

Duke Response to the NHRMC Request for Proposal

Clarifying Questions

April 1, 2020

Please provide a brief statement on the Respondent's support for affiliated health systems in response to COVID-19.

The Duke clinical enterprise including – Duke Raleigh Hospital, Duke Regional Hospital, Duke University Hospital, all ambulatory facilities, Duke HomeCare & Hospice, and Duke Primary Care along with its aligned faculty practice plan, the Private Diagnostic Clinic – has been fully involved as system-wide decisions, policies, and processes to address the COVID-19 pandemic are developed and implemented. As indicated in Duke's response to the NHRMC request for proposal dated March 16, 2020, NHRMC would benefit from the same level of inclusion and participation under the proposed NHRMC/Duke strategic partnership.

The bulleted list below represents only a select sample of the initiatives deployed/being deployed by Duke for the benefit of its team members and the patients and communities served by each Duke hospital and ambulatory location during this pandemic. Additionally, these efforts more broadly provide support to the state, nation and world. The following key COVID-19 response initiatives have been driven and supported by the infrastructure and resources of the full Duke enterprise including its focus on community/population health, academics, and research resources and capabilities.

Response Organization and Leadership

- **Established the Duke COVID-19 Leadership Task Force** in February comprised of leadership from across Duke. The task force provides direction, oversight, resources, and support for Duke's teams.
- **Instituted a system-wide hospital incident command system (HICS)** structure in early March to provide centralized leadership and monitoring of the COVID-19 situation, thereby lessening the burden of individual entities. The HICS enables increased coordination and planning across Duke and provides hospital/entity leaders regular access to system level leaders and experts across domains¹ allowing for prompt escalation, reporting, and resolution of issues.
- **Combined the HICS with the high functioning Duke Quality System** to provide an agile foundation for rapid change, communication, and education. This has been key to enabling clinical protocols and processes to be modified while also escalating identified barriers and fast-tracking solutions to COVID-19 challenges.

Working with Providers Locally and Around the World

- **Collaborating with regional health systems** to co-develop and issue guidelines related to rescheduling elective surgeries, instituting visitor restrictions, and modeling and planning for a potential surge.
- **Providing access to broad expertise, including with respect to best practices and other clinical and safety protocols.** Duke's deep bench of epidemiological, infectious disease, and employee health and occupational safety experts are influencing and serving as resources to local, state, and national policy makers. Duke's extensive network of other academic institutions, including Duke Kunshan University in China and Duke - National University of Singapore Medical School², enables Duke to collaborate on the world stage to co-develop solutions informing its response to the COVID-19 pandemic.
- **Providing access to life-saving treatment via clinical trials.** Duke is participating in three randomized clinical trials (one NIH and two industry-sponsored) to evaluate remdesivir, one of the most promising drugs for treating COVID-19 in patients with moderate to severe illness. In addition, multiple other studies are under consideration for earlier phase treatments. The research team is committed to extending COVID-19 research studies to the Duke community hospitals as soon as feasible.

¹ E.g., human resources, supply chain, infection prevention, emergency preparedness, communications, employee health, infectious disease, occupational and employee safety, finance, information technology, clinical labs, medical branch and nursing branch.

² Among the first groups outside of China to isolate and culture live virus, which has provided a foundation for many studies and collaborations; developed one of the first serological tests for COVID-19, allowing epidemiological tracing which connected two of the major outbreaks in Singapore; detected novel mutation in the virus after it emerged from China that may attenuate infectivity.

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- **Actively engaging in cutting edge therapeutic research** to develop COVID-19 antibody countermeasures potentially available for testing and use this year. Additionally, Duke is leading numerous epidemiological studies to understand the transmission of the virus. ([Link to article: Duke Researchers Pivot to Attack the New Corona Virus](#))

Keeping Duke Patients and Team Members Safe and Informed

- **Providing access to COVID-19 testing.** Duke's clinical laboratories went live on March 23 with its own CDC-validated COVID-19 test allowing employees and the inpatients under investigation to be prioritized for testing. Results from the test are returned in hours instead of days as available through commercial labs.
- **Utilizing virtual video visits** through patients' existing Duke MyChart accounts. Duke is establishing telehealth capabilities for approximately 1,500 providers to replace in-person visits. One use case supports the virtual screening of patients for COVID-19 who are then referred as indicated to Duke's seven drive-up testing sites across Durham and Wake Counties, serving pediatric and adult patients.
- **Deploying Duke's communications infrastructure** to establish dedicated channels that are continuously updated with the latest resources and information. Daily unified, system-wide communications from the hospital presidents to all employees highlight important updates and guidelines with additional detail also provided to managers. Administrators and physician leadership from across Duke, inclusive of all hospitals, are routinely conducting virtual town hall meetings and panel Q&A sessions to proactively inform as well as respond to staff/provider concerns. Additionally, words of encouragement and appreciation from Coach Krzyzewski recognized the Duke team's commitment and efforts to take care of patients during this stressful time.
- **Establishing and communicating best practices** to provide patient care that is safe for Duke's patients and team members. Duke's infectious disease, occupational safety, occupational health, medical and nursing leaders are working together to develop guidelines, policies and procedures that support the delivery of high-quality care to patients who are under investigation or who have tested positive for COVID-19. The documents defining the best practices are published on an internet site available across the Duke clinical enterprise. Duke's best practices are also available to its partners such as the Duke LifePoint Hospitals and other health systems on request to support their staff and the care of their patients.
- **Deploying Duke's information technology expertise** to support changing workflows in the clinical and administrative environments. In anticipation of a significant shift in administrative support work from offices to homes, Duke increased internet bandwidth campus wide by threefold and increased concurrent session capacity on its virtual private network (VPN) to 10,000. To support social distancing in the workplace, Duke deployed the Zoom videoconference platform and rapidly educated the end-users resulting in 11,000 additional Duke users and over 20,000 Zoom meetings during the initial two weeks. To support virtual ambulatory patient visits, Duke is equipping and training for approximately 1,500 primary care and specialty providers on the Extended Care secure telehealth platform. Simultaneously, capacity for concurrent telehealth visits was increased from 50 to 200. To support hospitalized patients on isolation, Duke configured and deployed iPads to support video visits between patients and their loved ones.
- **Deploying Duke's human resources infrastructure** to provide timely communications to employees regarding workplace safety, working remotely, employee benefits (e.g., instituting zero-dollar copays for virtual urgent care visits), and other guidelines that balance the safety of Duke's valued team members with the commitment to care for its community. Examples of Duke support for employee well-being include: an employee hotline has been established that allows minimal wait-time for COVID-19 screening and testing; sophisticated regimens for the conservation of and effective use of personal protective equipment (PPE); and the broad use of telehealth in lieu of in-person visits to ensure the safety of providers and patients.
- **Innovating solutions to meet PPE demand.** In keeping with its top five national ranking by Gartner (a research and advisory company), Duke's purchasing and supply chain expertise has been invaluable in helping Duke to procure PPE to protect its staff and patients. To help relieve shortages, Duke clinical and research teams have begun novel decontamination of N95 masks so that they can be safely reused. Similarly, the School of Engineering is creatively manufacturing face shields using 3D printers.