COVID-19 Workforce Surge Planning Playbook for Patients Requiring General Inpatient Medical Care

*Visit the NC AHEC Program website to assure that you have the most up-to-date document.

Executive Summary:
Due to the increasing pressures on the healthcare system from COVID-19, hospitals should prepare their surge workforce to flex into roles different than their current expertise, particularly with regards to patients requiring general inpatient management. As providers are dividing into "COVID" and "Non-COVID" teams, many patients historically managed by internists and hospitalists will be moved to specialty floors while their providers flex into acute and critical care settings. Thus, specialty care teams that cannot work with COVID patients due to a variety of factors, will need to cross-train to fill roles required to care for patients requiring general medical interventions. The existing workforce must use a team-based care structure to provide optimization of skill distribution and provide high quality care with minimal training.

This document focuses on providing resources for medical inpatient specialists and ambulatory care providers who will be expanding their scope of care to include acute care and general inpatient medical care. This document contains suggestions for focused strategies to maximize skill utilization in defined roles to meet the surge demands of the COVID-19 pandemic and to ensure patients that are displaced to specialty floors receive appropriate care. State regulatory and scope of practice restrictions should always be consulted.

Surging acute care and general inpatient medical provider skills to meet the need requires:
- Refresher training for specialized providers, including protocols for care of displaced patients requiring acute care and general inpatient care.
- Re-distribution and training of skills of both internal and external health care workers to provide a structure that supports general and specialized care patients displaced by COVID-19+ patients using a team based approach.

I. **Team-based care approach:** Utilize a team-based approach for general medical patient management that is supported by formal policy/procedure. This approach should also ensure safety and resilience by following proactive strategies to prevent staff attrition. Recommendations for team-based care are provided in the narrative of the document.

II. **Skills Re-distribution:** Identify skills needed to care for patients requiring general inpatient medical care and inventory skills in the current workforce. Identify gaps and provide training to fill those gaps when necessary. Self-study resources on specific skills are included in the narrative of the document.
- Identify and train experienced providers who can serve as team leads or expert consultants for the management of patients requiring general inpatient medicine.
- Identify and train alternate clinicians who can manage the medical care of general inpatient medicine patients as part of a team. This includes specialist providers overseeing patients displaced from general medical wards to specialty medical wards and providers displaced from their typical setting due to new COVID19-related restrictions.
- Identify and train alternative staff who can execute and monitor a plan of care for general medical care conditions.
- Identify and train alternative staff who can execute fundamental patient care skills.
- Provide a virtual infrastructure to deliver support to on-site staff.

I. Team-based care

Utilize a team-based approach for general medical patient management that is supported by a formal policy/procedure. Deploying each team member to execute their unique skill sets in a collaborative approach will provide force multiplication and allow for efficient care management teams.

A team-based approach does not require staff without general inpatient experience to independently manage a full patient load. The team-based approach allows staff to distribute their skills across the team and provide high levels of care with sub-optimal training.

A team-based general medical patient care approach during the COVID-19 pandemic should include/address the following:

1. **Team huddles or briefings at the start of each shift** to enhance communication, optimize patient care activities, and allow each team member to discuss their clinical strengths and address any concerns.
    a. Resources:
        i. AHRQ Pocket Guide: TeamSTEPPS: Strategies & Tools to Enhance Performance and Patient Safety
        ii. TeamSTEPPS 2.0 Video Training Tools | Agency for Health Research and Quality Videos for Inpatient Medicine. 10 Minutes to Complete.
        iii. Two Principles for Leading Your Organization Through the COVID-19 Crisis
        iv. Ted Talk: How to Turn a Group of Strangers into a Team 13 minutes to complete.
        v. AHRQ teamwork and communication presentation. Transcribed presentation. 30 minutes reading time to complete.

