

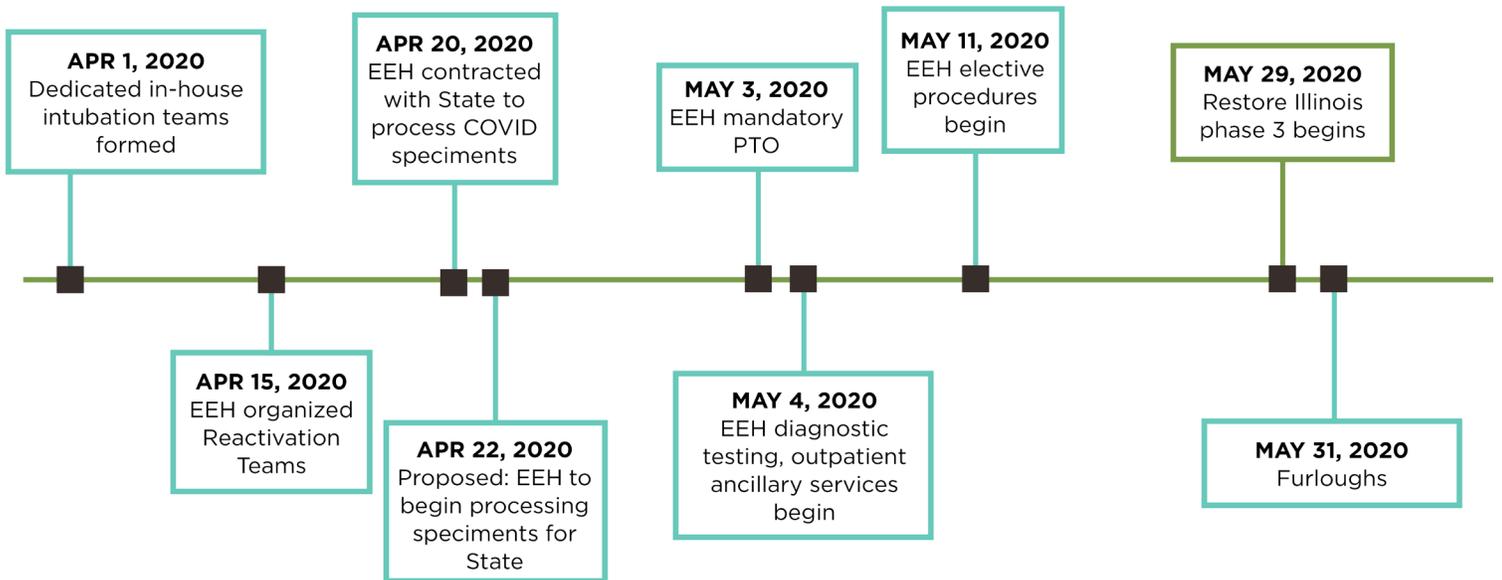


SPECIAL BOARD REPORT PART 2

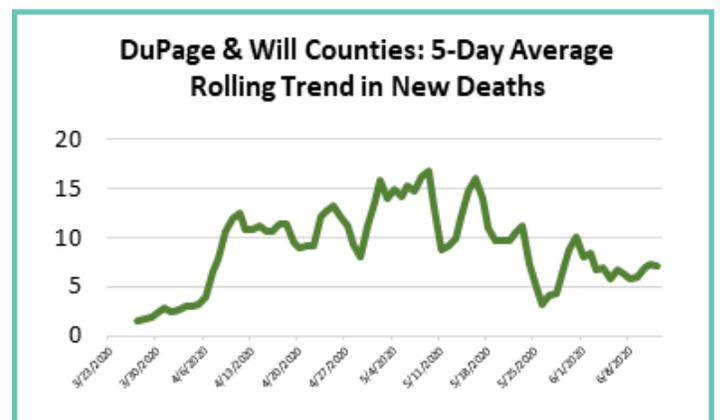
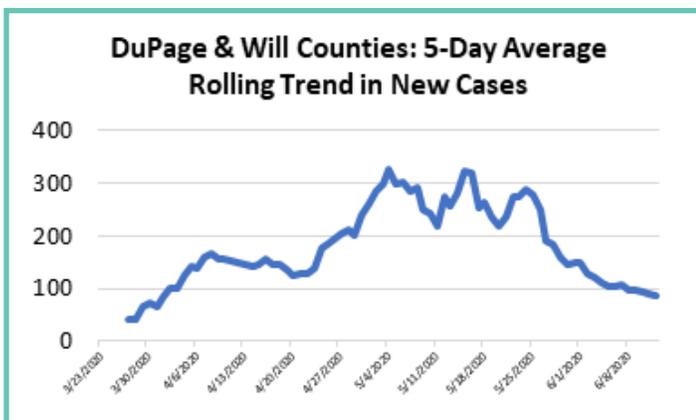
JUNE 2020

