Vocera COVID-19 Use Case Library

We've organized a Vocera® COVID-19 Response Task Force to define simple configurations of our technology that customers can use to make communication more efficient and potentially more effective in this pandemic. Some of these use cases were defined and put into production by our customers. Others come from our own ideas and experience. All begin by defining a scenario in which a customer would find themselves during these unprecedented times.

Our service and support teams at Vocera can help you implement many of these use cases at no cost if you don't have time or are not sure how. Large deployments of some more complex use cases may require a paid services engagement; ask about our special COVID-19 pricing promotions.

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Communicate Efficiently and Safely

1. **Communicate safely and efficiently while wearing PPE.** Staff can wear the Vocera Badge or Smartbadge under PPE, with or without a wired or Bluetooth headset, to communicate safely throughout a shift and preserve PPE. Enable hot word detection on the Smartbadge so staff can say, "OK Vocera" to initiate communication. Staff receiving a message on the Badge or Smartbadge can say, "Play text messages" and the Vocera Genie will recite the message. Staff can respond to the message verbally using the "Record a message" command.

2. **Keep staff connected while at home.** Hospital staff can log in to your hospital communication system with their Vocera smartphone app while at home or outside of the hospital.

3. **Make sure the communication loop is closed.** Configure rules and roles for auto-escalations when someone is in Do Not Disturb or declines an alert to ensure no messages are lost.

4. **Make it easy for care teams to reach people in the community *outside* the hospital.** Add outside numbers to your Global Address Book on the Vocera Voice server. This will allow care team members to directly call the local department of health, surrounding hospital command center, infectious disease office, local clinics, another hospital or health system, and more – without needing to search for phone numbers or connect to a telephone.

5. **Allow Vocera users outside the hospital to reach users *inside* or *outside* the hospital.** In a time when more people are working outside of the hospital, configure your solution so users outside the hospital who are licensed for Direct Access can call a direct access number, use their name and password to authenticate, and use the Vocera Genie to call another Vocera user or a number in the Global Address Book on the Vocera Voice Server. This eliminates the need to ask an operator or unit secretary to find a person manually.

Communicate with Groups

1. **Prepare ED staff for an incoming COVID-19 patient.** Configure your solution so EMS can communicate with ED staff while in transit with a suspected COVID-19 patient. Examples include EMS using a Vocera smartphone app to call the ED charge nurse on his or her Vocera device. The ED charge nurse can instruct EMS to bring the patient to the negative pressure room and send an urgent broadcast to the incident response team (i.e., "Code 19: ETA 7 minutes, ED Bay 4"). Care team members can don PPE prior to the patient's arrival.

2. **Safely admit and triage a walk-in patient who is possibly COVID-19 positive.** For example, if a walk-in patient is showing COVID-19 symptoms, the triage nurse can send an Urgent Broadcast (i.e. "Code 19 Triage Area") to the appropriate response team from their Vocera Badge or Smartbadge while wearing PPE.

3. **Mobilize response teams.** Configure your solution so urgent information can be communicated quickly to a specific group, such as a COVID-19 response team, without overhead paging. Users can send a message using a Vocera template or place a call with a Vocera device or smartphone app. For example, EMS en route to the hospital with a suspected COVID-19 patient can let the COVID-19 response team know they're coming. The response team can then prepare for the incoming patient.

4. **Mobilize your COVID-19 leadership team.** Configure message templates to quickly communicate urgent information to your leadership group. Examples include an urgent request to join a conference call, or updates on triage area backlog.

5. **Enable instant communication with the entire incident-response or infection-control team.** Configure a variety of COVID-19 response groups so users can quickly and easily call or send a message to all members of the group. This can be used for regular and/or urgent communications.

6. **Reach a group of subject matter experts easily.** Use the Call by Group functionality so users can reach experts easily. For example, a non-critical care physician redeployed to treat COVID-19 patients can use her Vocera device or smartphone app to reach the right specialists when she needs assistance or information.

