



Tech Works®

Making Specialized Communication Easy

Project Profile

Patients' Voices Are Loud and Clear with Memorial Medical Center's Tech Works CI-Series System

Located in California's breadbasket, the San Joaquin Valley, Memorial Medical Center (MMC) of Modesto is affiliated with the Sutter Health family of not-for-profit hospitals and offers a wide variety of services. Standards are high at the award-winning Acute Care hospital, so when the staff could not hear patients over the old intercom system in the Radiation Therapy rooms, the hospital contacted the experts at systems integrators Quality Sound, in nearby Stockton.

"The biggest issue was that the old system did not enable the microphone to be positioned close enough to the patient," begins Quality Sound Vice President of Healthcare, Education, and Business Systems Sales Marv Langford. "The situation was simple and straightforward, and the issues were easily resolved with a Tech Works CI-Series Collaborative Intercom system."

The lead-lined Radiation Therapy rooms are small—approximately 12 by 15 feet—but due to equipment noise and other ambient sound, the patients' voices were not clearly audible. "For speech intelligibility in that environment, you need the voice to be at least 5 to 8 dB above the noise floor," Langford notes. "So we installed a Tech Works PRO-45 hanging cardioid condenser microphone, which can be easily positioned close to the patient. That made a big difference."

The Tech Works CI-Series system is a complete intercom, with all components designed to work together. For Memorial Medical Center's Radiation Therapy rooms, Langford chose a Tech Works CI-MSI-22 Microphone Speaker Interface, which enables a variety of audio intercommunications products to "talk" to each other over the Tech Works CI-Buss. The CI-MSI-22 can be used in a small intercom when connected to a single CI-Series product or as an addition to larger networked systems employing a variety of devices.



The Radiation Therapy room needs were straightforward, Langford recalls. "Outside of the room is a control desk, where we installed a Tech Works CI-ODC-1 Operator Desk Console, which includes a cardioid condenser gooseneck microphone and a speaker. Inside the room, we installed the PRO-45 hanging mic and an eight-inch ceiling speaker. Although it was a retrofit, we installed new CAT-6 cabling."

In addition to the mic and speaker, the CI-ODC-1 sports buttons and indicators that allow the operator to just listen to the Collaborative Intercom communication or to talk and collaborate hands-free. A headset jack on the side of the console allows connection of a local operator headset. The technology is sophisticated but very easy to use.

"Memorial Medical Center's team love the way the CI-Series system works," Langford relates. "They told me, 'wow, it sounds great; we can really hear the patient!' They liked it so much they had us come back to add background music for the rooms. We've installed the CI-Series system in two rooms at MMC so far and will probably do more. They are super happy!"

About Tech Works

Tech Works is a US-based manufacturer of high-quality, highly specialized communications systems for the healthcare, security, corrections, and education industries. Based in Yorba Linda, California, Tech Works was founded in 1984 with the goal of creating powerful communications solutions for the most demanding environments. Our products are designed to meet the unique challenges of our customers, in applications where clear communication can be critical.