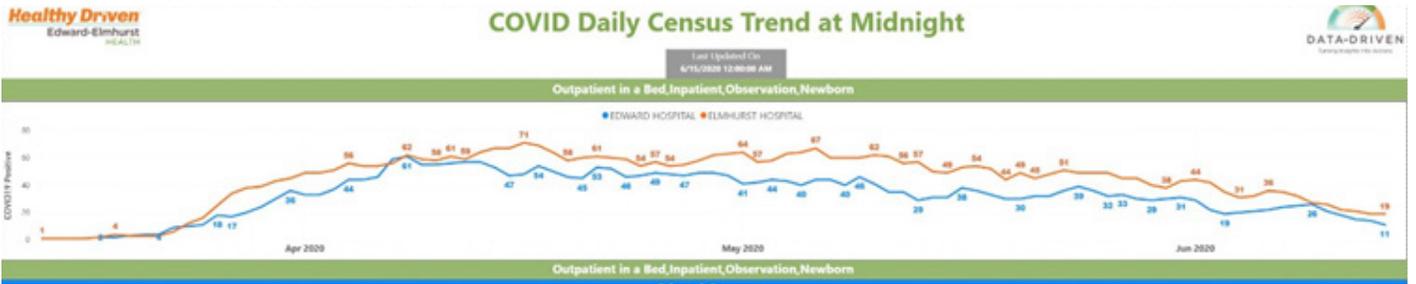
Executive Summary

The COVID-19 pandemic has presented Edward-Elmhurst Health with significant challenges since it began having an impact in March of 2020. This report gives an overview of the organization's response since our April report, with the timeline below summarizing activity that has occurred since that time.

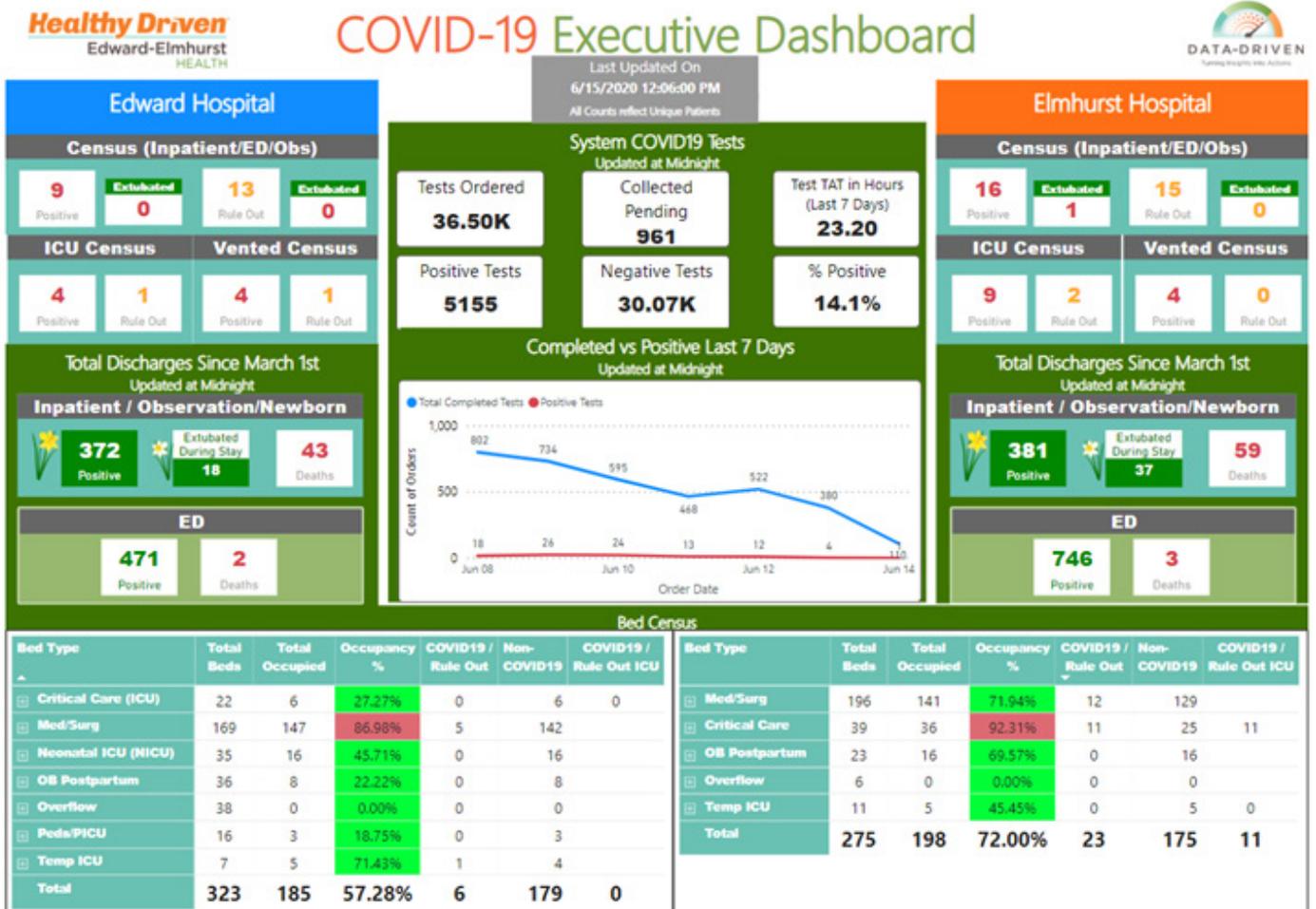


The COVID-19 pandemic peaked in mid-May throughout Edward-Elmhurst's service area, consistent with the metropolitan Chicago region. After a long plateau, cases finally showed signs of decline later that month.





