Excellence leads the way.

A playbook for navigating the clinical and operational challenges of a global health crisis

RUSH

As of 3/19/20
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Executive Summary:

On March 2, 2020, Rush University System for Health stood up a Hospital Incident Command Center, or HICS, in anticipation of the growing number of COVID-19 cases in Chicagoland and the nation. The command center structure provides an organized system of command, control and coordination to eliminate potential confusion that may develop in these types of emergencies or events. It is an effective management tool consisting of procedures for organizing personnel, facilities, equipment and communication at the scene of an emergency and is flexible and scalable to be used for incidents of any size and adapted to the specific incident.

In the case of the 2020 COVID-19 outbreak, Rush proactively set up the command center to prepare for what would inevitably affect our operations significantly. Throughout the process, lessons were learned and the dynamic nature of the situation affected our ability to consistently handle and anticipate every need. This playbook is meant to serve as a resource for others faced with similar situations and help all of us get a head start on providing the best care possible in a crisis.
Hospital Incident Command Overview

During a disaster, emergency or event with the ability to affect daily operations, the Hospital Incident Command System (HICS) and Hospital Command Center (HCC) become operational. In a situation like the COVID-19 outbreak, Rush’s immediate action to “stand up” the HICS process was imperative. As a first step, the incident commander position was activated, and other HICS positions were activated based upon the scenario and the operational objectives identified by the HCC. The identified HICS personnel have been trained in the National Incident Management System (NIMS) and identified through the HICS system.

Key Personnel:
As part of the overall Hospital Incident Command System, the following roles were assigned to key medical center personnel:

HICS Command Staff
- Incident Commander
- Operations Lead
- Disaster Medicine Specialist
- Medical Technical Specialist
- Public Information Officer
- Technology Lead
- Safety Officer
- Liaison Officer
- University Lead
- Command Center Manager

HICS General Staff Assignments
- Medical Director
- Medical Care Section Chief (Inpatient & Outpatient)
- Planning Section Chief
- Logistics Section Chief
- Operations Section Chief (Inpatient & Outpatient)
- Finance Section Chief

Unit Leader / Branch Director Assignments
- Security Branch Director
- Bed Management Unit Leader
- Support Branch Director-Employee Health and Well-Being Unit Leader

Command Center Infrastructure

A selection of organizational tools have been deployed within the command center to track both patients under investigation (PUIs) as well as project management efforts.

PUI Tracking Dashboards

Dashboard of Informational Awareness

A combination of Excel, REDCap and Maestro was used to review PUIs both locally and nationally as well as understanding of hospital capacity and flow. Efforts are underway to use predictive analytics to track supplies and absenteeism as potential indicators for virus spread. Epic registries are also being created to standardize and centralize PUI tracking for patients and employees.
National and Local Dashboards

For virus spread, Epic registries are also being created to standardize and centralize PUI tracking for patients and employees.
Project Management Dashboard:
Command center personnel with view and edit access have the ability to update and/or review the Trello Dashboard, which contains the following key workstreams:

- Situational Awareness
- Daily 4 pm Workgroup Report Outs
- Patient Screening
- Patient Care
- Surge Planning
- Visitor Management
- Employees/HR/Workforce
- Supplies/Equipment/Cleanliness
- Staff Training
- Communication

Communication Channels

Contact Numbers
Inbound COVID-19 questions and inquiries came in through a variety of channels, both internal and external, and were directed in the following ways:

- Patients, visitors and employees with general questions about Rush’s plans, prevention, those experiencing symptoms and more were directed to the Rush Call Center, 24-hours a day, seven-days a week.
- Employees with questions about patient care and issues specifically related to COVID-19 were instructed to call a hotline number connected directly to the Hospital Incident Command Center.

Cisco Webex
Cisco Webex is used to conduct twice daily web-based meetings. HCC report-outs occur at 9 am and 4 pm and include all command center staff. Virtual meetings allow command center team members to share critical information seamlessly while avoiding large gatherings. In addition to Webex meetings, the Webex Teams app is used for smaller workgroup chats and discussions throughout the day, which allows for easy information and document sharing.

COVID-19 Questions Website
As questions and concerns regarding COVID-19 naturally escalated, it was recognized that a virtual platform to answer questions would be useful. Members of the Rush community submit questions about COVID-19-related issues by logging into the Rush intranet and clicking on the “I want to submit a COVID-19 Question” link. Users can add a new discussion item or review previous question threads submitted by others. All question submissions are monitored by the HICS team and routed to subject matter experts as necessary.
Mobilization Team

In its initial iteration, the Command Center Mobilization Team was a roving team of clinical and administrative leaders that served as a calming presence to support staff and the infection control team in the management of care for patients under investigation (PUI) or with COVID-19. This often involved troubleshooting operational needs such as supply challenges, patient movement/transport, room management or clinical support – including coaching employees and observing for compliance with personal protective equipment (PPE). Rounding in clinics and inpatient units during downtime was encouraged.

The team has since evolved and now includes a more comprehensive set of responsibilities, some of which appear below:

• Every four hours consult the Epic Isolation Access screen in the command center to stay current with the locations of current PUI isolated and COVID-19 positive patients.
• Every four hours update COVID-19 Inpatient Placement Awareness Team (e.g., Pharmacy, CE, EVS, Dietary, Transport, Supply Chain, Nursing, Hospitalists) to the location of current patients who are PUI or have tested COVID-19 positive. This group site can be used for communication of issues to the Mobilizer Team that requires support.
• Remain in constant contact with the Hospital Operations Administrators (HOAs)/COVID Bed Placement Team by carrying the Mobilizer phone to be aware of available COVID-19 beds and to determine the need to begin planning for additional opening of units designated for COVID-19.
• Ensure that the Roaming PPE Training Team are available to train unit personnel caring for either COVID-19 positive patients or PUIs.
• Collaborate with the ED, the HOA and Patient Placement to identify the care location that the admitted patient will be relocated to. The goal will continue to be to identify appropriate PUIs and/or positive COVID patients expeditiously and then place patients on the designated COVID-19 areas.
• Work with Guest Relations/HOAs to mitigate visitor/family issues related to either visitor restrictions and/or discharge education/disposition.