    b. Goals:
        i. Orient new team members to plans of care
        ii. Synchronize team goals and accomplishments
        iii. Discuss assignments
        iv. Discuss patient care goals
        v. Provide the opportunity to answer questions or concerns
        vi. Address accountability and responsibility
        vii. Address red flags - these should be reported immediately as they arise to the team leads

    c. A structured, cascading plan for huddles should be implemented. Examples of huddle architecture:
        i. Base huddle:
            a. Team members responsible for “placing orders” can pre-round followed by consultation with the physician team lead. Interprofessional rounding should include each team members’ patient assessment and possible changes for plan-of-care.
            b. Team members who are responsible for executing the physician/APP orders should pre-round, followed by consultation with the nurse lead.
        ii. Interprofessional Rounding: Include members of the medical team, the nursing/allied health teams, and pharmacy team if available. Rounds should include discussion of each members’ patient assessment, summary of the recommendations from the team leads, and expected changes in plan-of-care.
            - Follow-up consultation with the team leads may be needed as interpretation of patient needs changes after interprofessional rounding.

iii. Lead huddles: leads of each team should huddle together at least twice daily to share the status of their team and to assess the need for additional resources, including skill gaps.

2. **Team architectures** should be tailored to each unique setting and available skill sets. Each larger team should **consist of smaller medicine, nursing, pharmacy, and other allied health teams that collaborate to manage holistic care of the patient.** General Inpatient Team architecture examples include:

   a. Medicine Care Team:
      i. The physician team lead consists of one experienced Hospitalist, Family Medicine, or General Medicine trained physician who supervises those with less experience or have been out of general medicine care settings for many years.
      ii. The physician team lead can supervise multiple smaller physician and advanced practice provider (advance practice registered nurses and physician assistants) teams covering general medicine patients and coordinate with providers who usually do not provide general medical care.
         - Other senior physician team members are specialists serving patients on a specialty floor that is now accepting general inpatient cases, providers who have displaced from their specialty following COVID19 system level changes (i.e. surgeons), or family medicine providers flexing into the inpatient setting.
         - Residents, fellows, and interns will provide significant support to the workforce at hospitals with these physicians available. If present, they should be pre-rounding with patients and nurses, and actively following patients throughout each shift and reporting to their direct leaders.
            - Residents from general inpatient services can serve as “guides” for other residents farther out from general practice.
            - Residents serve as vital coordinators between nursing and medicine teams. They should update patients’ nurses with changes of plan in care.

      Example: Physician team members less experienced in general patient care can do the initial patient rounding and then consult the general medicine physician team lead regarding changes in patient status, advanced plan of care management, and seek further advice.

      iii. Nursing Care Team:
         a. The nursing team lead is an experienced acute care nurse, preferably certified in medical-surgical nursing, who coordinates execution of patient care skills among nurses and other flexing healthcare providers.
            - Other nurses are those who are less experienced in or are removed from providing general medical care in their typical practice make up the rest of the team.
            - These nurses will likely have to take on nearly full patient loads, depending on their overall experience. Consider implementing a “buddy-system” of nurses to adequately cover the total patient load and divide the physical space of the general medical hospital floors across broad skill sets.

      Example: Lead RNs serve as a resource for nursing teams throughout their shift and act as a liaison with the medical team. Leads can delegate specific tasks of patient care,

such as vital sign monitoring, low risk medication administration, documentation, and intravenous management, to team members with those skills, if local and state-level regulation permits. Advanced care management and recommendations can be completed in consultation with the lead RN.

iv. Pharmacy Team:
   a. Lead experienced general inpatient pharmacists can write protocols for drug replacement and administration.
      - Anticipating shortages of drugs commonly used to manage COVID-19+ patients including sedatives, paralytics, nebulized medications, and respiratory therapies that will affect availability in other cases.
   b. Other pharmacists, if available, can coordinate with medical teams to address specific patient concerns with consultation of the team lead.
   Pharmacy teams should look for our forthcoming "Pharmacy Playbook" for more information

v. Allied Health Professional Teams:
   a. The experience and expertise of other allied health professionals and specialists should be leveraged early and often to forecast post-acute care needs. As lockdowns restrict access to skilled nursing facilities and other post-acute settings, patients may need early evaluation and preparation for home-based care.
   b. Lead experienced allied health professionals should work closely with the leads of the other general inpatient teams to prioritize and execute the needs of patients, with the goal of a safe discharge.
      - Social workers can begin discharge planning by assessing social determinants of health and support in the home, involving home health or long-term care early if necessary, and connecting with the patient's primary care provider.
      - Physical and occupational therapists can prepare patients and families early for independent discharge to home when appropriate or evaluate for potential need for rehabilitation.
      - Other allied health providers and specialists, such as speech, diabetes educators, cardiac rehabilitation specialists, and wound care should be involved early to assist with discharge planning.