As of June 15, 2020, the number of COVID-19 inpatients (confirmed and rule-outs) was down to 22 at Edward and 31 at Elmhurst—significantly less than the System-wide peak of over 150. By this date, EEH had completed almost 37,000 COVID-19 tests, had over 750 inpatient discharges across 7,500 inpatient days (one-third of them in the ICU), treated 1,200 Emergency Department patients and experienced 102 deaths. Of 106 COVID-19 patients placed on respirators, 55 were successfully extubated during their stay.



Regrettably, the COVID-19 pandemic is not over. Even as we pursue our own reactivation plan and bring back patients who deferred care, we are preparing for future surges. This report provides an update on what has occurred since the April report, while providing insight into some of the remarkable stories that have occurred along the way.



Clinical Advances

Throughout the early weeks of the pandemic, we were confronted with the fact that there was little research or consensus around COVID-19 treatment protocols. Without the benefit of clear evidenced-based practice, EEH clinicians dedicated time to research the latest treatment findings and network with national and international experts to determine best practice. Led by a hospitalists, infectious disease and pulmonary/critical care specialists, anesthesiologists, nurses, pharmacists and respiratory therapists, a Clinical Decision Team was formed, meeting daily to develop and refine protocols based on the latest research and outcomes. As a result, many effective treatment protocols rapidly evolved across the System, allowing for greater consistency in the care of these patients. Promising clinical advancements included:

- **Proning.** Initially felt to be preserved for ventilated patients, EEH was an early adopter of proning protocols, where non-ventilated COVID patients were placed in the prone position to improve oxygenation. This led to early oxygen stabilization and prevention of intubation, resulting in relatively low ventilator utilization and positive outcomes.
- **Monitoring of Inflammatory Markers.** Protocols for monitoring inflammatory markers were developed to determine the best time to administer IL-6 inhibition to prevent the cytokine surge that caused many COVID-19 patients to rapidly deteriorate. While initially preserved for the sickest patients, close monitoring of marker data enabled the EEH clinical team to intervene earlier. Early evidence indicates that this practice saved lives.
- **Alternatives to Mechanical Ventilation.** As experience developed, it became clear that patients needed oxygen support and not ventilation. This allowed the clinical team to pivot from ventilator dependency toward employing the use of high flow oxygen and hooded ventilation as alternatives to intubation and mechanical ventilation.
- **ECMO.** Extracorporeal membrane oxygenation (ECMO) protocols were established by Dr. Bryan Foy to treat the sickest of COVID-19 patients. ECMO is an extremely complex and rarely used procedure that allows oxygen to be pumped through the body through an external source, temporarily taking over the work of the heart and lungs so they can heal. Four gravely ill COVID-19 patients were put on ECMO, with two surviving.
- **Anticoagulation.** It became clinically evident that COVID-19 was associated with pro-coagulation tendencies, which led to the early monitoring of coagulation biomarkers and establishment of triggers for higher than normal doses of anticoagulation. This practice improved oxygenation and survival.
- **Bedside Procedures.** Bedside percutaneous endoscopic gastrostomy (PEG) and tracheotomies, typically done in the operating room, were safely and effectively performed at the bedside to ensure isolation and enhance speed to treatment.
- **Remdesivir.** The pharmacy team was able to procure early supplies of remdesivir, an anti-viral drug used to treat COVID-19 and develop protocols for judicious use.

Internal and External Collaboration to Promote Safety and Outcomes

One of the more satisfying aspects of EEH's COVID-19 response was the collaboration that occurred, both internally and externally. Through the labor pool, many employees were deployed to newly assigned roles that were very different from their original jobs, allowing the organization to fill critical roles. Clinical teams worked together in new ways to enhance patient care and there was extensive external networking to ensure there was continual learning to support the best possible outcomes. A few highlights are provided below.