Additional activities to continue:

• Round with the goal of keeping staff calm, ensuring that unit staff have the PPE and other resources needed to provide excellent patient care
• Serve as runners for the Incident Command taking specimens to the lab or delivering PPE supplies to units
• Ensure that PPE donning and doffing is being performed appropriately if asked to observe/assist in the ER or on the units
• Set up Webex connectivity to the command structure to allow for remote conversations
• Set up a duplicate command center with other leaders to avoid the possibility that an infected leader could contaminate key personnel
• As guidelines evolved, instituted a rule of no more than 10 leaders in a room

Activities that should not be assumed by the mobilizer:

• Serving as the team handling the 7-SAFE calls
• Donning PPE and going into rooms where patients are being worked up or isolated for COVID-19

Communications Strategy
Communications Strategy Overview

At the first mention of the COVID-19 outbreak, Rush’s Department of Marketing and Communications began monitoring its spread and preparing in a variety of ways to handle the impact the virus would inevitably have on the entire Rush community.

Focused on a mission to help Rush stakeholders get early and adequate information while expanding Rush’s leadership position, Rush’s Associate Vice President of Strategic Communications developed and led a strategic communications plan with support from outside counsel. It was created with input and guidance from Hospital Incident Command leadership and guided the communications team’s participation in the HICS process and daily response.

Communications Goals

• Position Rush as the trusted expert on COVID-19 by showcasing leadership in infectious disease readiness nationally and locally
• Ensure that our community of employees, students, patients and visitors feel that Rush is safe to go to for care and that staff feel protected and prepared
• Inform all staff daily of current status, changing policies, how appreciated they are and why they are safe at work
• Share critical treatment and prevention information to Rush’s community, including the most vulnerable groups
• Educate in- and outpatients that Rush is prepared and they are safe and protected from infection
• Combat the spread of misinformation with reassuring, factual, evidence-based expert information through as many channels as possible

Key Messages

• The health and safety of our patients is Rush’s first and foremost priority. No matter what illness we are treating at Rush, we have in place all the necessary precautions to ensure patients’ safety — whether patients are coming for an office visit, hospitalization or to see someone else on campus.
• Rush cares deeply about the health and well-being of the community.
• We are leveraging our expertise in the use of technology to safely deliver care — through e-visits, video visits and the MyRush App.
• Responding to a major public health concern such as the spread of COVID-19 is when Rush’s excellence is most apparent.
• The Rush Tower is an ideal Chicago location for these patients to receive care, should cases be confirmed. Why?
  ▶ It was built with exactly this type of situation in mind.
  ▶ As one of only 35 hospitals recognized by the Centers for Disease Control as a leader in infectious disease treatment, Rush University Medical Center is uniquely equipped to meet these patients’ needs, as well as others who may contract this novel coronavirus.
• With 40 negative pressure rooms and the ability to scale up further, our facilities are extremely well equipped should the presence of the virus in Chicago escalate.
• Negative pressure rooms are designed to let air into the room, but not escape the room.
• Rush worked closely with government agencies to protect public health.
• There is one simple way to protect yourself from coronavirus: Wash your hands.
• At this time, our best medical advice is simple: Keep calm and wash your hands.

Watch video
Internal Communications

In an effort to keep our managers, employees, clinicians, students and faculty informed and empowered to perform their jobs safely and effectively during this crisis, the communications team mobilized an internal communications strategy to create a source of truth for all Rush employees. Using a variety of tactics to educate, inform and reassure internal audiences about how the virus is spread and contained, consistent communications were distributed on a regular, daily basis and in-person leadership communications were emphasized with the following internal audiences:

- Leadership
- Managers
- Boards of trustees
- Clinicians
- Students
- Faculty
- All staff at all levels

Internal Tactics

- Daily 4 pm all-Rush email organized consistently into three main areas:
  - Patient update (providing daily COVID-19 case numbers at Rush each day)
  - Resources for you (useful links, guides, references, etc.)
  - Guidelines to follow (important guidelines that need to be followed by all employees)

- Face-to-face leadership rounding done in the following ways:
  - Managers were provided with a “Leadership Rounding Tool” encouraging daily rounding in their areas to share messages, solicit feedback and answer questions. Managers were asked to conduct a daily survey to convey concerns and issues uncovered during daily rounds.
  - Every senior leader was encouraged to spend at least 30 minutes a day being “present” in different locations throughout the system to talk with employees, hear their concerns or answer questions – conference rooms, cafeteria, lobby, break rooms, university hallways, departments, etc.

- Weekly town hall meetings (via Webex only) structured as a panel of Rush’s most senior leaders and disease experts with Q&A

- Rush intranet site “COVID-19 Updates” refreshed daily with new information, including digest of what went out each day

- Twice weekly leadership meetings (via Webex) to address manager concerns and answer questions

- Visual tools like posters and fliers regularly produced and updated with useful reference information, contact information and messaging

- Videos
  - CEO video reassuring staff of their safety during the crisis and how to keep self and family safe from virus transmission
  - Training video on properly donning and doffing personal protection equipment
  - Two coronavirus videos featuring Chief Medical Officer dispelling myths and providing expert information on prevention
  - Mental health and well-being video featuring Rush’s Chief Wellness Officer and Chief Medical Officer to address employee anxiety and concerns

- Rush Leader News newsletter regularly distributed with guidelines for managers, resources and talking points for leaders to use in huddles and meetings

- Division-specific communications sent out regularly to employees from division leader

