

Duane Mariotti, August 18, 2014

I do not know how many of you know who Dr. Joel Nobel was or had the pleasure to meet and speak with him. I had the opportunity of working with him for five years. Dr. Nobel was the Founder and President of what was then the Emergency Care Research Institute (ECRI).

Many things we take for granted today as biomed, were not around thirty years ago when Dr. Noble asked questions regarding engineering principles and scientific investigation of medical devices. He did landmark work on resuscitation, crash cart design (yes 30 years ago the crash cart did not exist as we know it) and turned the industry on its head by simply testing a bunch of bag valve mask (BVM) units and finding half did not provide enough volume, oxygen and numerous other parameters to resuscitate patients. This was the first issue of what was to become Health Devices - keeping with his objective attitude of engineering principles and scientific investigation he developed a culture to question and validate. Many engineers, such as myself, worked for ECRI for years and took this methodology into the hospital. Dr. Nobel was always proud not only of the people working with him, but also those who had worked for him and maintained their passion for patient safety and basically "spread the word".

ECRI went on to validate ambulances and the equipment carried in the ambulance. Many of today's standards (called KKK) for EMS equipment and vehicles were developed by ECRI and Dr. Noble reaching out to assure appropriate technology and patient care everywhere a patient was treated. Electrical safety testing, defibrillator, laser and ESU output testing, receptacle testing, medical gas testing and many other functions we do today he helped develop and standardize for our profession. Equipment databases as well as standardized descriptions, testing protocols, etc. were all developed by ECRI during hospital biomedical early years. Projects many of us work on today to properly manage technology from pre-purchase through surplus - technology management of medical devices - was developed and proven domestically and internationally under his guidance at ECRI. Work we do today to assure compatibility between medical devices, systems and facilities was something ECRI started educating biomed about in the 1980's. Laser safety, operating room fires, the list goes on and on of work he directed and mentored at ECRI that is now practiced daily to improve patient safety.

The biomedical profession has lost some of our foundation with Dr. Joel Nobel's passing.