7. **Unify staff working in a multi-campus environment.** Address Book entries can be defined for specific hospital sites within a health system, or they can be assigned for the entire health system - the Global Site. By assigning roles and specialty information to entries in the Global Address Book, anyone within the health system can reach individuals by name, role, or specialty from their Vocera smartphone app or wearable device. For example, a community-based physician whose patient is hospitalized at a health system's main campus can easily connect with the on-call physician of the team caring for the patient. Similarly, if a referring physician needs to locate and contact an appropriate subspecialist for a question or consultation, information within the directory can help speed that process.

Push Notifications to the Right People

1. **Flag a positive COVID-19 patient or test result.** Add an alert heading to an urgent lab result, call, or STAT order. For example, configure your solution to indicate that a patient who is the subject of a call or notification is COVID-19 positive. An urgent header will appear on the recipient's Vocera device or smartphone app indicating the notification is critical.

2. **Allow caregivers to be notified immediately with a patient's COVID-19 test result or when risk factors are present.** Configure your solution to allow caregivers to receive immediate notifications from your lab system or clinical surveillance system on positive or negative results. Critical lab values and patient vitals indicating COVID-19 can be sent from the EHR to clinicians.

3. **Send pulse oximeter alerts to the right recipient.** Configure your Vocera system to send pulse oximeter alerts with certain parameters or thresholds directly to the attending nurse or respiratory therapist's Vocera device or smartphone app to raise awareness of COVID-19 indications.

4. **Accelerate room turnover workflows**. Configure your system so that once staff enter patient discharge or transfer information into the EHR, a bed cleaning request alert is sent to Housekeeping/EVS to clean the room. Housekeeping/EVS receives a bed cleaning request on their Vocera Badge or Smartbadge and is prompted to verbally respond when the cleaning is in progress and complete. Responses from Housekeeping/EVS can automatically update the status in the EHR in real time.

5. **Push COVID-19 policy updates to the right team members.** Make it easy for care teams to receive regular updates on changes to policies related to COVID-19, such as visitor policies or PPE requirements. Push out messages to Vocera smartphone app users containing links to internal or external websites containing current hospital protocols.

Facilitate Patient and Family Communication

1. **Allow patients and family members to connect with a specific caregiver.** Configure your solution so a landline phone in any hospital room can be used to reach a care team member. For example, a patient or family member can dial 111 to reach their assigned nurse or dial 222 reach the respiratory therapist.

2. **Make it easy for patients to discretely receive their COVID-19 lab results.** Set up a centralized phone number for patients to call to receive their COVID-19 lab results using the Vocera Genie Access Number. The patient's call can be automatically routed to the remote test results notification team, so the patient can receive their results quickly and discretely.

3. **Connect patients with their families through a pillow speaker.** Using the Vocera Badge or Smartbadge, a nurse can use the command "dial an outside number" to call the patient's family member. The nurse puts the call on hold and transfers it to the patient's pillow speaker so the patient and family member can have a conversation.

4. **Round on patients, virtually.** Staff conducting patient rounds virtually – calling an inpatient in their hospital room or calling an outpatient at home – can use the Vocera Care Experience *Rounds* solution to document the sentiment of the call. For example, patient experience team members can ask the patient about the quality of care they are receiving over the phone and document the patient responses in the app on their tablet. They can also ask if there is anything that can be done to make the patient's stay more comfortable, such as facilitate remote contact with a family member.

5. **Enable nurses and patients to communicate in temporary pop-up bed locations lacking nurse call.** Many rooms and beds in pop-up bed locations don't have nurse call. For isolation pop-up locations, a nurse must don full PPE to communicate with the patient. Patients don't have a way to communicate with their nurse. Families are unable to connect with their loved one.

    Help restore the human connection between care teams and patients with a new feature for use with Vocera devices. Secure a Vocera Badge or Smartbadge near the upper torso of each patient bed. Log into the device with a generic profile such as "Room 5 Bed 1." Set the generic profile to auto-answer with no other actions permissible.