3. **Define roles for team members.** Team leads should work to prevent redundancies or gaps in task assignment.
   a. All staff should be active members of the team and practice at the top of their skill set for patient monitoring, care decisions within their skill set, and reporting changes to the team leads.
   b. Other staff should make clear their training/experience levels to the team lead so that they may be properly distributed into roles.
   c. Staff without general inpatient medical care training or who have not practiced in general medicine in the past 5 years should discuss their care role with the acute/general care team lead for each patient care team.
   d. Leadership and staff should recognize that the professional make-up of teams may fluctuate as patient care demands change and staff turns over.

4. **Assurance of team safety and resilience.**

a. Use existing psychiatrists, chaplains, therapists, and social work staff to help with counseling and support.
   i. Utilize Washington State Medical Association guidance for supporting staff.
   ii. Conduct a periodic, brief burnout assessment, to identify at-risk staff
      a. Develop a plan to cycle at-risk staff from the front line and communicate expectations for return to service.
      b. Burnout self-assessment tools
         - Burnout self-assessment
         - Well-Being in Academic Medicine: Resources for Faculty
         - Valid and Reliable Survey Instruments to Measure Burnout, Well-Being, and Other Work-Related Dimensions
         - Resource: 59 Mental Health Resources for Health Care Providers https://nursinglicensemap.com/resources/mental-health-resources/

b. Regular assessment of team coping skills should be scheduled with a plan for team debriefing.
   i. Establish an action plan for teams in crisis, e.g. how do team leads and team members elevate concerns and ask for help.
   ii. Prepare to execute team debriefings more frequently as cases, morbidity, death or other critical incidents escalate.
   iii. End of shift debriefing should occur before shift change. This will allow the team to review the day's events and recognize any changes that should occur prior to the next shift report.

II. Skills Re-Distribution and Training Resources:

In the event of a COVID-19+ patient surge, the workforce in general inpatient medicine may also need to surge to meet the overflow demand. Identify the skills needed for the patient population and inventory skills currently in the workforce. Identify gaps and provide training to fill those gaps when indicated. Changes in role and workflow may be needed to capitalize on existing skills and supervise any new team members.

This section identifies potential sources for workforce skills needed to meet the needs of the general inpatient medicine population, along with potential training resources.

All staff can benefit from the following training resources:

- UpToDate has a list of freely available clinical effectiveness resources on COVID-19.
- All staff caring for COVID-19 patients could also benefit from a review of Dynamed's open-source resource on COVID-19, the NIH COVID-19 Treatment Guidelines, and Week in Review COVID-19 Scientific News.
- The American Heart Association, with support of AACN and other organizations, released interim guidelines for basic life support, pediatric advanced life support and advanced cardiovascular life support to treat patients with COVID-19.

1. **Identify and train experienced general medical health care providers who can serve as team leads for the management of general medical patients.**
   a. Physicians and clinicians who currently practice in the general inpatient medical care setting and can lead a team of less experienced, alternate, flexing clinicians in the medical management of the patients.

b. Registered nurses, preferably certified, who can lead a team of nurses with minimal general medical patient experience, or alternate, flexing nurses.
c. Experienced pharmacists, preferably board certified, who can lead a team of other pharmacists to provide pharmacologic guidance and recommendations to the health care team, particularly if there is a depletion of commonly used drugs or in the setting of unfamiliar drug protocols.
d. Training should include self-studying concepts of teaming, leadership, and delegation (including accountability and responsibility concepts), as well as orientation to the hospital's incident command structure.

