The Covid-19 pandemic and the associated surge of critically ill patients have required emergent redeployment of clinicians to new roles and/or locations throughout health care systems. Given these rapid shifts and strong clinical demands, the need for effective and rapid onboarding for physicians to their new clinical roles is imperative, especially given that these roles often differ significantly from their current roles in terms of clinical duties, intensity of care, and even geography. Utilizing qualitative methods, we interviewed frontline physicians about their redeployment experiences and thematically constructed a model for conducting a rapid but comprehensive onboarding process. We then confirmed the face validity of this framework by interviewing a different subset of frontline clinicians. In the present article, we describe our process of constructing this onboarding framework and propose an implementation guide for health systems seeking to transition clinicians into new roles quickly and effectively.

The Problem

The Covid-19 pandemic and the associated surge of critically ill patients have required emergent reassignment of clinicians to new roles and/or locations throughout health care systems across the world.\(^1\)\(^2\) The most complex, costly, and important of these efforts has been the redeployment of nurses, advanced practice providers, and physicians across clinical specialties, inpatient care settings, health care systems, and even geography. These redeployed clinicians require rapid, effective, and safe onboarding to their new clinical roles.

Previous work on physician onboarding has revealed highly variable and non-standardized processes. In the study by Lagoo et al., physicians reported missed opportunities to communicate key logistical information and to facilitate needed relationships, leading to a perceived risk to
patient safety, especially during emergencies. Furthermore, Pradarelli et al. noted that the responsibility for onboarding is often diffused across a system, resulting in the failure to convey common practices and organizational values that would promote improved integration into the local culture. Finally, current onboarding programs are focused on non-crisis situations, have not been developed to respond to the complexities of onboarding clinicians into new settings outside their traditional scope of practice, and do not address how to accomplish clinician integration in mere days to weeks.

Recognizing this problem, we sought (1) to determine the highest-priority onboarding needs of rapidly redeployed clinicians to ensure that they can provide optimal clinical care and (2) to create a framework that leaders and frontline clinicians can use together to address those needs both rapidly and comprehensively. As SARS-CoV-2 continues to spread, there will be an ongoing need for redeployment of health care workers to meet the clinical demand. Utilizing the lessons learned for successful onboarding from health care organizations that have been through a surge, future systems can more effectively and rapidly onboard new individuals and teams.

Five Identified Needs for Rapid Onboarding

Nine physicians, all of whom had recently been rapidly onboarded for Covid-19 redeployment, were recruited via convenience sampling and were remotely interviewed with use of a semi-structured interview guide between April and May 2020 (Tables 1 and 2). Through thematic analysis of the interviews, we identified five common onboarding needs among the redeployed physicians and two specific actions that were instrumental for meeting these needs.

Need #1: I Need Help Learning the Practical Logistics of My New Role and/or Environment

Physicians expressed feeling overwhelmed with learning the logistics of practicing in a new unit and the new rules that accompany Covid-19 care, such as those related to personal protective equipment (PPE) and social distancing. The electronic medical record (EMR) system and the sign-out process were cited as particularly difficult to learn rapidly. The information required for such tasks was not always clear to redeployees; as noted by one physician, “it might have been in the long list of emails, but that [information] is difficult to extract.”

| Variable                  | No. of Interviewees (N = 9) |
|---------------------------|-----------------------------|
| Gender identity           |                             |
| Female                    | 5                           |
| Male                      | 4                           |
| Years of clinical practice|                             |
| 1-9                       | 4                           |
| 10-19                     | 3                           |
| ≥20                       | 2                           |
| Usual practice setting    |                             |
| Community-based           | 4                           |
| Academic                  | 5                           |

Source: The Authors, Ariadne Labs.
Need #2: I Need to Learn the Best Practices for My Patient Population and Stay Up to Date with Changing Standards of Care

Clinical information related to Covid-19 was disseminated through living documents that included updated information, virtual training, and virtual question-and-answer sessions. However, the focus on Covid-19-specific education neglected training on the basics of internal medicine, which was particularly problematic for redeployed pediatricians, one of whom noted that “most of the patients had chronic kidney disease, hypertension, other things that are total bread and butter for internal medicine. It probably didn’t cross their mind to train us on that.” Those who received training in advanced cardiovascular life support and ventilator management described it as being of limited utility. All interviewees received training in donning and doffing of PPE, which was identified as crucial; this training was particularly helpful when it included repetitive, observed practice. Order sets tailored to treating Covid-19 patients helped to offset the cognitive burden of treating a novel disease.