- Internal hotline phone number for staff questions and “Ask a Coronavirus Question” intranet page directs employees to web resources; new questions funneled to communications and HR teams so Q&A regularly updated
External Communications

In addition to communicating safety, training and resource information to our internal audiences, reassurance and expert advice was critically necessary to deliver consistently and frequently to external audiences. Leveraging local and national media in addition to social media channels and posters, fliers and billboards, Rush took a multidimensional approach to spreading the word about Rush’s coronavirus preparedness. With a focus on positioning Rush as a trusted resource that cares deeply about its community, the communications plan included a number of tactics to employ to engage the following external audiences:

• Patients – inpatient, outpatient and prospective
• General public
• Media
• Elected leaders – federal, state, local
• Community partners, churches and other organizations
• At-risk community members

External tactics

• Routine, daily posts on all of Rush’s social media channels including:
  - Instagram (IGTV, feed and stories)
  - Facebook (posts and live)
  - Twitter
  - LinkedIn
  - YouTube
• Large format environmental graphics and digital
  - 130’x15’ high “Wash your hands” installation
  - Digital billboard on major expressways
• Videos including:
  - Children demonstrating how to wash their hands with pediatrician advice
  - Advice and expert opinion video featuring chief medical officer
  - Updated advice and expert opinion video featuring chief medical officer giving up-to-the-moment updates on spread and what to do if exposed or fearful of being exposed
• Podcasts including:
  - Q&A with infectious disease physician and regulatory and clinical effectiveness nurse
  - Updated Q&A with infectious disease physician and regulatory and clinical effectiveness nurse
• New Rush.edu page featuring updated news, advice, videos and resources for patients and visitors
• Electronic digital boards in Chicago area encouraging safety and hand hygiene (include photo)
• Mirror clings in bathrooms in more public locations near and in elevators – include resource for deeper dive on information/website (photo?)
• On-hold messaging related to readiness and visitor policies
Inpatient communications

• Flyers/posters posted throughout the Medical Center in public spaces and waiting areas
• Messaging on TVs in patient rooms

Outpatient communications

• Call Center scripts provided for all who regularly answer phones and interact with patients – with answers to basic questions – updated routinely based on input from Call center and important news
• MyChart messages distributed to all users
• Sent emails to 130,000 patients who have been to Rush within the last three years
• Proactive messaging to outpatients as part of appointment confirmation
• Messaging in waiting rooms
• Messages posted all along the patient “journey” – from parking lot to lobby/registration to patient floor
• Video visit promotion in every channel including signs in local businesses, hotels and off-site areas encouraging video visits with small information card and QR code leading directly to scheduling (photo?)
• Hundreds of media stories pitched and run each week commanding the local media with great quotes about our expertise and readiness with in-house patient (include screen shots)
• Rush Experts Memorandum sent to all Chicago media, including Chicago Bureau of National Publications
• Media team proactive with national media, securing stories with CBS National, CNN, New York Times and CNBC
• Invited and hosted local, state and federal officials to tour Rush University Medical Center, with specific emphasis on the isolation rooms and Rush readiness
• Letter to government officials from CEO highlighting Rush’s capabilities and readiness to care for our community
Community Communications
Rush’s Community Health Equity and Engagement team mobilized to get accurate information to community partners and residents including:

- Hosting a planning webinar to get feedback and input from community leaders on how best to get information out to residents and others
- Hosting a Town Hall Webex session that addresses the do’s, don’ts and myths surrounding COVID-19
- Generating a resource guide in partnership with West Side United to assist community partners and residents
- Sending FAQs in several languages and an informational video by the senior vice president of Community Health Equity on COVID-19
Clinical Operations at Rush University Medical Center

Facility Infrastructure: To accommodate for an influx of PUIs arriving at hospitals doorsteps, Rush University Medical Center has modified their unit infrastructure to safely triage and treat patients by flipping rooms to negative pressure rooms.

Negative Pressure rooms are isolation techniques used in hospitals and medical centers to prevent cross-contamination. Negative pressure is generated by a controlled ventilation system that removes more exhaust air from the room than more entry air is allowed while allowing clean air to come in. During a time of crisis, hospitals and health systems use these rooms to place highly contagious patients away from other patients and staff to appropriately treat conditions.

Rush Negative Pressure Rooms: The Rush Tower has 40 negative pressure rooms, among the highest in Chicago. These assets are critical because it means that when the door to the room opens air from the hall moves into the room, not from the room to the hall. This helps contain any infectious particles in the air in that room.

- The Rush Emergency Department is divided into three 20-bed units — each of which can be isolated with separate air handling. Every ED bed is in its own room with a door, not a curtain that further isolates each and every patient.
- The Emergency Department has an entry bay for ambulances that is covered and can be arrayed to further isolate infected patients who are entering for evaluation and treatment.
- The Emergency Department can be rapidly converted to enable high-volume screening. Phase 1 of the preparedness plan has already been implemented, with rapid triage and screening of potential coronavirus patients in ambulance bays. It can expand to increase throughput to see an additional 100 patients a day (in addition to their usual volume).
- Rush is ready to initiate the next phase of the plan — in two hours, we can convert a wing of the hospital into a negative pressure ward to accommodate more patients. This will increase our isolation room capacity by 32, bringing total capacity to 72 beds, which can all be used for COVID-19 patient treatment. They anticipate needing this for patient care in the next week.

Facility Preparedness: With the expectant surge in visits, patients’ admissions, and COVID-19 positive cases, hospitals and health systems around the nation have tweaked their visitation policies and developed their security protocol to safely manage abnormal visitation volumes within their space. This is no different than RUSH’s response to their facility preparedness. Rush has implemented a series of guidelines and criteria to help keep their patients, staff, faculty and the community safe.