Self-Study Resources:

i. Society of General Internal Medicine-AMA Daily Team Huddle Overview
ii. Society of General Internal Medicine-AMA Guide on Conducting Team Meetings
iii. Society of Critical Care Medicine's Suggested Staffing and Delegation Model (Scroll to "Tiered Staffing Strategy for Pandemic")
iv. Academy of Medical-Surgical Nurses Structured Approach to Critical Staffing
v. NC Board of Nursing Delegation and Assignment of Nursing Activities
vi. NC Board of Nursing Decision Tree for Delegation to UAP
vii. Video: How to Turn a Group of Strangers into a Team (13 minutes)

2. **Identify and train alternate clinicians who can manage the medical care of general medical patients.** Consider physicians, advanced practice nurses (Clinical Nurse Specialists, and Hospitalist Nurse Practitioners), and physician assistants from both internal and external sources:
   a. Clinicians who have transitioned to full-time ambulatory settings but have been out of the hospital environment for less than 5 years.
   b. Clinicians in specialty care areas who completed a general medical residency prior to entering their specialty within the last 5 years (Cardiologists, Endocrinologists, Gastroenterologists, Hematologists/Oncologists, Nephrologists, Pulmonologists, etc.)
   c. Clinicians further out from training who are willing to take a general medical care refresher course
   d. Health care professionals licensed in another state, are retired, or have inactive licenses; persons who are skilled but not licensed; and students at an appropriately advanced stage of professional study. Consult the relevant professional health care licensure board for training requirements and reference relevant executive orders about license requirements.
   e. **Training** should include self-study of pertinent clinical topics in the general medical care setting.
      i. Clinicians should discuss their comfort level and skill set with the team lead critical care physician to determine which patients they are most prepared to manage.

      ii. Self-Study Resources:
         - Mereck Manuals for the Medical Professional and Merck Manual for procedures and exams (Reading-Based Refreshers). *Clinical Resource Topics:* Cardiovascular Disorders, Dermatologic Disorders Endocrine and metabolic Disorders, Gastrointestinal Disorders, Genitourinary Disorders, Geriatrics, Hematology and Oncology, Hepatic and Biliary Disorders, Neurologic Disorders, Psychiatric Disorders, and Pulmonary Disorders

- NC AHEC and UNC School of Medicine Basic Medicine Refresher Courses (Video based Refreshers). *Clinical Resource Topics:* Abdominal Pain, Alcohol Withdrawal, Altered Mental Status, Back Pain, Chest Pain (1 and 2), COPD, Heart Failure (1 and 2), Syncope, Headache, Hypertension, Inpatient Fever, Pancreatitis, DKA, Panic and Anxiety Disorders, Cellulitis, Dermatologic Emergencies and Infections. *Time to Complete: 10-15 minutes per video*

- Tufts Hospitalist Clinical Practice Guidelines for clinical care for educational purposes contains 11 documents outlining patient presentation, interventions, and recommended medications with dosing charts.

- Pocket reference cards (free to download as pdf):
  - Pulmonary Management Pocket Reference Card includes pulmonary management information, including: pulmonary assessment, blood gas analysis, ventilator settings and spontaneous breathing trial (free PDF download).
  - Commonly Used IV Cardiac Medications for Adults Pocket Reference Card includes vasoactive intravenous medications (free PDF download).
  - Cardiovascular Assessment Pocket Reference Card includes cardiovascular information, including: assessments, distinguishing between types of chest pain, evaluating for signs and symptoms of cardiovascular compromise, and more (free PDF download)
  - Dysrhythmia Recognition Pocket Reference Card includes dysrhythmia recognition information, including: steps for ECG rhythm analysis, risk factors for common dysrhythmias, waveform characteristics of common dysrhythmias and images of various dysrhythmias.
  - Hemodynamic Management Pocket Reference Card includes hemodynamic information, including: hemodynamic response, oxygenation, hemodynamic alterations in shock, and factors affecting heart rate, preload, afterload, and contractility.
  - A full list of Key Acute Care Adult Medications and Key Acute Care Pediatric Medications with indications and dosing

iii. Clinical decision support apps

- MDCalc medical calculator: Free online point of care decision support app including medical calculators, scoring systems, and algorithms. References complete. Available on Android and iOS. To access, download the application from the appropriate application store and make an account or access via web browser.

