

1956: Introducing the post-operative intensive care unit (ICU)

Following its innovations that began the era of open-heart surgery, Mayo Clinic developed a complementary advance: the world's first dedicated post-operative recovery space in which open-heart surgery patients could stabilize and improve after the long, demanding procedures. Such a space is now known as the Intensive Care Unit (ICU).

This novel concept was a natural extension of Mayo Clinic's culture of caring, as well as its advanced, scientific medical practice and ethical leadership focused on meeting the needs of patients.

In addition to creating purpose-built and custom-equipped spaces to support highly individualized recoveries from complex procedures decades before the concept of "personalized medicine" emerged, Mayo developed an additional innovation: patient care delivered by highly skilled multidisciplinary staff members.

The Intensive Care Unit was at once practical and path breaking. It ensured patients were safe, comfortable and well supported, while also meeting the unprecedented demands on the body that open heart surgical procedures impose.

On October 2, 1956, the first patient was admitted to what then was called the Post-operative Cardiovascular Unit at Saint Marys Hospital, affiliated with Mayo Clinic. Sister Mary Brigh Cassidy, administrator of Saint Marys, explained that its services "may mean the difference between life and death" for patients, which drove the determination to innovate and continuously improve.

"We were learning all the time"

Sister Ellen Gillis was head nurse when the unit opened. She recalled "patients coming to the unit immediately after surgery. They were checked every 15 minutes ... This was all done manually; for example, the chest drainage equipment was on the floor and had to be read at eye level. I remember getting down on my hands and knees every 15 minutes to read at eye level. ... We had no air conditioning. When patients spiked a temp, we used sponges to bathe them with alcohol and ice to bring it down... There were no machines to tell us how a patient was doing, it was all observation and we had to be acutely observant. We were learning all the time, and so were the doctors."

Mayo was poised to lead the development of the ICU because of its expertise in the many areas that this complex form of recovery requires.

Among them are Mayo's:

- Rigorous education and training of surgical nurses and their full integration into the team.
- Innovation of creating the specialized field of nurse anesthetists, whose management of pain and patient consciousness is critical in long, complex operations.

- Highly specialized and coordinated surgical practice, which can quickly deploy specialists and subspecialists to manage the most challenging aspects of physiology, surgery and disease.

From its early development at Mayo Clinic, the ICU concept has spread to medical centers throughout the world. Originally associated with cardiac surgery, the ICU now provides post-operative care for neurosurgery and other advanced procedures.

SOURCES

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