Peer Review File

Article information: https://dx.doi.org/10.21037/jhmhp-21-48

Reviewer Comments

Comment #1: How the capacity physicians were found and trained and what impact that had on their other roles. If they had cross departmental and hospital wide awareness, they are likely already in clinical leadership roles. What model created time for them to do this? what kind of training was done to ensure a shared mental model? was there variation in who was good at what?

Reply 1: We appreciate the Reviewer raising the important question asking for more background describing how providers at our hospital were on-boarded and integrated into the Capacity Physician role. The Capacity Physicians were selected based on several criteria that are described in the Methods under "Intervention", subsection "Qualifications". Capacity Physicians were required to have experience in operational leadership within the hospital, able to go beyond their clinical service as a hospital-wide representative, able to effectively communicate across services, coordinate in a collaborative fashion, and build trust with role groups and services throughout the institution. We have added additional language below to address the Reviewer's questions.

Methods, page 5

Qualifications. The Capacity Physician is a clinically trained individual who maintains an active clinical practice outside of his or her duties as Capacity Physician. The Capacity Physician must have experience in operational leadership within the hospital. When serving in the role, she/he is required to work without bias toward a specific care service or department. She/he must be able to communicate effectively across care services, understand how to coordinate in a collaborative fashion, and develop trust with different role groups and service areas throughout the institution.

Recruitment. The Capacity Physicians were recruited by the program (authors KS and PD) among the hospital's physicians with existing clinical-operational leadership roles. Those selected had existing roles within the Emergency Department, Inpatient General Medicine, Critical Care, and Procedural Services. Given the diversity of clinical-operational experience of this group, Capacity Physicians were encouraged to share operational knowledge across team members and use each other as resources when on-call. Time spent covering the Capacity Physician role was integrated within the existing administrative time that these individuals possessed within their schedules. The role was funded by the hospital and each clinical department to which the Capacity Physicians belonged.

Training. The leaders of the Capacity Physician program created a training manual to help orient Capacity Physicians to the role. The manual included: an overview of the scope, aims, and expectations of the role; a schedule of required capacity-related operational huddles occurring throughout the day, their aims, and the Capacity Physicians role; a list of common capacity-related challenges and potential levers to help resolve these issues; and a list of key contacts in various clinical and operational realms related to capacity. A monthly debrief meeting was implemented to review challenging cases and gather feedback to improve the role, which was used to expand and enrich the guidance manual.

Comment #2: Would provide some description as to why the clinical background was important. i think to clinicians it will be self evident that the role described involves some clinical judgement on urgency, stability, prioritization etc but consider explicitly stating that for others - since a clinician in this role is likely much more expensive than alternative disciplines.

Reply 2: We appreciate the Reviewer's point that explaining why an individual with clinical background was necessary given that such a role can be expensive. We have added language to the "Qualifications" section of the Methods to address this.

Methods, Page 5

Qualifications. The Capacity Physician is a clinically trained individual who maintains an active clinical practice outside of his or her duties as Capacity Physician. The Capacity Physician must have experience in operational leadership within the hospital. When serving in the role, she/he is required to work without bias toward a specific care service or department. She/he must be able to communicate effectively across care services, understand how to coordinate in a collaborative fashion, and develop trust with different role groups and service areas throughout the institution. Clinical background was deemed necessary for the role given that many capacity operations decisions involve clinical triage, prioritizations, weighing different clinical options and pathways, and communicating, guiding, and sometimes negotiating with clinician decision-makers throughout the hospital (especially attending physicians).

Comment #3: It doesn't appear that this article was a response to COVID - but many sites describe a similar role developed to handle the strain of COVID. Consider stating that in a sentence or two but also stating why you think this has benefit during "blue skies" and not just during crisis.

Reply #3: The Reviewer is correct that the Capacity Physician role at our hospital pre-dated COVID, though was instrumental to our operational work during COVID as well. We have added language to the paper introduction and discussion noting the importance of the role for our institution relative to non-COVID and COVID operations.

Introduction, pages 2

As demand continues to grow, medical centers are under pressure to increase operational efficiency and facilitate timely access to beds. The Joint Commission, for example, requires hospitals to develop strategies that address the consequences of hospital crowding.[18-19] The urgency of developing strategies to address hospital crowding has grown due to the COVID-19 pandemic. The pandemic has created prolonged periods of severe strain on hospital capacity throughout the country, exacerbating pre-existing capacity challenges.

Discussion, pages 11-12

After the study period, the Capacity Physician continued to evolve within the institution. The role, which was established approximately six month prior to the pandemic, was a critical part of the hospital's COVID-19 response. The hospital experienced a severe wave of COVID admissions during the Spring 2020 with numerous surge ICUs opened and general care units repurposed for COVID care. The Capacity Physicians attended daily Hospital Incident Commands System meetings and were asked to help guide units on patient flow in collaboration with other leading clinical-operational roles throughout the hospital. This was especially important because the clinical triage guidelines of the hospital evolved rapidly and substantially during this period. Services admitted COVID and other diagnoses that they historically did not manage. In addition, the types of critical care patients that the surge ICUs could admit were limited and the traditional ICUs were required to expand and sometimes contract the typical populations that they would admit. The Capacity Physician played an important role in helping ICU staff navigate these changes. The role also helped to administer inpatient transfer criteria for COVID patients throughout the pandemic, ensuring that those brought to our quaternary care center were appropriate given that hospital capacity was so limited and needed to carefully manage its precious beds to ensure availability for the sickest patients in the region, (eg, COVID requiring extra corporeal membrane oxygenation (ECMO).

Comment #4: small typo on line 30 of page 2 "increased longer LOS"

Reply #4: We have edited the paper by deleting "increased".

Introduction

In addition, waiting times in the Emergency Department (ED) for admission have been associated with ~~increased~~ longer length of stay (LOS) and mortality.[4-15]