    Care team-to-patient communication. When a nurse needs to speak with the patient, the nurse simply presses the Call button on his or her Vocera Badge and says, "Call Room 5 Bed 1" from anywhere outside the room. Staff can also call from a landline, or from a Vocera smartphone app or web client. The Badge or Smartbadge attached to the patient's bed auto-answers (the patient does not have to touch the Badge), and the nurse and patient can communicate quickly and safely.

    Patient-to-nurse communication. When the patient needs to contact the nurse, simply press the call button on the Badge to reach the assigned nurse.

    Note: If the Vocera B3000n Badge is attached to the bed, the battery will need to be swapped every 8-12 hours. If the Vocera Smartbadge is attached to the bed, in addition to the battery, it can be plugged into an external power source using a USB-C charger. Vocera hardware and software are not intended to replace a UL 1069 nurse call system. The care team connect feature is intended to enable communication between patients and care teams in temporary bed locations.

Offload the Burden of Managing and Tracking Details

1. **Offload the need to remember who's working on the COVID-19 team.** Use the On-Call Schedule feature for COVID-19 team scheduling. Hospitals using Vocera Collaboration Suite and the Vocera Messaging Platform Web Console can take advantage of the app's on-call scheduling feature. Hospital staff can easily send a message to the on-call group knowing that the correct users will get the message.

2. **Simplify ventilator alarm descriptions.** Hospitals using Vocera Engage can configure their system to simplify terminology and include actions based on the ventilator alarm type. Engage provides flexibility to

allow you to modify the Heading description of a ventilator alarm notification to adapt for use by clinical staff without familiarity or years of experience in critical care or intensive care units. Engage also allows you to include URL links in alarm notifications so staff can view clinical reference material or CDC educational content.

3. **Set task reminders.** Staff can set reminders for themselves, another user, or a group of users using the Record a Reminder function.

Support Staff Well-Being

1. **Remind staff to pause and practice mindfulness.** Practicing mindfulness can reduce stress, sharpen concentration skills, and contribute toward overall mental and physical health. Vocera Badge and Smartbadge users can say "Play mindfulness" to spend 30 seconds, one minute, or five minutes.

Vocera Customer Stories from the Frontline

Hardin Memorial Health – Louisville, KY

As healthcare professionals continue to find ways to get personal protective gear to the front line, the Vocera Badge is helping keep clinicians at Hardin Memorial Health conserve PPE.

"Right now, in the midst of a little bit of extra tension and stress, with processes changing practically daily, isolation materials in place, and personal protective equipment on, we are still able to communicate in real time." – Deanna Parker, Assistant Vice President of Emergency Services at Hardin Memorial Health.

Intermountain Healthcare – Salt Lake City, UT

Remote pharmacists at Intermountain Healthcare use Vocera technology to communicate with on-site hospital care teams. On-site hospital care teams can easily connect with the responsible clinical pharmacist by calling them using their Vocera Badge. For example, a nurse working in one of Intermountain Healthcare's hospitals can say "call remote clinical pharmacist" from his Vocera Badge or Smartbadge and he will be connected to the responsible clinical pharmacist.

Bairnsdale Regional Health Service – Bairnsdale, AUS

Staff working under the tight infection prevention protocols can communicate with other parts of the hospital without having to don and doff PPE, or cross between COVID-19 protected areas, using the Vocera Badge.

"It's been a real game-changer. It saves us a lot of legwork and allows us to get help quickly when we need it. In a place like Maddocks Gardens, which is a large building with a number of different areas, that's been really important." – Carolyn Morgan, Aged Care Educator at Bairnsdale Regional Health Service.

University of Chicago Medicine – Chicago, IL

Sue Murphy, RN, BSN, MS, is the Chief Experience and Innovation Officer at the University of Chicago Medicine. Sue and her team built a rounding program prior to COVID-19 in which leaders would check in on patients, solve immediate comfort needs, and gather feedback on care. At the onset of COVID-19 infection control protocols that precluded in-person rounds, Sue and her team pivoted to virtual, phone-based rounding. The team is creating connection and caring relationships that support recovery from the stress of a COVID-era hospitalization before the patient leaves the hospitals and helping care team members know they are not alone in caring for patients.