- pmidCALC: Free online decision support app including medical calculators, scoring systems, and algorithms. Also provides direct links to peer reviewed publications on PubMed explaining clinical decision-making tools.

- Calculate by QxMD: Free phone app and web based application that assists with clinical calculations and decision criteria. Read by QxMD provides streamlined collection of up to date literature in medicine. To access,

download the application from the appropriate application store and make an account or access via web browser.

- ARUP consult: Free, laboratory testing decision making tool. Provides evidence based guidance for choosing appropriate laboratory tests and interpretation of test results based on clinical evidence. To access, use a web browser to navigate to the linked website. No account is necessary.

3. **Identify and train alternative staff who can execute and monitor a plan of care for general medical care conditions.** Consider both external and internal staffing sources.
    a. Relevant diseases managed within general medicine during the COVID-19 pandemic
        i. Heart Failure
        ii. Diabetes
        iii. Hypertension
        iv. COPD
        v. Vomiting
        vi. Diarrhea
        vii. Urinary Tract Infections
        viii. Anxiety, Depression, and other mental health concerns
        ix. Headache/Migraine

    b. Relevant skills include the ability to assess, manage, and evaluate new onset of the following:
        i. Fever
        ii. Shortness of breath with consideration of pulmonary embolism
        iii. Chest pain
        iv. Hypotension

    c. Potential internal sources for staff who can flex to manage the plan of care of general inpatient medicine patients:
        i. Nurses in procedural areas (post- anesthesia care unit, cardiac catheterization lab, interventional radiology, electrophysiology lab, and operating room) who have had general medicine or acute care experience within the last 3 years.
        ii. Nurses in specialty care units (oncology, bone marrow transplant, surgical, labor and delivery, etc.).
        iii. Nurses in other settings (ambulatory, primary care, infusion, etc.) who have had general or acute care experience within the last 3 years.
        iv. Health care professionals licensed in another state, are retired, or have inactive licenses; persons who are skilled but not licensed; students at an appropriately advanced stage of professional study are potential sources. Consult the relevant professional health care licensure board for training requirements.

    d. Training should include self-study resources focused on advanced care skills, in addition to **at least one** 8-12 hour shift with a general or acute care team lead preceptor. Time with the preceptor should be increased depending on the team member's prior experience, level of comfort, and current needs of the unit.
        i. The precepted shift should focus on an inventory and validation of each team members' care skills, introduction to team-based care, and orientation to the unit and workflow.

ii. Self-study resources:

- UCSD's Practical Guide to Clinical Medicine: This site provides a comprehensive review of history taking and physical exam maneuvers (including vital signs) by body system. Each section is highly clinically relevant and provides a great refresher to previous training.

- Level up Nursing : Free, YouTube channel that has 50 videos highlighting critical concepts in medical or surgical nursing. Videos range from 5 to 10 minutes each.

- Nurse Labs study resources: Free, outline based study tools. Provides review information on nursing fundamentals, cheat sheets, diagnostic testing and laboratory testing summaries, procedural outlines, psychiatric nursing, and medical and surgical nursing outlines

- NC AHEC and UNC School of Medicine Basic Medicine Refresher Courses: (Video based Refreshers). *Clinical Resource Topics:* Abdominal Pain, Alcohol Withdrawal, Altered Mental Status, Back Pain, Chest Pain (1 and 2), COPD, Heart Failure (1 and 2), Syncope, Headache, Hypertension, Pancreatitis, Panic and Anxiety Disorders, Cellulitis, Dermatologic Emergencies and Infections. Time to Complete: 10-15 minutes each.

- Nurselabs Procedures and Skills : A collection of guides on how to perform common procedures including nasogastric intubation and tracheostomy care. *Time to Complete:* Varies

- The Academy of Medical-Surgical Nurses Pocket Reference : Slide deck for independent review. Topics include brief head to toe assessment, acute respiratory distress syndrome, cardiovascular, fluid and electrolytes, diabetes, care and assessment of the geriatric patient, altered cognition, and early warning sign system.

