The Florence Rothman Story: How a Loss Inspired Gain

Florence Rothman was diagnosed with aortic stenosis, which is a narrowing of the exit of the left ventricle of the heart. It's a condition that typically worsens over time, with symptoms building gradually. Exercise gets more difficult.

What Florence felt was constant fatigue. She wanted to get some relief. A low-risk surgical procedure was available, which promised to dramatically improve her quality of life. With thoughtful preparation, she proceeded to have the surgery. After the procedure, she seemed to be recovering nicely, meeting all the existing benchmarks and looking forward to going home. However, by day four, she became weaker and went through a slow, steady decline that was not detected until her condition became critical.

Each day, the physician responsible for her care would see Florence as recovering after heart surgery, but could not see the subtle changes in her health that reflected a complication. Because the indicators that could have prevented her needless death were too subtle to attract attention, the hospital treated her primary symptom and discharged her.

Unfortunately, four days later she collapsed and died in the ER from a relatively common, treatable complication that had gone unnoticed and undiagnosed. Florence did not die from a lack of effort. The hospital was a top quality facility with skilled and well-intentioned doctors and nurses. They just lacked a utility that allowed them to see trends in patient health over time. Those trends were visible in the EHR (electronic health record) data, but that data went unused.

Florence's sons, Michael and Steven Rothman, an engineer and a scientist skilled in data analysis, were inspired to give a voice to the EHR, to use existing data to improve healthcare, to create meaning from loss. They devoted their time to finding a preventative solution: the Rothman Index, which uses a simple score from 1-100 to identify a patient's condition in real time. Specifically, running the Rothman Index algorithm against the EHR creates a composite score of the most relevant leading indicators. A physician can then track progress or deterioration before a condition becomes critical.

So far, millions of patients have benefitted from the Rothman Index, giving Florence's avoidable death special meaning in preventing similar losses.