Building Accessibility

Visitation Policies: Effective immediately and until further notice. Rush does not allow visitors in most of their inpatient and outpatient areas. In addition many access points throughout the hospital will be only accessible to selected Rush personnel. Exceptions have been made for certain patient groups, including children. The following changes have been implemented across the Medical Center.

Rush University Medical Center Visitor Policies:
- No one under the age of 12 may visit.
- No visitors will be allowed in adult inpatient units. Please note these exceptions:
  - Critically ill/end of life patients: the number of visitors will be managed by the care team.
  - Hospice – per Journey Care leadership discretion.
- Our pediatric patient population, including general pediatrics, PICU and NICU (patients under the age of 18), may have one visitor. Patients in the Mother Baby Unit may have one partner. While in Labor and Delivery, patients can have one partner and one doula, if needed.
- Adult patients undergoing surgery may have one visitor for the duration of the procedure.
- All visitors will be screened at the information desk nearest to their point of entry to the medical center. Visitors who have flu-like symptoms should not visit patients.

Outpatient Visitor Policy:
- Patients in our outpatient clinics may have one support person.
- Patients having outpatient’s surgery may have one support person.
- Patients at the Medical Center for the outpatient laboratory or radiology therapy may have one support person.
- Emergency Department patients may have one support person.
- No one under the age of 12 will be allowed as a support person.
- All visitors will be screened at the information desk nearest to their point of entry to the medical center. Visitors who have flu-like symptoms should not visit patients.

Screening

Overall Recap of Efforts

It is important to screen and slow the spread of those who may carry the virus. This includes our patients, employees, staff, visitors and vendors. Rush University Medical Center began screening, based on CDC guidelines, for the travel to level 2/3 countries. As, this continues to evolve with the recent restriction on European countries, Rush has decided to go to screening all Influenza Like Illnesses (ILI) and mask this population and restrict from the campus.
Rush has developed a testing algorithm to rule out influenza and other respiratory viruses before outflowing negative results to the limited supply COVID test. Rush labs were able to quickly develop an in-house test with a six-hour turnaround. We also added an employee walk- and drive-by screening for symptomatic employees with test results in six hours.

Overall PUI Workflow

Call Center Processes have been set up for an external line (888) xxx-xxxx, staffed 24/7, which serves as a centralized hotline for patients to call. The call staff will triage based on screening criteria for exposure and symptoms and direct PUIs to one of the following options:

1. Video visit
2. RN triage (staffed 24/7)
   a. Employees go to drive through testing
   b. Home visit testing
   c. Ambulatory COVID Clinic
   d. Home quarantine
   e. Emergency Department

Virtual Care

Rush fully leveraged and expanded its existing capability to conduct e-visits and on-demand video visits to drive patients to virtual care options. These virtual visits are unscheduled appointments handled by a pool of providers. The majority of visits handled during this time were people concerned about coronavirus and who reported having some level of symptoms and exposure. However, we also continued to treat other concerns like cold, flu, cough, diarrhea, etc.

As community spread took hold, we began offering video as another option for patients with scheduled visits. A bulk training plan was deployed to get as many available providers trained and equipped and specific patients were then solicited about having their visit performed remotely, if appropriate. This was done across specialties at the provider’s discretion, with an emphasis on immune-compromised patients.

On-Demand Video Visit Process:

**Step 1:**
The patient begins with a self-evaluation on the Rush consumer facing webpage. This algorithm follows current CDC guidelines and continues to change to fit these guidelines.

**Step 2:**
In a pre-visit questionnaire, patients are asked about exposure and symptoms. If they are high or moderate risk, they initiate a free video visit. If they are not high or moderate risk, patients are referred to other virtual care options and resources. **OF NOTE:** Employees referred to use the module are passed through to a provider for screening so we can determine if they are safe for work or should be in self-quarantine until cleared by Employee Health.

**Step 3:**
The provider connects with the patient and has a consultation, similar to any other virtual visit or in-person patient visit. A built-in health record smart set on the side navigator guides the questions to ensure consistency of care. When the provider is done, issue a “No Charge” or 500 Level of Service for patients who use the “Concern for Novel Coronavirus” module, even if you end up providing care and medications. For patients referred to our standard paid video visits (eg. Cough, Influenza, Sinusitis) then the Level of Service is “ond,” even if they ask about Coronavirus. During the call, the provider verifies the patient’s symptoms.

Verify the patient’s symptoms
a. Fever?

Verify the patient’s exposure history
a. Did the patient travel recently?

Close contact entails within 6 feet distance for 10 minutes or more. Depending on responses, the provider **assesses if the patient is a PUI:**

a. If yes, refer to in-person testing or self-quarantine and supportive care at home.
b. If no, treat other symptoms and refer to self-quarantine and supportive care at home.
Patient, Employee and Visitor Screening Algorithm
Assess Symptoms and Exposure to determine moderate or high risk

Clinical Features (Symptoms)
- Fever or signs/symptoms of lower respiratory illness (e.g., cough or shortness of breath)
- Fever and signs/symptoms of a lower respiratory illness (e.g., cough or shortness of breath) requiring hospitalization
- Fever with severe acute lower respiratory illness (e.g., pneumonia, ARDS) requiring hospitalization and without alternative explanatory diagnosis (e.g., influenza)

Epidemiologic Risk (Exposure)
- Any person, including health care workers, who has had close contact with a laboratory-confirmed COVID-19 patient within 14 days of symptom onset.
  - A history of travel from high-risk areas
  - No source of exposure has been identified

No.
- Young healthy patients with mild symptoms may self-quarantine until symptoms resolve.
- Patients over 60 or special population patients (immunocompromised, heart disease) should be tested
- Patients with severe symptoms should be tested

