

Simulation in Anesthesia at Mayo Clinic

By Laurence Torsher, MD

In 2003 it was recognized that simulation was going to play a major role in anesthesia training. Mark Warner asked me to investigate how we could bring simulation to Mayo's anesthesia department. I visited several simulation programs, brought visiting professors to Rochester, and joined in with other like-minded individuals on the Rochester campus.

In January 2005, working jointly with Drs. Torrey Laack and Deepi Goyal from Emergency Medicine we opened a 2-place simulation center on 3rd Alfred in what had formerly been 2 medical ICU beds.



Alfred Simulation center

At the same time as the Alfred simulation center was in operation, planning and construction was occurring on the Mayo Multidisciplinary Simulation Center on the main floor of the Siebens building. It opened in October 2005. It is still in operation today although it has been renovated and equipment upgraded continually since. In addition to the Alfred center and the Multidisciplinary center, the anesthesia department also built and ran a hands-on airway management lab in the Charlton building run by Dr. Chris Burkle.



Dr. Burkle in the Charlton Airway Lab



A simulation of a LAST in the Rochester Multidisciplinary Simulation Center

Dr. Paula Craigo and I were the initial Mayo anesthesiology simulation leads. Dr. Craigo went on to serve for many years as medical co-director of the Multidisciplinary Simulation Center. Simulation was utilized in hands on teaching throughout the anesthesiology residency program. In addition, anesthesia simulation was utilized within Mayo Medical School in their respiratory core module, in an “Introduction to Anesthesia” course. In conjunction with emergency medicine and hospital internal medicine we also developed a 1-week medical school course for 4th year medical students in which they “ran” a hospital floor managing medical and surgical problems.

Both Mayo Arizona and Florida have also developed simulation programs that run across departments.

As demand for simulation has grown, Rochester recently opened the Procedural Skills Mastery Lab in the basement of St. Marys Hospital. For anesthesia, it offers airway trainers, ultrasound trainers, line placement trainers, and virtual anatomy trainers.

At the same time as simulation was growing at Mayo, Mayo had representation at the national level with input into simulation’s role in ABA certification, through the OSCEs and MOCA. Mayo was within the first 5 simulation centers endorsed to offer simulation training for MOCA and Mayo Arizona earned that endorsement shortly thereafter.

Dr. Craigo and I have turned over simulation training at Mayo to the next generation of educators in Rochester: Drs. Licatino, Paul Warner, Woodbury, Lehrian, Huang, Hwang, Brakke, Esmailzadeh, and Sviggum. They are forging the future of simulation in anesthesia training in Rochester.