove that anything can happen. Yes, it all takes money but that is why they created the Foundation of Pompe and then presented the theories and formulas to get investors to bite at the theories.

References

Vaughan, T. (Director). (2010). *Extraordinary Measures* [Motion Picture].