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Patient Care Services Staffing Support During a Pandemic

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Providing adequate staff during a pandemic requires the creative use of all human resources from within the organization and from outside agencies offering assistance. With the use of all possible resources, clinical RNs are better supported at the bedside as they provide safe patient care. Defined processes provide clear information to staff regarding available human resources and their appropriate use.

The pandemic COVID-19 has left hospital systems without adequate staffing resources to provide care for the surge of patients experienced in their organization. The objective of this article is to describe creative methods developed to meet increased staffing needs and implemented to ensure registered nurses (RNs) have the necessary resources to provide safe, compassionate care.

NORTHEAST GEORGIA HEALTH SYSTEM AND COVID-19

Northeast Georgia Health System (NGHS) is a not-for-profit system located in northeast Georgia. It operates 4 acute care hospitals that, combined, have 765 licensed beds and 40,000 discharges annually. It also operates 2 skilled nursing facilities, over 100 physician practices across many specialties, and offers a full range of inpatient and outpatient services. Its flagship hospital is a tertiary care facility located in Hall County that serves as a safety net for the financially and medically indigent patient.

The service area for NGHS consists of 13 counties, urban and rural, with a population close to 1 million residents. The health system’s service area has experienced significant growth over the last 10 years and is projected to continue to grow at rates higher than state and national estimates, with most of the growth occurring in the 65+ age group.

In March, when the COVID-19 virus was first documented in the United States, staff at the health system began tracking and trending demographic information on patients who tested positive at their facilities. This information was displayed through an electronic dashboard and updated daily. Trends were quickly identified showing higher rates of infection for certain employer and demographic populations. Leadership soon realized that Hall County was a high risk area for the COVID-19 virus. NGHS worked with local leaders, the Department of Public Health, and the Georgia State Government to increase testing and develop communications directed at identified employers and residents to inform them about how to protect themselves and their families from contracting and spreading the virus.

Several entities had begun to develop models to assist hospitals in estimating the timing and impact on clinical demand and potential strains on hospital capacity (intensive care unit [ICU] bed need, ventilators, staffing, personal protective equipment, and supplies) related to this virus. The Georgia Hospital Association recommended the use of the Covid-19 Hospital Impact Model for Epidemics (CHIMES) model developed and published by Becker and Chiver1 at the University of Pennsylvania. Initial runs of this model produced projections that showed COVID-19 positive patients would significantly outstrip hospital ICU bed capacity. Leadership assessed all potential spaces that could be utilized for patients and began to convert more rooms/beds to be ICU-capable. All nonemergent patient admissions were delayed or redirected.

In addition to patients with the COVID-19 virus, there is a baseline of emergent patients that continue to need inpatient care for conditions such as trauma, stroke, and heart attack, particularly given the service

KEY POINTS

- Providing adequate patient care staffing during a pandemic requires creative teamwork.
- Proper planning provides clinical RNs with improved resources to provide safe patient care.
- Defined processes allow human resources to be utilized in a safe and effective manner.
area and tertiary care status. An average daily census (ADC) for these essential admissions was layered onto the model’s projections to calculate the expected bed need and resource requirements for all hospitalized patients. This daily tracking tool assisted leaders in planning and provided data to share with state and local officials when discussing assistance.

With historical data on the effect of the epidemic on the census, adjustments have been made to the model inputs to align it with the health system’s actual experience. The census has been tracking very close to projections. Currently, the model shows NGMC ADC for COVID-19 related admissions peaking in mid-June.

DESCRIPTION OF NGMC NURSING TEAM
The nursing strategic leadership team of Northeast Georgia Medical Center (NGMC), an entity of NGHS, is composed of many highly experienced nursing professionals including a chief nursing executive, 2 facility chief nursing officers, 2 associate chief nursing officers, 2 executive directors, and 5 directors. Span of control methodology determines nurse manager positions for most nursing units and assistant nurse manager positions for select nursing units.

PRE-PANDEMIC STAFFING PROCESSES
The nursing strategic leadership team has developed staffing policies to support clinical RNs who provide patient care at the bedside. According to the ANA’s Principles for Nurse Staffing, 3rd Edition, “The provision of appropriate nurse staffing is necessary to reach safe, quality outcomes and is achieved by multifaceted decision-making processes that must consider a wide range of variables.” Through a professional nursing shared governance structure, clinical RNs are empowered to help determine staffing plans during the budgeting process. NGMC nursing care is led by nurses of all levels with respect for the expertise all nurses bring to the decision-making process.

The central staffing office (CSO) matches staffing resources to patient acuity and volume at all 4 facilities 24 hours a day/7 days a week. During the pandemic, the director of central resources and 4 managers rotate coverage at each shift change to assist with the pandemic complexity of staffing (Table 1).