Yes.
- Use the COVID-19 Smartset. Use the "Request for COVID Testing" order and select COVID clinic.
- Ask patient to self-isolate and stay at home until further instructions are provided
- The patient will receive a call back from the access center with an appointment time for testing in the COVID-19 clinic. This could take a day or two
- Patient can self-report exposure to CDPH or IDPH in meantime.
- If the patient appears ill or dyspneic?
  - If more immediate in-person care is needed, instruct the patient to go to the Emergency Department (ED). For patients referred to the Rush ED, call the ED charge nurse at 312-947-0170 or 7-0250. ED providers, please also put in a great note that a patient may be arriving
  - Place a "Request for COVID Testing" order and select "ED COVID"

Can do URI visit, or a S30 e-visit or see your provider/at-home supportive care. Counsel to stay home until fever improved. Still consider COVID-19 and assess symptoms and follow algorithm above.
- Consider influenza and Tamiflu if within window:
- Employees – If employee reports Cough PLUS fever/SOB/myalgia they should be tested and quarantined
  - If just a single symptom (e.g. Cough) contact Employee Health. Probable return to work with mask after symptoms resolve with ECHS blessing.

Self-monitor (measure temperature twice a day and look for symptoms of respiratory illness) for 14 days since exposure.
- Employees – self-isolate, ECHS should be notified (312.942.5878) for further steps. They should NOT show up to Employee Health.
- Patients – continue social isolation and monitor for symptoms. Contact their own ECHS for guidelines.
  - If new fever or symptoms occur, patient can re-engage with Rush through video visit, call their physician, or call CDPH/IDPH public health coronavirus hotlines.

No high risk factors or symptoms; can reassure and exit patient.
- Employees – do not need further clearance to return to work.

Example:
Patient has respiratory symptoms but can’t recall any exposure

Example:
Patient traveled from Italy but has no symptoms

Example:
Patient has respiratory symptoms and came from a high-risk region

Example:
Patient has no symptoms and no travel (e.g., worried well).
COVID-19 Clinic

The COVID-19 Clinic was set up to create an alternative to seeing patients in the Emergency Department. The RUMC Infectious Disease Clinic was converted into a COVID-19 Clinic and all non-COVID-19 infectious disease traffic was shifted to an alternate location. This strategic location allowed for rapid, drive-in COVID-19 screening and testing as well as controlled entry for high-risk patients under investigation (PUIs), including separate curb-side patient drop-off and direct escort into the clinic without entry into the main hospital or other ambulatory spaces. The COVID Clinic consisted of three (3) negative pressure rooms and three (3) regular rooms staffed with Advanced Practice Providers (APPs).

Patients were scheduled in the COVID Clinic following a virtual visit with a provider who then referred the patient to the clinic for testing. Additionally, patients were referred to the COVID Clinic via request from IDPH. The clinic offered reserved parking for patients on the street near the entry. Five minutes prior to arrival, patients were instructed to call the clinic and remain in their vehicle until a nurse came outside to meet them. If they had one available, patients were instructed to wear a mask to the appointment. In the event they did not have a mask, the nurse brought the mask to the patient at the vehicle and provided instructions for how to put it on. The nurse then escorted the patient into the clinic for the swab. The swab only took about five minutes. Patients were instructed not to touch anything and remain vertical to minimize potential spread while the swab was completed in the clinic. Following testing, patients were sent home to self-quarantine until test results became available.

Mobile Swab Swat Team

In addition to the COVID-19 Clinic, a Mobile Swab Swat Team consisting of nurses trained in RPP and COVID testing was created for rapid dispatch to ambulatory clinics that did not have Point of Care Flu and COVID testing available. In the event that a patient positive for Influenza Like Illness (ILI) symptoms and travel to level 2 or 3 OR contact with a COVID positive patient presented at a RUSH ambulatory clinic, the Mobile Swab Swat Team was paged. Upon arrival, the Mobile Swab Swat Team tested the patient for RPP and Reflex COVID and sent the patient home to self-quarantine. The Swat Team would then clean the room and call the lab for a runner to pick up the specimen. Infectious Disease / Infection Prevention then follows up with the patient following receipt of test results.

When POC and COVID testing is available within a RUSH ambulatory clinic, the RPP and Reflex COVID testing is performed by the nurse in the clinic and the Mobile Swab Swat Team is not contacted. The same guidelines for patient self-quarantine, room cleaning, and patient follow up are used.
Emergency Department

Ambulance Diversion: To reduce the spread of infection of COVID-19 coming in through the Emergency Departments, Rush University Medical Center has closed its ambulance bay for all incoming EMS ambulances. They will all be redirected to our circle driveway. While EMS is in route to the front of the Emergency Department, the initial triage will begin by ruling out whether the patient is an ILI Critical/Non-Critical Patient. That’s when the two separate workflows for ILI Critical and Non-Critical begin. (See ED Surge Plan: Greet and Discharge Process below):

- EMS Ambulance Workflow (ILI Critical Patient): EMS will take patients directly to Rush’s negative pressure rooms to rule out COVID-19.
- EMS Ambulance Workflow (ILI Non-Critical Patient): If the patient is able to sit in the chair in the initial staging area, EMS will place the patient in the chair. If a patient is not able to sit in the chair, the EMS crew will be directed to one of their emergency department negative pressure rooms.

ED Surge Plan: Greet and Discharge Process

Conversion to Negative Pressure Rooms: To increase Rush’s capacity to triage incoming patients through Rush University’s Medical Center Emergency Department, Rush converted one of their Pods into a negative pressure room to treat critical ILI critical patients.

Tent Triage: Rush University Medical Center’s Emergency Department has been rapidly converted to enable high-volume screening. Phase I of the preparedness plan has already been implemented by building a tent triage right within the ambulance bay. This rapid triage and screening of potential coronavirus patients in ambulance bays has allowed them to increase throughput to see an additional 100 patients a day (in addition to their usual volume).
Inpatient: If the Emergency Department has all negative pressure rooms occupied, inpatient operations will be activated to triage patients into their repurposed units. Inpatient Operations at Rush University Medical Center has repurposed some of their patient wings to triage and treat PUIs and COVID-19 positive patients. Pictured below you will see how inpatient operations expanded units and extended hours of operation in three of their units. As more admissions come into play, Rush has the ability to repurpose more units into holding areas for patients.