Hospital in Manchester, ENG

This UK hospital uses the Bluetooth functionality of the Vocera Badge to connect the Badge to a Bluetooth speakerphone. This allows a large group of team members in one room to communicate with a team member working in isolation, like having a conference call.

Hospital in Boston, MA

This hospital is caring for patients in a 1,000-bed field hospital. While wearing PPE, care team members use the Vocera Badge to communicate with each other there.

Hospital in Bronx, NY

When a COVID-19 patient is discharged from this hospital in New York, a nurse from the COVID-19 unit informs the Vocera System Administrator. The System Administrator then initiates a broadcast to everyone on their Vocera Badges that says, "A COVID patient has been discharged from the ICU!" while a celebratory song plays.

Hospital in Denver, CO

Nurses at this hospital wanted to be able to quickly connect patients and their family members through Vocera technology. Their Vocera Systems Engineer set up a workflow where a nurse uses the Vocera Badge to call a patient's family member on their cell or home phone. Then, the nurse transfers the call from the Badge to the patient's pillow speaker to connect the patient and family.

This hospital's Mobile Swab Team is uses Vocera technology to stay connected while testing patients in their drive-thru testing stations outside the hospital. Teams working outside hospital walls can easily communicate with the COVID-19 team inside the hospital to quickly coordinate patient care without needing to travel and risk potential exposures.

Hospital in Hampton, Virginia

Two outpatient psychiatrists at this Virginia facility requested that their Vocera Systems Administrator create a Vocera group for their Stress Management and Relief Team (SMART). They have been encouraging staff and patients to call SMART as needed, for emotional support. Both staff and patients at this hospital also find the Play Mindfulness feature on the Vocera Badge and Smartbadge to be very useful in supporting their well-being.

This hospital also created a group for COVID-19 Runner to accommodate the need for staff to reach the lab person assigned to pick-up and drop-off lab specimens and equipment for the COVID-19 unit.

Hospital in Livingston, NJ

This hospital set up several triage tents in their parking lot. They set up wireless access points in the tents to make sure they could use Vocera technology to communicate with staff working in the triage tents and within the hospital.

Hospital in Los Angeles, CA

This California facility set up a group for their quarantine unit, so staff wearing the Vocera Badge under PPE and working in triage tents can communicate efficiently with the quarantine unit inside the hospital. They also created temporary groups for COVID-19 runners who escort sick patients from tents to the ED, and from the ED to the quarantine unit. Another temporary group was created for security guards who

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screen patients at hospital doors – if a patient shows symptoms of COVID-19, the security guard calls a runner who escorts to the patient to the triage tent for evaluation.

Nurses at this hospital have been using their Badges to help patients on ventilators communicate with their families. For example, a patient wrote his family member's phone number and a message to them on a sheet of paper. His nurse was able to call the family and read them the message in front of the patient and his family was able to talk to the patient through the Badge.

Hospital in New York, NY

This orthopedic hospital implemented the care team connect feature to support overflow COVID-19 positive patients from another nearby hospital in NYC. A Vocera Smartbadge was secured to each patient bed so patient rooms could quickly be turned into ICU rooms. Hospital staff could communicate with patients and with each other while wearing PPE. They enabled hot word detection on the Smartbadges so the devices could be activated hands-free by simply saying, "OK Vocera."

Hospital in Seattle, WA

When the COVID-19 pandemic first hit Seattle, this hospital was one of the first in the United States to confront the virus. Hospital leadership ordered additional Vocera Badges so all staff could communicate via the Vocera Platform. They wanted to make communication between screeners and the COVID-19 Response Team – a variety of charge nurses, the police, and patient transport – easy and safe. Even the hospital's Telehealth Team uses Badges since they need to be accessible as they move throughout the hospital.

This hospital also created a unit for the COVID-19 positive homeless population. They extensively rely on Vocera technology for communication in this very challenging environment.