



Cover Story:

COVID-19 Superheroes

368 **Paulo Moll:** Fighting the Pandemic in Brazil - Experience of Largest Hospital Network

374 **Adaora Okoli:** Tragedy of COVID-19

376 **Sabine Torgler:** Nurses Are Not Soldiers

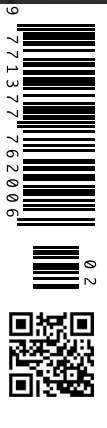
384 **Prof. Jonathan McNulty:** Radiographers on the Frontline

386 **Valérie Martin:** "Not in My Care Home"

392 **Elikem Tamaklo:** Burning Platform for Change: COVID-19 Experience in Ghana

396 **Lloyd Vincent:** Traversing the Unknown Frontlines - COVID-19 from a Resource Limited East African Setting

427 **Alberto Porciani:** Telemedicine in Time of COVID-19



Helping to Get Spain's Largest COVID-19 Treatment Center Up And Running

The severity of COVID-19 grew chillingly real for Carlos Jimenez by the third week of March, when the disease claimed the life of his closest friend's father. He realized that he could no longer bear to watch the suffering that had enveloped seemingly every aspect of life. "I would move boxes or whatever else I needed to do," he says. "I wanted to go to the trenches and do my part."

Another close friend, José Pérez Blanco, wanted more from him than moving boxes. As director of a major hospital outside of Madrid, Blanco was responsible for setting up a makeshift COVID-19 medical center at IFEMA, the largest fairgrounds in Spain. As an executive account manager for GE Healthcare in Spain, Carlos had overseen various medical equipment installations for Blanco's hospital. Now Blanco wanted him to do something similar at IFEMA – but on a much tighter schedule.

Carlos quickly realized that he couldn't help Blanco while also doing his day job. So he requested to take off all his vacation time at GE Healthcare.

The marching orders for his new job were short and clear, Carlos says: "I was told: 'People will reach out to you with needs. Your duty is to meet those needs. If you are unable to do so, you must find someone who can.'"

The COVID-19 center was designed to handle a lot of patients, with one of the larger pavilions possessing 750 beds and enough equipment to treat up to 1,350 patients. The problem was that important life-saving equipment, such as ventilators, electrocardiographs and monitors, were scattered throughout the facility, making them difficult and time-consuming to locate.

Carlos saw that it was time to get 'lean' at IFEMA. Lean management is a system of continuous improvement used throughout GE's businesses. It focuses on boosting production efficiency by reducing waste and creating more value with fewer resources. For the staff at IFEMA, that meant having critical equipment on hand when they needed it most. Carlos and his team began taking inventory, scouring every inch of the medical facility to hunt down ventilators, ECG systems and other technology.

They moved the gear to storage areas placed in front of each nursing station, arranging each item on shelving or carts. "That way people could raise their heads and see what was available," says Carlos. Next, they standardized how to store each machine, such as always placing rarely used equipment on the bottom shelf below eye level. To keep track of their equipment, Carlos set up old-school chart boards for inventory all over the hospital, requiring



healthcare workers to check the equipment in and out.

Carlos and his team set up visual cues that walked people through storing equipment properly. They lined the floors with tape to demarcate where each machine belonged, posted simple pictures of the proper setup and slapped red inventory numbers on each piece of equipment to easily spot its whereabouts. Within a few days, the number of broken machines dropped by 98%, and caregivers were able to deploy critical equipment within minutes. "That was the most gratifying thing to see," says Carlos. "It was not just implementing order for the sake of order but eliminating any undue stress on clinicians."

On May 1, IFEMA discharged its last patient. The hospital had treated almost 4,000 people in 40 days, housing 1,300 at the outbreak's peak. Rather than pausing to acknowledge their hard work, the hospital staff and its volunteers spent the next week figuring out a strategy to quickly relaunch the facility if another outbreak arises.

Carlos returned to GE in early May with a deeper understanding of what is needed to operate efficiently in an emergency. However, what he talks about most is the inspiring people he met at IFEMA. "The entire time, I saw people coming here and working 24 hours, not willing to go back home and not asking to be paid." People like him. ■

This article was initially published on GE Reports.