- **Intubation Teams.** Early on, high degrees of transmission to healthcare workers was tied to the act of intubation. The anesthesia team was able to provide a valuable resource in developing dedicated intubation teams. Using their expertise, the process of intubation became more streamlined with lower risk of virus aerosolization. Supported with extra PPE, including Powered Air-Purifying Respirators (PAPRs), all staff remained safe and no viral transmission occurred.
- **Dedicated Hospitalist/Intensivist Teams.** Rounding on ICU and COVID units was limited to promote staff safety and preserve PPE. Hospitalists and intensivists instead developed daily COVID teams to prevent potential cross contamination throughout the hospital.
- **New Nursing Models.** Elmhurst Hospital developed a care team model utilizing Certified Registered Nurse Anesthetists (CRNAs) and Advanced Nurse Clinicians (APCs) to help with the COVID population in the ICU and COVID floors. This resulted in significant improvement in outcomes for both ventilated and non-ventilated patients.
- **Multi-Institutional Collaboration.** Drs. Samir Undevia and Alex Hantel led an initiative to establish the Chicago Cancer Center COVID-19 Coalition ("C-5") –a collaborative between Chicago area cancer programs to identify best practices in treating cancer patients during

the COVID-19 pandemic. The group, which included representatives from Rush, University of Chicago, Loyola, NorthShore, University of Illinois and Advocate Aurora Health, met by teleconference every Sunday morning beginning on March 22, less than 24 hours after the State of Illinois stay at home order went into effect. Capitalizing on the learnings from this group, EEH adopted numerous enhancements to patient care, including SARS-CoV-2 testing workflows, central catheter self-disconnect protocols, coagulation prophylaxis and management protocols, and telehealth protocols.

- **Convalescent Plasma Initiative.** EEH collaborated with DuPage Medical Group (DMG) to to accelerate plasma donations to support experimental but promising convalescent plasma transfusions.





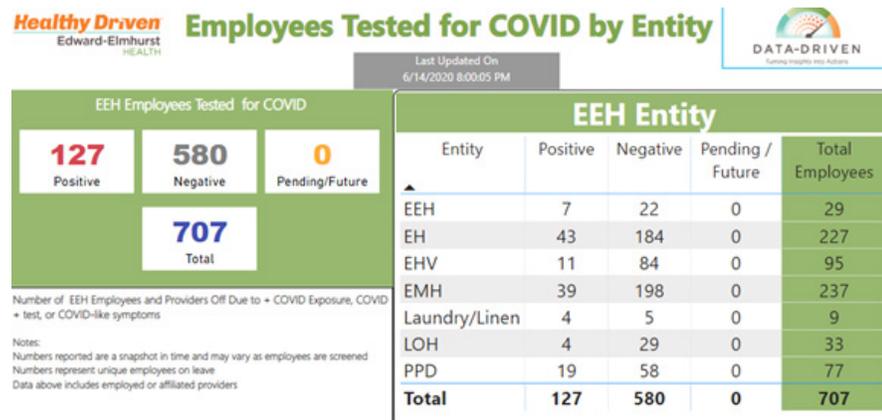
Testing

Throughout the pandemic, the laboratory and pathology team diligently expanded testing options and capacity to meet growing needs. To date, approximately 37,000 COVID-19 polymerase chain reaction (PCR) tests have been administered to diagnose COVID-19 patients in the community, with testing capacity expanded to over 1,000 tests per day. As testing is now required for all surgical patients, this capacity has been critically important in supporting our reactivation plan. In addition, EEH initiated SARS-COV-2 serology (antibody) testing designed to detect IgG antibodies to SARS-CoV-2 in human serum and plasma. It is hoped that antibody testing will help reduce future spread of COVID-19 by enabling more targeted surveillance, testing and screening efforts. Capacity for antibody testing is now approximately 1,000 per day and will be offered to all employees.

As noted earlier, EEH began working with its medical staff in late March to develop a process to provide convalescent plasma infusion to EEH inpatients—an experimental treatment with the hope of improved outcomes. To date, over 100 units of convalescent plasma have been infused to patients throughout the EEH system.

Employees

The safety of our employees has been paramount throughout COVID-19 pandemic. The graphic below provides statistics through June 15, 2020 on the number of employees tested due to known exposure since March. To date, 700 employees have been tested, with 127 positive for COVID-19 (18%). Sadly, we have had one employee die of the disease.



In addition, EEH has maintained its commitment to full transparency. Information, including COVID-19 statistics and dashboards, clinical protocols and other relevant information is continually updated and is available on the employee portal. Employee town halls, where employees are invited to submit questions anonymously, have continued on a weekly basis, with an average of over 2,000 participants per week.

