

How Real-Time Location Systems Can Help Contain Infectious Disease Outbreaks



Hospitals already have many tools in their toolbox to fight the spread of contagious diseases such as COVID or measles. Technology solutions can provide additional tools to assist in that crusade. Here are four ways Real-Time Location Systems (RTLS) can help contain outbreaks:

1. Contact tracing

Hospitals often admit new patients without knowing if they are carrying a communicable disease. We only know if a patient is a carrier after a medical evaluation and test results. In this situation, we put at risk many of our patients and staff who were exposed to the carrier in the waiting room, exam room, or lab. With the assistance of an automatically generated contact tracking report which leverages data collected by Real-Time Location Systems (RTLS), healthcare organizations can take the necessary steps to minimize the spread of the disease. These steps can include quarantining staff and patients, and sterilizing potentially contaminated equipment. For example, our healthcare clients can leverage RTLS data to implement an effective communications strategy. Since their patients and staff all wear RTLS badges, the facility can run a contact tracing report and send out targeted messages to everyone who came into contact with an infected patient.

2. Automated air-pressure monitoring

Condition sensors can also provide needed assistance with the containment of infectious diseases. With pressure sensors, hospitals can constantly monitor air pressure conditions of rooms which require a constant positive or negative air pressure per ASHRAE regulations, such as positive air pressure in patient rooms and operating rooms, and negative air pressure in isolation rooms and soiled utility rooms. If the pressure levels go beyond an acceptable threshold, the proper staff is alerted so corrective actions can be taken immediately. This ensures environmental safety in case of “out-of-range” situations, and allows clinical and engineering staff to eliminate time-consuming manual compliance logging, enabling them to focus on tasks that cannot be automated.

3. Asset locating

During an outbreak, hospitals inevitably experience an influx of patients, which creates an increased need for essential medical equipment like ventilators, powered air purifier respirators, and infusion pumps. With a Real-Time Locating System (RTLS), medical personnel can use a search function to immediately find needed equipment. In addition, the Environment Services staff can be notified automatically to retrieve soiled equipment, minimizing the risk of exposure and enabling equipment to be circulated back to the pool of clean inventory (after proper disinfection procedures).

4. Handwashing monitoring

The importance of thorough handwashing in a situation like the COVID-19 pandemic is unquestionable. By simply wearing a location-enabled badge, Real-Time Location Systems can remind staff to follow proper hand hygiene protocol at critical moments. This little reminder can be the difference between preventing a spread of coronavirus or causing it. If your organization has already invested in RTLS for use cases such as asset management or nurse call integration, the infection prevention and containment use case should be the next logical step in your RTLS progression.

The CenTrak team can assist with creating a fast-track plan to implement RTLS-enabled solutions that aid in preventing and containing outbreaks. If your organization does not have an RTLS system in place, this might be the tipping point in deciding to invest in RTLS.