- Opened up 4 more observation beds in their CDU Unit
- Repurposed rehab unit to a general medical wing with 22 beds
- Repurposed their 32 bed orthopedics unit. Will convert 16 patient rooms into negative pressure space to be used to group patients requiring airborne and droplet precautions, including those being ruled out for COVID-19.
- Orthopedic surgical patients will continue to use the 16 remaining rooms with overflow from other units as needed

Patient Discharge: Discharging previously infected patients is an integral part of the patient triage process. Rush is responsible to contain community spread and reduce patient readmissions. Rush University Medical Center’s COVID-19 discharge process incorporates patient and family education to ensure appropriate steps are taken to transport the patient safely back home. Some features of the Patient Discharge Education Process include offering:

- Providing an Epic Quick Disclosure Resource Sheet
- Virtual Education and Training: Conducting education via phone of video conference with a nurse educator
- Sending discharge instructions, pictures, videos or diagrams to patient
- Consult Home Health or outpatient therapy for next day visit
- Educating families in the “Discharge Lounge” where education can occur at the bedside with a single family member
- Assigning Mytonomy education videos to patients and families in Rush MyChart

Patient Discharge Education Workflow:
Surge Planning

Leveling Criteria: RUSH has developed three capacity levels that triggers different hospital responses. The levels are subdivided by entity (Emergency Department, Inpatient, Outpatient) with the levels having different responses for administrators, practitioners, and faculty on what to do when they see an influx in COVID-19 PUIs and confirmed cases. RUSH’s detailed surge plans can be found in the table below:

<table>
<thead>
<tr>
<th>Leveling Criteria</th>
<th>Level 1: First PUI</th>
<th>Level 2: &gt;3 Concurrent PUIs</th>
<th>Level 3: Community Spread</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Department</td>
<td>Use existing 3 negative pressure rooms in the ED</td>
<td>• Activate Forward Triage - new location in ambulatory bay for ILI patients</td>
<td>Community Spread (Cases are so widespread that all patients are tested. Screening is no longer effective)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Flip Pod c (21 bed capacity)</td>
<td></td>
</tr>
<tr>
<td>Inpatient</td>
<td>Standard operations proceed</td>
<td>• Enable additional med/surg capacity by activating a clinical decision unit Rehab unit.</td>
<td>Repurpose more units</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Negative pressure Cohort PUIs on dedicated and Respiratory Units</td>
<td></td>
</tr>
<tr>
<td>Ambulatory</td>
<td>Send patients to COVID Clinic</td>
<td>• Mobile Swab Swat Team engaged</td>
<td>Conversion to all virtual appointments</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• POC Testing</td>
<td>• Consolidation of ambulatory sites</td>
</tr>
<tr>
<td>University</td>
<td>Travel Screening for students/faculty</td>
<td>• Flip classrooms to virtual</td>
<td>Close Campus Facilities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Virtual match day and commencement</td>
<td></td>
</tr>
</tbody>
</table>
Supply Change Management Overview

A key component of readiness is ensuring Rush has the appropriate supply levels. The Supply Chain Management Team is tracking Rush’s inventory levels, internal utilization and the supplier’s allocation rate for all medical supplies, especially Personal Protective Equipment (PPE). They are working very closely with their primary distributors to ensure they have healthy supply levels to support Rush’s increased demand. The Supply Chain Team is also working with certain manufacturers, directly, to understand the allotment amount that is allocated for Rush, along with estimated times of delivery.

Supply Chain Inventory Tracking (PPE Supplies)

Internal Operations

Supply Chain Management has revised operational workflows to ensure appropriate par levels are adjusted to accommodate the increase in demand. The team has built PPE go-packs that consist of N95 masks, face shields, isolation gowns and sanitation wipes to support the clinical team who’s responsible for treating PUIs. Supply Chain has also adjusted their work schedule for regular rounding and replenishment focusing more on the Emergency Department and units with cohorted PUIs. They have built and enhanced supply rooms for new units that are set up to support the increased demand of COVID-19 patients.

Surge Planning: Looking at Reducing Utilization

Supply Chain has worked closely with the clinical team and Infection Control to figure out ways to reduce the utilization of PPE supplies. One approach is to limit the number of people going into the rooms during rounds. They also want to make sure all PPE items are placed in its appropriate stocking location with only one item taken at a time to drive efficiency. All PPE supplies that are used for replenishment are locked and secured in central supply with limited access and 24/7 coverage. Supply Chain has also restricted all internal purchase orders for PPE supplies so that the allocation of supplies are managed via central supply chain based on need and prioritization.
Employee Safety Overview

Working from home

While Rush did not mandate that employees work from home, managers were encouraged to consider arrangements for those employees identified through an institution-wide survey as qualified and equipped to do so. Decisions were left to the manager’s discretion and guided by Rush’s existing Flexible Work Arrangement policy, in addition to patient care needs, operational needs, job requirements, prior individual performance, and equity within the department where the request arises.

Employees working from home were required to sign an attestation agreement. This increased use of work from home flexibility was regularly evaluated for appropriateness and based on leader input.

Rush’s Information Services Department compiled a comprehensive document covering how to effectively set up and operate a remote work station to support those employees who had either never worked remotely or had questions.

Let’s Work

A step-by-step guide for working from home for Rush

Let’s get started.

Welcome to working from home at Rush. Note if you a Rush issued laptop you are allowed to take that home. If you are on a desktop you will need to use your own personal device.