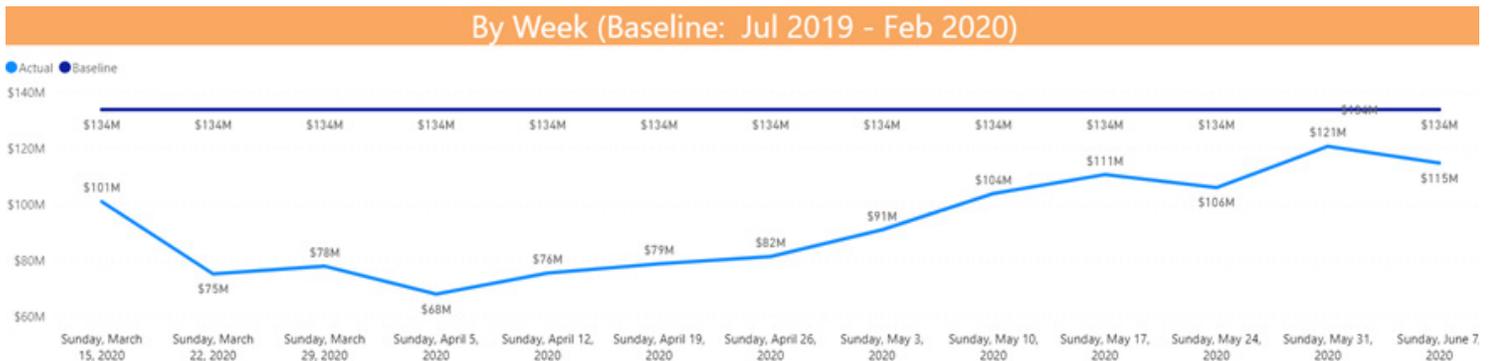
Reactivation

As the rate of increase in COVID-19 cases began to stabilize in late April and Governor Pritzker's Restore Illinois plan began to take shape, EEH established teams to reactivate services that were essentially shut down during the "stay at home" period. Five teams were developed to ensure that elective services were ready to begin the very day the restrictions were lifted:

- **Outpatient diagnostics and services**, including imaging, rehabilitation, sleep, cardiac diagnostics and immediate care
- **Surgery and procedures**, including surgery, endoscopy, cardiac catheterization and neuro-interventional procedures
- **Physician offices**
- **Linden Oaks services**

- **Communications** — which was accountable for supporting all internal and external communications around re-activation, including patient messaging, 'safety promise' signage and social distancing cues, and marketing campaigns to reassure patients it is safe to return for care.

Through June 15, volumes are steadily increasing, but are not yet at budgeted and prior year levels. Volumes are strongest in the diagnostic testing and surgical/procedural areas and weakest in the Emergency Departments and Immediate Care Centers. The graphic below shows the weekly trend in gross revenue compared to the baseline period of July 2019-February 2020. May alone saw a \$30M lift in gross revenue compared to April, and during the week of June 7, revenues were approaching 86% of baseline—compared to about 50% in early April.



Financial Management

Leadership has been highly focused on managing financial resources during the pandemic. Many actions were taken to ensure EEH remains financially strong:

- Cash flow forecasts were immediately prepared and credit facilities were put in place to ensure EEH had enough cash to survive the pandemic and recovery (\$415M).
- The Investment portfolio was managed to reduce risk from fallout of declining markets.
- Pre-emptive calculations of Historical Debt-Service Coverage Ratio (HDSCR) were prepared and steps taken to ensure defaults would be avoided if at all possible.
- All available relief funds are being sought including both grants and loans through the Business Recovery Committee, formed in response to COVID-19.
- Clinical protocols were designed to minimize PPE utilization to reduce spend while protecting patients and employees.
- A labor pool was formed to centralize non-working staff for deployment to needed roles such as visitor screening, infection control, employee health, housekeeping and COVID-19 related patient care.
- Capital spending was reduced for the remainder of FY20, and into FY21 with target cash savings of \$35M/year.
- The 401(k) retirement match was suspended saving \$14M/year.
- PTO was mandated in May generating \$6M of labor savings while allowing employees to draw full pay.



- Furloughs were instituted on May 31 with a target savings goal of at least \$2M per month.

These activities were communicated to banks, lenders, and rating agencies as EEH secured the additional capital needed to survive the pandemic. Between the continued financial improvements that had been made pre-COVID-19, and the steps taken in response to COVID-19, both S&P and Fitch affirmed EEH's A rating, and Fitch even affirmed a "stable" outlook. As interest rates on both new debt/lines of credit and current debt can be affected by our ratings, these affirmations alone will save EEH millions.

The EEH Safety Commitment

Edward-Elmhurst Health has always placed safety at the forefront of everything we do. For over five years, the Road to Zero Harm initiative has helped us use the kinds of safety protocols used at airlines, in order to eliminate errors at our healthcare facilities, like the spread of infection. Every employee has received training on the use of a set of tools and practices that has been proven to decrease error and increase safety in healthcare. In addition, the health system has received national recognition for safety and quality practices. In order to reinforce and communicate the steps we are taking to prevent the spread of COVID-19, the organization adopted the Edward-Elmhurst Safety Commitment.

So that patients know what to expect when they visit an EEH facility, the safety commitment has been widely communicated. Pop-up banners, flyers, signs, floor clings and other safety materials were developed and broadly distributed to help guide sites in their safety practices and communication with patients.



The Edward-Elmhurst Health

Healthy Driven
Edward-Elmhurst
HEALTH

SAFETY COMMITMENT

We continue our steadfast focus on safety – for our patients, visitors, physicians and staff.

You will find consistent safety measures in place at all of our hospitals and outpatient health centers.

- Staff, patient and visitor screening
- Physical distancing
- Clean and disinfected facilities
- COVID-19 patient testing prior to procedures
- Restrictions on visitor policy
- Personal protective equipment (PPE)
- Designated COVID-19 care areas
- National recognition for quality and safety



The Real Heroes

EEH's organizational accomplishments pale in comparison to the heroic stories shared by our physicians, staff and patients. A few of these are provided below.