- Understanding Heart Failure :This training provides in depth information about the most important aspects of heart failure. Cost: $10 for CE credit (free to current subscribers). You may also select “Review Course Materials” on the right-hand side of the screen to access the course without payment but you will not receive credit. *Time to complete*: 1 hour

- Pocket reference cards referenced in Section II-2e

- Quick Guide to Basic Laboratory Values: Provides an overview of the most common labs that will be drawn on patients.

- Arterial Blood Gas Monitoring Pocket Guide: Reviews normal ranges and provides a step-wise procedure for monitoring and evaluating ABGs that need intervention.

- Hemodynamic Monitoring Pocket Guide: Defines terms, explains the cardiac cycle, and reviews clinical indications of hemodynamic stability.

- Decision making applications referenced in Section II-2e

4. **Identify and train alternative staff who can execute patient care skills to provide task-specific relief to the general medicine team.** Consider both internal and external sources.
    a. Relevant General Medical Care Skills:
        i. Physical Assessments
        ii. Low risk medication preparation and administration
        iii. Blood administration and monitoring
        iv. IV Maintenance and Central Line Care
        v. Oxygen set-up and delivery
        vi. Vital Sign Monitoring, including intake and output
        vii. Dressing changes and wound care
        viii. Nutrition Management, including NGT and OGT feeding
        ix. EHR Documentation: All healthcare facilities should provide standardized on-boarding EHR training for all staff to familiarize themselves with workflows and functionality. This training should be tailored to the specific EHR.
        x. Nebulizer Treatments
        xi. EKG monitoring

    b. Potential sources for staff who can execute fundamental patient care skills:
        i. Licensed nurses, including LPNs, from other settings with limited acute care experience or who have been out of the hospital setting for more than 3 years.
        ii. Health care professionals licensed in another state, are retired, or have inactive licenses; persons who are skilled but not licensed; and students at an appropriately advanced stage of professional study are potential sources. Consult the relevant professional health care licensure board for training requirements.
    c. Consider partnering with community practices for staff with additional patient care skills, such as private outpatient practices.
    d. Consider including unlicensed assistive personnel for basic patient care needs, skin care, and mobility. Training for these team members should include clear role delineation, the hospital's infection prevention and control, safe patient handling and movement, and pressure ulcer prevention resources, as well as orientation to the unit and workflow.
    e. Training should include self-study resources focused on basic critical care concepts, in addition to an 8-12 hour shift with a preceptor.
        i. This staff may best be used in a "buddy system" with staff who can execute and monitor a plan of care for general medical care conditions.
        ii. **Refer to relevant scope of practice rules and regulations**: Licensed Practical Nurse Law, NC Board of Nursing NAII tasks, and NC Board of Nursing NAII tasks.
        iii. The licensed nurse overseeing the plan of care maintains accountability and responsibility for the delivery of safe and competent care and must verify competency of any delegated tasks.
        iv. The precepted shift should include an inventory and validation of each team members' skills, introduction to team-based care, and orientation to the unit and workflow.

v. Self-Study Resources:

- Access Nursing Reference Center Plus (NRCP) until June 1, 2020 for videos and other skills. The left-hand column has links to over 300 skills with videos and competency checklists for each skill, management topics including information on precepting and time management, and 50 nursing care plans.

- Stanford 25 physical exam videos : Consider watching pulmonary videos (2), cardiac videos (7), and any other videos that seem relevant to your patient's symptoms. *Videos range between 3 and 10 minutes.*

- Blood Administration and Transfusion Reactions: This training provides high-level information about the most important aspects of blood administration and possible complications. Cost: $20 if you would like CME credit (free to current subscribers), you may also select "Review Course Materials" on the right-hand side of the screen to access the course without payment but you will not receive credit. *Time to complete*: 2 hours.