You will need:

1. Laptop
2. Internet connection
3. Desktop phone
4. Internet connection

If you need any assistance, please contact:

HELP DESK
2-HELP
(312) 942-HELP
help@rush.edu

Travel restrictions

As precautions to prevent the potential spread of COVID-19 continued to escalate, employees were asked to reschedule or cancel travel plans to heed advisories issued by the Centers for Disease Control. During the first week of the outbreak, Rush suspended all international and domestic business travel, including attendance at any local professional conferences in addition to discouraging personal travel.

At the same time and prior to the confirmation of community spread, Rush employees, faculty, providers, volunteers and students who had traveled outside of the state of Illinois (or current state of residence) were asked to complete a mandatory survey prior to returning to work. Traveling outside of the state was defined as either flying or driving across state lines.

Additionally, employees, faculty, providers, volunteers and students returning from a Level 2 or Level 3 country (as defined by the CDC) were prohibited from returning to campus and placed on a furlough for a minimum of a 14-day period from the time of re-entry into the United States by Employee and Corporate Health Services.
Large Group gatherings

In an effort to keep the community as safe as possible, Rush also requested that all on-campus, large group gatherings of 50 people or more, particularly those involving visitors and all non-essential business, be canceled. Essential core business meetings like grand rounds continued but were evaluated for virtual options and moved online whenever possible.

Staff Exposure

As confusion and anxiety increased, it was important to provide consistent and clear information for employees about their risk of exposure. The COVID Risk Table below was developed and distributed to health care personnel to meet this need.

<table>
<thead>
<tr>
<th>Epidemiologic risk factors</th>
<th>Exposure category</th>
<th>Recommended Monitoring for COVID-19 (until 14 days after last potential exposure)</th>
<th>Work Restrictions for Asymptomatic HCP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prolonged close contact with a COVID-19 patient who was wearing a face mask (i.e., source control)</td>
<td>HCP PPE: None</td>
<td>Medium</td>
<td>Active</td>
</tr>
<tr>
<td>HCP PPE: Not wearing a face mask or respirator</td>
<td>Medium</td>
<td>Active</td>
<td>May work with a mask and be monitored for signs and symptoms</td>
</tr>
<tr>
<td>HCP PPE: Not wearing eye protection</td>
<td>Low</td>
<td>Self with delegated supervision</td>
<td>None</td>
</tr>
<tr>
<td>HCP PPE: Not wearing gown or gloves</td>
<td>Low</td>
<td>Self with delegated supervision</td>
<td>None</td>
</tr>
<tr>
<td>HCP PPE: Wearing all recommended PPE (except wearing a face mask instead of a respirator)</td>
<td>Low</td>
<td>Self with delegated supervision</td>
<td>None</td>
</tr>
<tr>
<td>Prolonged close contact with a COVID-19 patient who was not wearing a face mask (i.e., source control)</td>
<td>HCP PPE: None</td>
<td>High</td>
<td>Active</td>
</tr>
<tr>
<td>HCP PPE: Not wearing face mask or respirator</td>
<td>High</td>
<td>Active</td>
<td>Exclude from work for 14 days after last exposure</td>
</tr>
<tr>
<td>HCP PPE: Not wearing eye protection</td>
<td>Medium</td>
<td>Active</td>
<td>May work with a mask and be monitored for signs and symptoms</td>
</tr>
<tr>
<td>HCP PPE: Not wearing gown or gloves</td>
<td>Low</td>
<td>Self with delegated supervision</td>
<td>None</td>
</tr>
<tr>
<td>HCP PPE: Wearing all recommended PPE (except wearing a face mask instead of a respirator)</td>
<td>Low</td>
<td>Self with delegated supervision</td>
<td>None</td>
</tr>
</tbody>
</table>

The risk category for these rows would be elevated by one level if health care personnel had extensive body contact with the patients (e.g., rolling the patient); or if they performed or were present for a procedure likely to generate higher concentrations of respiratory secretions or aerosols (e.g., cardiopulmonary resuscitation, intubation, extubation, bronchoscopy, nebulizer therapy, sputum induction). For example, personnel wearing a gown, gloves, eye protection, and a face mask (instead of a respirator) during an aerosol-generating procedure would be considered to have a medium-risk exposure.

Team Wellness

As more information regarding COVID-19 became available, employees expressed a wide range of thoughts, feelings and reactions. With a sharply increased sense of anxiety, it was important to pay close attention to employees’ well-being and address questions and concerns as soon as they arose. To monitor and maintain that connection, a number of tools were put in place, including:

- Distribution of a Rush Wellness newsletter immediately offering reassurance and resources for those feeling anxious
- Compilation of a wellness guide with resources, contact numbers and information sent via email, linked in the Wellness Newsletter and distributed in hard copy
- Chief Wellness Officer emphasized importance of wellness checks and daily contact with employees to assess situation in real time
- Impromptu town halls conducted virtually to address a heightened sense of anxiety evident by information collected on rounds, submitted questions and/or absenteeism

Paul Casey, MD, acting chief medical officer, and Bryant Adibe, MD, chief wellness officer, share how to stay safe and maintain your well-being during this stressful time.

Paul Casey, MD, acting chief medical officer, and Bryant Adibe, MD, chief wellness officer, share how to stay safe and maintain your well-being during this stressful time.
Day Care

When the Governor of Illinois announced that all public schools would be closed for two weeks, Rush sent an institution-wide survey to gather needs and interest in day care options via multiple communications channels. As a result, Rush organized a pop-up child day camp for employees' children aged 5 – 12, at no cost to the employee. Using an existing school space on campus, the camp was established to support employees' childcare needs from the hours of 7 am to 5 pm, Monday through Friday.
University Overview

Rush University is a health sciences university comprised of four colleges: Rush Medical College, the College of Nursing, the College of Health Sciences and the Graduate College. With almost 2,700 students enrolled in the spring 2020 semester, we had 325 active classes, clinical rotations and labs in progress when the coronavirus pandemic hit Illinois.