Before the pandemic, nurse managers scheduled departmental staff who were budgeted to a cost center. Staff could be reassigned by the CSO to work in another department and carry a patient load within their work group. Contingent resources are staff scheduled who work as needed taking a patient assignment within a defined work group and include a budgeted resource pool, unit-based PRN, system-based PRN, and secured agency staff also known as “travelers.”

PANDEMIC PROCESSES—EXPANDING CAPACITY
The NGMC nursing strategic leadership team immediately began a plan to address the need for additional intensive care and medical beds because of the COVID-19 pandemic. Expanding capacity became a priority for the team as it became evident that Hall County numbers were increasing by early May 2020 and had shown a 7-fold increase in confirmed cases over the preceding 5 weeks.

NGMC had a total of 91 intensive care beds pre-pandemic. Fifty-five additional negative-pressure intensive care beds were opened to provide care for COVID-19 patients with the additional option of

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Table 1. Patient Care Services Staffing Support

| Staffing Processes Pre-Pandemic | Staffing Processes Pandemic Established |
|----------------------------------|----------------------------------------|
| Reassigned Staff                 | Clinical staff assigned to assist select departments or functions in one of the following roles: |
|                                 | • Transport Team (clean)                |
|                                 | • Isolation Transport                   |
|                                 | • Distribution                          |
|                                 | • Gown/Mask Reprocessing                |
|                                 | • Family Liaison (select units)         |
|                                 | • COVID-19 Airway Team                  |
|                                 | **Helping Hands**                       |
|                                 | Licensed and non-licensed staff assigned to a shift primary nurse to provide care to a select patient assignment. Assist nurse with patient assignment. |
|                                 | **Pandemic Partners (PP)**              |
|                                 | The PP does NOT take patient assignment. |
|                                 | Unit is -1 or greater (RN) to staffing plan. Pandemic staffing plan is implemented. |

Yellow - Direct Patient Assignment  
Blue - Not Direct Patient Assignment
another 24 beds if necessary. The medical capacity at NGMC Barrow and NGMC Lumpkin was increased by 38 to assist with COVID-19 patients at NGMC Gainesville and NGMC Braselton as they reached 85% medical capacity. Additionally, a 20-bed medical mobile unit provided by the state of Georgia is planned to open at NGMC Gainesville in late May to assist with the additional medical COVID-19 patients.

**PANDEMIC PROCESSES**—**MEETING INCREASED STAFFING NEEDS**

The medical intensive care unit (MICU) FY2020 budget was based on a unit of service of an ADC of 15 and 20.64 worked hours per patient-day (WHPPD). MICU II and MICU III were opened without budgeted and planned intensive care unit staff using a WHPPD of 18.2, which equated to an RN deficit of 110.4 RN full-time equivalents (FTEs). Contingent and reassigned staffing resources were utilized to fill a limited number of the more than 100 registered nurse FTEs necessary to staff the 2 new MICUs. The opening of these units also created the opportunity for other modified staffing plans outlined below (Table 2). These resources provided direct patient care.

**PANDEMIC PROCESSES—ASSISTING THE SHIFT PRIMARY NURSE WITH INCREASED PATIENT LOADS**

As the admissions of COVID-19-positive patients escalated to 33 during the month of March 2020 and the NGMC nursing workforce was significantly impacted, nursing strategic leaders proactively prepared to adjust nursing staffing models to ensure the delivery of safe patient care. As recommended by Martland et al., NGMC considered alternative sources of staffing to supplement existing critical care nursing staff. New models were designed to be activated and inactivated on designated units as patient volume and nursing workforce needs dictated. Some units used an altered staffing model, whereas others

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**Table 2. Patient Care Services Staffing Resources**

| Reassigned Staff Source | Contingent Staff Source | Helping Hands Staff Source | Pandemic Partners Staff Source |
|-------------------------|-------------------------|---------------------------|-------------------------------|
| PCS Scheduled Department Staff | NGMC Budgeted Resource Pool | Perioperative Staff (Surgical decreased volume) | Disaster Medical Assistance Team [DMAT] RN and Paramedic Departed 5/1/20. Can be recalled |
| RNs from physician practices, clinics, and other ambulatory settings areas with recent acute care experience | NGMC Unit Based PRN | Coordinators (Stroke, Sepsis, Diabetes, Bariatric, Quality, etc.) | Reassigned RN outside of workgroup (i.e. RN from Med-Surg to ICU) |
| NGMC System Based PRN | | | |
| NGMC Secured Agency Staff | | | List of greater than 140 RN, LPN, and other clinical staff from physician practices, clinics, and other ambulatory settings areas with recent acute care experience |
| Assistant Nurse Managers | | | ○ Attended brief orientation |
| Nurse Educators | | | ○ Submitted availability for schedule |
| State Sponsored Agency RN (ICU) 4/27/20 | | | Community Volunteer |

Green - Existing NGMC PCS Staffing Resources  Purple - Pandemic Resource

LPN, licensed practical nurse; PRN, pro re nata (as needed).
continued normal operations. Changes mostly impacted the NGMC Gainesville and NGMC Braselton campuses but as the crisis unfolded, alternative staffing models were available to assist at the NGMC Barrow and NGMC Lumpkin campuses. The addition of critical care beds without budgeted staff led to the need for additional resources for the shift primary nurses to manage their increased patient load.