- Nurselabs cheat sheets : Provide quick information on a complete head to toe physical assessment, generic drug names, and IV fluids. *Time to complete:* varies

- NC BON Teaching Module for Nurse Aids: Provide short modules and competency checklists for oxygen therapy, sterile technique, wound care, suctioning, trach care, peripheral IV fluids, urinary catheters, G-tube feeding, elimination procedures, and fecal impaction.*Time to complete:* Varies

- Preventing and Managing Central Line Bloodstream Infections: Provides an overview on infection prevention strategies and signs of both local and bloodstream infections.

- Complications of Central Vascular Access Devices Pocket Card : Covers information on infiltration, extravasation, occlusion, infection, venous air embolism, catheter damage/rupture, and thrombosis.

- Ostomy Management Pocket Card : Includes information on each type of ostomy as well as pouch placement, pouch care, and complications.

- Pressure Injury Assessment and Management: Includes information on risk assessment, classification, and wound care.

- IV Fluid Administration Pocket Guide: Explains the different fluid products, administration basics, and their effects on patients.

- Top 10 Tips for Effective EHR Usage

- EHR Documentation Pocket Guide

- Medical Surgical Nursing Oxygen Delivery: A video overview of oxygen delivery methods, their benefits, and indications. Watch 0:00-3:30. *Time to Complete: ~3.5 minutes*

- Nebulized Medication Administration Basics: A video overview of setting up a nebulizing chamber and administration.*Time to Complete:* 19 minutes (Watch from 0:40-end)

- AAFP EKG Basics Overview: Slide deck to review at own pace covering EKG monitoring basics including rate, rhythm, axis. Slides 1-59 are most relevant and include many examples of abnormal EKGs. *Time to complete*: Variable

5. Provide a virtual infrastructure to deliver expert support to on-unit staff, such as telemedicine support, off-site assessment of social determinants of health, and virtual discharge planning. Consider:
    a. Telemedicine and telenursing consultation, particularly for community facilities with limited specialist support. Consider pairing with other hospitals in the region for a shared resource.
    b. Partnering with local health professional schools to engage students in virtually assessing social determinants of health for discharge planning and to connect patients and the health care team with families.
    c. Designating a responsible party to ensure that decision-makers and staff members have the most up-to-date information that they need to deliver safe, efficient, and effective care, as well as keep open and fluid communication with the local health department. Sign up for updates from NC DHHS, CMS, various other professional organizations who offer resources (see resources in previous sections), and the NC AHEC Program. Potential sources for staff include unlicensed assistive personnel, LPNs, RNs, health professions students, retired health professionals, activity professionals, staff in administration, current health care staff who are at high risk for COVID-19 complications (this role can be completed virtually in many case).

    d. Resources:
        i. SCCM discussion board about COVID-19: This discussion board provides a way for clinicians to communicate between institutions. Communication is not limited to topics specific to COVID-19 care.

        ii. Utilize additional established resources through the US Department of Health and Human Services Assistant Secretary of Preparedness Response (ASPR) Technical Resources, Assistance Center, and Information Exchange (TRACIE) at https://asprtracie.hhs.gov/.
            - Though focused on care of COVID positive patients, this resource also includes information for types of care that will be impacted by COVID-19+ patient surge.
            - The COVID-19 Heathcare Workforce Toolkit is a collection of various resources on federal regulatory funding flexibilities, workforce training, state/territorial/local resources, and an information exchange that can be accessed if you register.

iii. An optional patient triage support line is available from Community Care of NC if facilities need support triaging patients prior to arrival to the hospital.

iv. Communicating with patients and families:
- Virtual/Digital/Telehealth Patient and Family Engagement Overview
- Vital Talk COVID Ready Communication Playbook

v. Social determinants of health screening tool and instructions for use : 2-page questionnaire developed by the EveryOne Project and the American Academy of Family Physicians can be used to assess the social needs of each patient. The instructions for use (8 pages) provide guidance for how to administer and interpret the questionnaire. Free training and other screening tools on social determinants of health is offered by the American Medical Association.

vi. Local universities, colleges, and technical schools can implement a COVID-19 Student Service Corps as a means to connect students with the needs of health care workers and systems:
- UNC-Chapel Hill's Office of Interprofessional Education and Practice has an active NC based student service task force, the Carolina COVID-19 Student Services Coalition.

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