Young dad discharged after a long and difficult hospital stay

Jonathan Davila is not the typical patient with COVID-19. Thirty years old and otherwise healthy, the husband and father of three from Addison experienced a cough in mid-March that wouldn't go away. When breathing troubles ensued, he decided to check in to Elmhurst Hospital where he was diagnosed with COVID-19. Even more atypical was the 44-day length of stay required for Jonathan to get back on track from what became a perilous and grim road to recovery. Supportive care during his hospital stay included intubation for three weeks for respiratory failure, dialysis, antibiotics, anti-inflammatories and other therapies. Things were also very tough for Davila's wife and family who were expecting the worse.

Davila was discharged from Elmhurst Hospital to Marianjoy Rehabilitation Hospital to the encouraging cheers of nurses, doctors and hospital staffed who lined the halls to say goodbye. Dr. Phillip Cozzi, EEH pulmonary disease specialist who treated Davila, remarked "What's really extraordinary about this particular scenario is that he was so young, so healthy otherwise and so profoundly ill, to a degree where we weren't sure we were going to get him through. And it was through a comprehensive team pushing the limits...that helped him get over the top." Davila's wife was beyond relieved when he was discharged and attributed the fact that he is still alive to his doctors and nurses. Dr. Cozzi said Davila's release from the hospital is an inspiration. "It really demonstrates to us that the long, hard effort is worthwhile."

Team saves patient with extraordinary measures

The following letter was written by Bryan Foy, MD. It tells a story of the kind of extraordinary efforts that Edward-Elmhurst Health physicians and staff have put into the care of patients and the fight against COVID-19.

ECMO or extracorporeal membrane oxygenation is a treatment that uses a pump to circulate blood through an artificial lung and back into the bloodstream. It provides heart-lung bypass support outside of a patient's body and is used to treat patients with severe and life-threatening illness.

Team:

Forty-seven days ago, late on a Friday afternoon, we were contacted about a 49-year-old man at Copley with severe Covid pneumonia who needed ECMO. His insurance stipulated Edward as his preferred provider. He was too unstable to move without support.

I discussed the case with Bill Stephan. "Bill, we have never done this before, but I need your help. We are going to take a crew and go to Copley and put this guy on ECMO and bring him back." Bill's response? "What time are we going?"

With administrative blessing, we formed a crew of cath lab, CVOR, and perfusionists. I mention them here by name: Emma, Claudia, Tracey, Cayla, Mike Clark, Eddie, Mike Leininger, and Alex. We took an ambulance and several cars and our ECMO toys, enough to cannulate five people. This team descended upon the Copley ICU like a landing force; super professional, super competent. I was

just so impressed as the Copley staff stood slack jawed while in 60 minutes, we had the patient cannulated on ECMO and out of the building. Unfortunately, we left behind in the ICU the patient's own parents, both of whom were soon to die from Covid. Devastating.

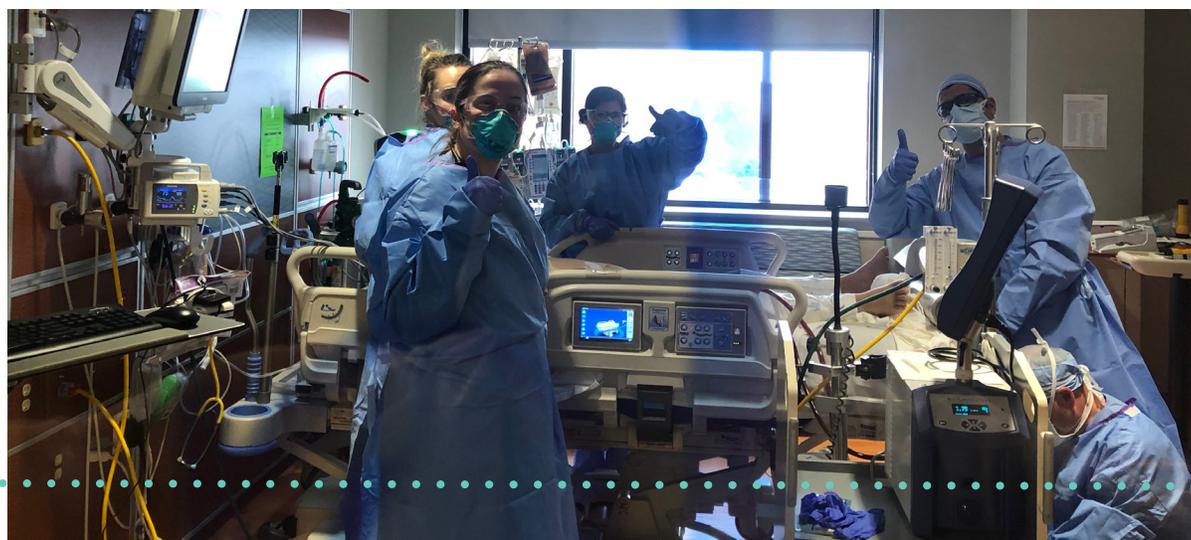
The hospital course was difficult, including having to change our cannulation strategy the very day after arrival. The patient tried to die many times. We were blessed by superb care from Drs. Kessler, Greenhill, and Zeman from pulmonary. The nursing care in the Covid ICU was nothing short of spectacular, augmented frequently by our own CCU nurses. These nurses are the true heroes of this success.