University Command Center

On Friday, March 6, 2020, Rush University leaders formed a University Command Center (UCC) to respond quickly and specifically to the needs and concerns of students, faculty and staff while working in close collaboration with RUSH’s HICS. The UCC was comprised of the President, Provost, Vice Provosts, Deans, and leaders from IT, the online teaching center, student affairs, communications, legal, marketing, finance, facilities, environmental services, security and other essential units. The primary goal of the UCC was to develop a comprehensive plan to assure continuation of course delivery and uncompromised quality of education, as well as critical clinical and basic research obligations during this crisis, while protecting the safety and well-being of the faculty, staff and students. University leadership was fully engaged and worked as a team to solve problems, provide change management, quell concerns and provide transparency related to the evolving situation.

Online Instruction (Assessment for readiness and flipping the switch)

On Tuesday, March 10, 2020, the UCC made the decision to migrate all in-person classes to a remote platform beginning Friday, March 13, 2020, and extending approximately 10 weeks when the situation would be re-evaluated based on community spread of the virus and the safety of students to return to campus. Several courses were already being taught online, and these continued unaltered.

Faculty readiness for migrating onsite courses to a synchronous or asynchronous platform was assessed by a “teaching remotely survey” to determine how many courses were: ready to teach remotely (green), could be taught remotely but needed more time/support to transition (yellow), or could not be taught remotely because they were clinical rotations or labs (red). Information Services (IS) initiated a support command center in the university, where faculty could work with IS support one-on-one to transition curriculum to remote instruction.

The center was designed to remain available for the duration of remote instruction. The university created a resource center within Blackboard and published it on the university webpage to assist faculty with migration of their courses. A comprehensive guide for online learning was also provided to students. The online curriculum was designed to mirror face-to-face class curriculum to ensure continuation of course delivery and uncompromised quality of education. Where possible, synchronous teaching was encouraged to provide instruction via WebEx or Zoom to be delivered in the same timeframes as the onsite courses. Student services were all made available remotely, including mentoring, IS support, clinical skills and simulation center activities, student affairs and library services (which are always accessible remotely).
## COVID-19 Response Timeline

<table>
<thead>
<tr>
<th>DATE</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 26, 2020</td>
<td>Externally facing coronavirus website live</td>
</tr>
<tr>
<td>March 2, 2020</td>
<td>Hospital Incident Command System stood up</td>
</tr>
<tr>
<td></td>
<td>COVID-19 hotline established</td>
</tr>
<tr>
<td></td>
<td>“Ask a Question” web page live</td>
</tr>
<tr>
<td></td>
<td>Rush intranet coronavirus web page live</td>
</tr>
<tr>
<td>March 4, 2020</td>
<td>All-staff town hall</td>
</tr>
<tr>
<td>March 5, 2020</td>
<td>Business travel suspended</td>
</tr>
<tr>
<td></td>
<td>Employee travel survey launched</td>
</tr>
<tr>
<td>March 6, 2020</td>
<td>HR Q&amp;A distributed with updated work from home, furlough and PTO sharing policies</td>
</tr>
<tr>
<td>March 7, 2020</td>
<td>Travel survey updated to reflect out-of-state travel</td>
</tr>
<tr>
<td>March 9, 2020</td>
<td>Group gatherings restricted to less than 50 people; meetings moved online/virtual</td>
</tr>
<tr>
<td></td>
<td>Executive leadership preparedness meeting</td>
</tr>
<tr>
<td></td>
<td>Internal and external contact numbers distributed via flyers and posters in Medical Center</td>
</tr>
<tr>
<td></td>
<td>Entrances and exits closed and pedestrian traffic streamlined into specific entry points</td>
</tr>
<tr>
<td></td>
<td>All-staff employee “Daily Digest” email implemented</td>
</tr>
<tr>
<td>March 10, 2020</td>
<td>“Wash your hands” sign displayed on Tower building</td>
</tr>
<tr>
<td>March 11, 2020</td>
<td>Deadline for emergency contact system signup</td>
</tr>
<tr>
<td></td>
<td>Work from home instructional materials distributed</td>
</tr>
<tr>
<td></td>
<td>Forward triage erected in ambulance bay</td>
</tr>
<tr>
<td>March 12, 2020</td>
<td>All-staff town hall/Q&amp;A (virtual)</td>
</tr>
<tr>
<td></td>
<td>Work from home option encouraged</td>
</tr>
<tr>
<td></td>
<td>Surge mode engaged</td>
</tr>
<tr>
<td>March 13, 2020</td>
<td>CEO letter sent to government officials</td>
</tr>
<tr>
<td></td>
<td>No visitors policy activated</td>
</tr>
<tr>
<td>March 14, 2020</td>
<td>HR Q&amp;A updated and redistributed</td>
</tr>
<tr>
<td>March 15, 2020</td>
<td>Deadline for updated emergency phone tree</td>
</tr>
<tr>
<td>March 16, 2020</td>
<td>Rush Fitness Center closes</td>
</tr>
<tr>
<td></td>
<td>Rush University student clinical rotations canceled</td>
</tr>
<tr>
<td></td>
<td>In-house COVID testing activated</td>
</tr>
<tr>
<td></td>
<td>Employee drive-in testing activated</td>
</tr>
<tr>
<td></td>
<td>Chicago public schools closed</td>
</tr>
<tr>
<td></td>
<td>Rush pop-up onsite day camp open</td>
</tr>
<tr>
<td>March 17, 2020</td>
<td>All-staff town hall/Q&amp;A (virtual)</td>
</tr>
<tr>
<td>March 18, 2020</td>
<td>Board of Trustees-specific Webex</td>
</tr>
<tr>
<td></td>
<td>Elective surgeries postponed</td>
</tr>
</tbody>
</table>