**PANDEMIC PARTNERS**

An identified need for RNs to have help with their patient load became apparent and the role of the Pandemic Partner (PP) was developed. PPs are licensed and non-licensed staff who are assigned to a shift primary nurse to help provide care to a select patient assignment. The PP does not take a patient assignment, but completes tasks delegated by and under the supervision of the RN. Staffing plans were developed for when staffing levels reached both 50% and 70% of the unit staffing plan. PPs are implemented when the nursing unit is −1 or greater RN to staffing plan. For example, when the unit is at −2 to the staffing plan for RNs, the CSO strives to send 4 pandemic partners (Table 3).

Pandemic partners were implemented after a pilot in the medical-surgical and critical care areas. Twenty-six participants ranked working with/as a PP, a 1.8 on a scale of 1 (excellent), 2 (good), 3 (neutral), 4 (not great), or 5 (awful), and the process in general, a 2.0 using the same scale.

Sources for PPs include RNs, licensed practical nurses, and other clinical staff from the Northeast Georgia Physicians Group, The Heart Center, and other NGHS areas. These clinical staff attended a brief orientation and submitted their availability to assist the shift primary RN at the bedside.

Community volunteers with clinical experience/licensure were also vetted for the PP role. After attending a brief orientation, they submitted availability to assist the shift primary RN at the bedside.

Pandemic partners from throughout the organization are scheduled through the central staffing office to ensure the best possible distribution of this resource to the units.

Another source of assistance for patient care included a disaster medical assistance team, which is a group of professional and paraprofessional medical personnel organized to provide rapid-response medical care or casualty decontamination during a terrorist attack, natural disaster, or other incident in the United States. At NGMC, RNs and paramedics were deployed to assist at the hospitals to help cover patient care needs. They assisted with staffing as pandemic partners instead of taking a patient assignment because the short time frame they were with the organization did not allow time for orientation. They were deployed to NGMC until May 1, 2020, and could be recalled when needed.

**PANDEMIC PROCESSES—PROVIDING RESOURCES TO ASSIST WITH COVID-19–RELATED NEEDS**

Many additional needs presented to the organization because of the pandemic. The first group developed to assist was called Helping Hands and came mostly from the perioperative areas because elective surgeries were cancelled for the protection of staff and patients. Coordinators, including sepsis, diabetes, and stroke, joined the perioperative staff in these helpful functions.

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**Table 3. NGMC Pandemic Staffing Plan for Intensive Care Units**

| Capacity | CCU | CVICU | STICU | PT | CCU | CVICU | STICU | PT |
|----------|-----|-------|------|----|-----|-------|------|----|
| RN       | 20  | 14    | 12   | 9  | 18  | 13    | 11   | 9  |
| Tech     | 14  | 10    | 8    | 6  | 14  | 10    | 8    | 6  |
| RN/PT Ratio | 1.4 | 1.4   | 1.5  | 1.5| 1.4 | 1.4   | 1.5  | 1.5|

CCU, critical care unit; CVICU, cardiovascular intensive care unit; PT, patient; STICU, surgical trauma intensive care unit.
These clinical staff members assisted select departments with functions such as clean and isolation transport of patients, the reprocessing of personal protective equipment, a COVID-19 airway team, and sterile processing department needs. Additionally, they functioned as family liaisons assigned to communicate with family members including Spanish interpretation, rounding with shift primary nurses and physicians, and providing connections with family members using iPads, Zoom, and FaceTime.

**PAYROLL INCENTIVES**

NGMC opted not to use hazard pay during the pandemic but did implement extra shift pay incentives to assist with filling staffing shortages. Shifts are posted on select units for role-based percentage dollar incentives. As an example, 589 extra shifts were filled during 1 pay period using the extra shift pay incentive.

**LESSONS LEARNED**

NGMC had the benefit of learning from the experiences of hospitals where the peak of the COVID-19 pandemic hit first. Northeast Georgia was not an initial hot spot for the virus, and models developed from other hospital’s experiences allowed a window during which all teams at NGMC were able to mobilize and prepare for the expected increase in number of patients. As a result, the hospitals achieved the level of preparation necessary to most effectively staff and care for COVID-19 patients.

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