The patient was later discharged from Edward Hospital. He is off dialysis. He is off the ventilator except for a few hours at night, and he will soon be free of that. He is neurologically intact. The last several evenings the ICU nurses have helped him Facetime with his family.

In the Talmud it is written that he who saves one life saves the whole world entire. It took a village of people committed to saving this man's life which just seems so precious to me, as we have all seen the devastation of Covid including taking his own parents.

I truly believe there is not another hospital in Chicago that could have pulled this off and I salute at attention all of my fellow co-workers who toiled tirelessly to save this man. I am blessed and proud.

BKF



Our own notable healthcare heroes

Crain's Chicago Business has recently announced its list of Notable Healthcare Heroes, and Edward-Elmhurst Health's infection control and prevention team continues to make us proud. The list, which will be published in the June 29 print edition of Crain's, features and honors individuals and teams on the front line of the COVID-19 pandemic. Named to the list include members of Edward Hospital's infection control team - Jonathan Pinsky, M.D., Mary Anderson, Deb Diamond, and Kate Prueitt and members of Elmhurst Hospital's infection control team - David Beezhold, M.D., Annemarie Schmocker, Sara Czechowicz, and Denise Ferris.

The honor recognizes "heroes who have selflessly cared for others and made a significant impact during this time of crisis." We couldn't agree more. Drs. Pinsky and Beezhold, along with their teams, have addressed a myriad of issues and challenges since the onset of the pandemic - PPE shortages,

entry screening, contact tracing. They worked tirelessly to develop clinical guidelines, infection prevention strategies, and department workflows. The constantly monitored and consulted with community, state and federal partners regarding COVID-19 trends and public health guidance. They supported workers on the front lines, worked to ensure continuity of processes, data collection, and education for staff.

The dedication and compassion show by this team, as they actively treated patients with COVID-19 while passionately working to protect the health and safety of clinical teams is nothing short of astounding. They say they got through the last several months by pulling together, relying on each other and supporting each other through the rough spots.

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CRAIN'S 2020

NOTABLE HEALTH CARE HEROES

The following was written by Dr. Pinsky as he described the unprecedented nature of the challenge:

When we faced our first case of COVID-19, three months ago, there were no medications proven effective to treat it. Because it was new, there had not been any high-quality studies that would inform us. Unlike other infections and conditions we treat that have years of evidence-based medical research, we were simply in the dark. All we had were anecdotal reports from the doctors that treated these patients in the months before, in China and in Europe.

Prior to COVID-19, one would scorn any treatment that did not have evidence either from randomized clinical trial or through established guidelines. But the SARS-2 CoV virus was not in any textbooks, having just emerged a few months prior.

As the surge of patients came, it felt like we were starting medical school all over again or doing a new specialty training. But this was a fellowship without mentors and without a textbook.

We learned that the SARS-2-CoV virus leads to a dysregulation of the immune system, with elevated levels of interleukins, inflammation, and coagulopathy. In China and in Europe, physicians began to use Tocilizumab to block IL-6, steroids, and anticoagulation, with anecdotal success. We treated our patients based on the best available evidence. Pharmacy was able to allocate a significant supply of Tocilizumab, which probably saved lives and prevented intubation. Many of our recovered patients generously donated convalescent plasma. The efficacy of convalescent plasma is also not yet proven in a clinical trial.

The only medication that has been proven benefit in a high-quality randomized trial is Remdesivir. Gilead has donated this drug to hospitals under and FDA emergency use authorization. EEH has received a portion of this supply which we are allocating to the highest risk patients, that will benefit the most.

We hope the next chapter of COVID-19 we will have evidence from randomized clinical trials on the efficacy and safety of other treatments: IL-6 blocking agents, anticoagulation, other antivirals, convalescent plasma, monoclonal antibodies, and others. We hope, in the next chapter, we can make informed decision-making based on evidence that is so critical to the practice of medicine.

Elmhurst 6-year-old girl takes violin practice outside to raise funds for COVID-19 fight at Elmhurst Hospital

(From a Chicago Tribune article, June 4)

It didn't matter to six-year-old Nora Mendelson that no one else was in earshot recently when she told her mom, Cathy Humikowski, that she had a "secret idea." "We were outside, and nobody was there, but it was important to her that it was a secret, so she whispered it to me," Humikowski said.

Nora's secret idea was to bring her small violin outside of their Elmhurst home each afternoon to practice. That way, she also could put a bucket down to allow anyone passing by to leave a donation to help others during the coronavirus pandemic. "She came up with this completely on her own," Humikowski said.

"I feel pride. Whenever you see a small child being so giving without prompting, it's pretty special." Nora also made it clear to her mom that she wanted whatever financial help she'd be able to give with the donations to stay close to home. "That was very important to her, so she picked Elmhurst Hospital," Humikowski said. "I told her that we're not on a busy street, so there probably wouldn't be a lot of people passing by."

Humikowski called her mother and sister-in-law to tell them about Nora's idea. Contributions by family and a few people who came by the first day of Nora's outdoor violin practice session resulted in \$100 being raised. As of Wednesday, about a week after Nora began practicing outside, she had raised about \$250. "I told her we could make a payment to the hospital online for the amount that she raised, but she said we have to bring 'those dollars' that people donated," Humikowski said.



Nurse helps family say goodbye

Heather Waite is a cardiac nurse at Elmhurst Hospital working on a COVID unit. Last week, she cared for a patient who was at the point of needing hospice care. Heather talked to the family about the patient's condition and helped them make an informed decision to begin hospice care. The patient's family lives out of state, and Heather learned that they were concerned about the expense of funeral arrangements. She offered to make the arrangements for the services herself and suggested the family set up a Go Fund Me page to help with costs.

While the family was not able to say their goodbyes in-person, Heather coordinated several virtual visits using Facebook and Facetime before the patient passed away on April 24. The family is at peace knowing they were able to see her one last time.

Connecting family members in stressful times

Right about the time the coronavirus pandemic began to spread in the U.S., Sue and Mark Striepling's daughter discovered a lump on her thyroid. Colette Striepling, 19, had two biopsies done, but the results were inconclusive. The Strieplings, of Palos Heights, scheduled a surgical procedure for Colette at Edward Hospital to get a more definitive answer.

In normal times, this type of procedure would be nerve-racking. But these were not normal times. Because of the COVID-19 outbreak, Colette needed to undergo COVID-19 testing then self-quarantine for 72 hours before her procedure. She didn't leave her bedroom the entire time except to use the bathroom. When her parents dropped her off at the hospital entrance the day of her surgery, they were not permitted to come into the building because of the hospital's COVID-19 visitor restrictions.

"The people at the entrance let me say goodbye, they were really compassionate. I wanted to give her a hug and she said, 'I can't mom, the social distancing,'" Sue says. "That was hard." Sue sent a packet of information with her daughter, including requests for the anesthesiologist to call her before the procedure, as Colette has a heart condition and may have adverse reactions to anesthesia. Then she and Mark waited in the parking lot while their daughter was prepped for surgery.

"The first person that called was the anesthesiologist. He probably spent 20 minutes on the phone, saying he couldn't imagine what we're going through. He was the head of the department, a specialty cardiac anesthesiologist," Sue says. "What a relief. He spent so much time talking and explaining and listening to our concerns." Next the surgeon performing Colette's procedure called the Strieplings and told them that she would have a nurse call them once the

lab determines whether the nodules on Colette's thyroid were cancerous—even before the surgery was complete.



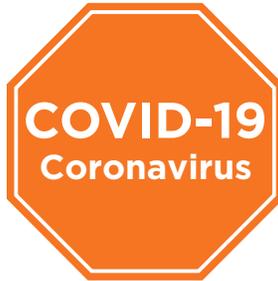
"I was at peace," Sue says. "Then the anesthesiologist texted us to tell us Colette was happy, doing fine. He gave us the reassurance and he didn't have to – I was already reassured." In March, Edward-Elmhurst Health changed its visitor policy in response to the COVID-19 outbreak. "The current visitor policy takes away an important support system during a very scary time," says Mike O'Shea, director of Surgical Services at Edward Hospital. "We're doing everything we can to step up and be that support system.

"You're used to having a family member there with you, now you don't have that anymore—someone to see you off in pre-op," O'Shea says. "We communicated internally with our physicians, nurses, anesthesiologists – saying we need to step up in terms of communication with family members and their designated support person and make sure we're doing everything possible to make them feel like they're here with us."

During their daughter's surgery, Mark and Sue walked around the Edward campus. They soon received a call from the surgeon who explained the lab results. "You typically don't get phone calls from physicians while a procedure is taking place," O'Shea says. "We're calling people more often than we ever have. The empathy our staff and providers feel for the patients shows. I'm extremely proud to say they are becoming that support person for our patients."

Lab tests revealed follicular cancer was encapsulated in the nodule. The surgeon was able to remove the nodule entirely, and Colette will not require radiation or chemotherapy. After the procedure, the anesthesiologist also reached out to let them know Colette had to stay in recovery a bit longer because she felt sick from the anesthesia. "He also texted me on the way home, and I told him she was doing fine," Sue says, adding that Colette told her she was nervous before surgery and that her nurses were "motherly" and a comfort to her. "The next morning, I received another text to see how she was doing.

"People were amazing. Above and beyond. COVID-19 has changed so much, and it's hard. The reassurance and how they treated us was truly a blessing."



SAFE

SEAMLESS

PERSONAL