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Need #3: I Need to Know My Team and Understand Their Roles

Physicians had to understand their new team, including its communication practices, roles, hierarchy, and overall dynamic. One physician stated that “As I traveled from [ambulatory] clinic to clinic, I noticed that everyone’s roles were slightly different. Unless you know what someone who is doing the check-in does, or what [a medical assistant] does, or what a provider does, you can’t function to the highest level of your ability, and some things can fall through the cracks.” Physicians also had to understand their own role on the team and how their responsibilities differed from their...
usual clinical role. Many physicians were able to develop relationships and camaraderie with their teams during redeployment, with one explaining that, “Before all of this happened, we were really disconnected. Our hospitalists were just names I saw on a discharge summary. Now I know them face to face…it has been very positive.”

**Need #4: I Need to Know Who I Can Turn to For Support**

Redeployed physicians relied on support from their colleagues during the onboarding process through phone calls and virtual meetings. Many depended on the “elbow support” (i.e., real-time answers) that they received from core teams of physicians and advanced practice providers who were familiar with the clinical care and the unit. Such individuals “communicated that there would be another team there that you could turn around and ask questions, and that was probably the most reassuring thing, knowing that we wouldn’t be in a room not knowing how to enter an order or do a discharge.” Visibility and responsive support from leadership was vital, as numerous interviewees expressed their need for a clear chain of command and expeditious responses to novel problems on a daily basis.

**Need #5: I Need to Take Care of Myself and My Family**

Fear, anxiety, uncertainty, and high levels of stress were pervasive during onboarding. Fear was specifically mentioned in relation to (1) unintentionally harming patients as the result of a lack of skill or knowledge in the new role, (2) personally contracting Covid-19, and (3) infecting one’s family. In addition to the stress, many had a hard time taking care of basic physical needs while providing clinical care, including finding safe places and times to eat and drink without a mask and where to access food and drinks: “I would get so dehydrated, I was so fatigued, I didn’t expect that; I was like an intern and exhausted by the end of the day.” Other sources of tension included managing their regular clinical practice, balancing childcare responsibilities, dealing with unpredictable schedules, and having no clear timeline for the redeployment.

**Two Methods for Meeting the Needs: Shadowing and Feedback**

Two specific actions were mentioned by virtually all interviewees as methods for quickly meeting the needs expressed above. First, shadowing was described by most physicians as being essential to the onboarding process. It provided an effective method to learn logistics, team culture, and basic clinical processes in a short amount of time. It also provided reassurance and eased anxiety: “If I had known that I would be paired up with a [another] physician, I would have been a lot less nervous. I was nervous that I would be a fish out of water. We are perfectionists and are used to doing things really well. Fear of making mistakes is extremely anxiety-producing.” The time spent shadowing varied from a few hours to two days, and the format varied. Some shadowing was coordinated and mandatory, whereas some was informal and available only to those who requested it. Second, channels for feedback were critical for addressing needs and improving the onboarding process in real time, with the process being tailored according to variations in clinician experience, leadership engagement, and timing in relation to the local Covid-19 surge. Feedback on the onboarding process was most effective when it was bidirectional, with clear communication between leadership and front-line clinicians: “The key leaders need to take the time to understand
and communicate to the providers being redeployed...It sounds simple in hindsight, but it just took a lot of regular communication.” Having a team or leader who was responsible for soliciting feedback and implementing changes systemized the process and allowed clinicians to feel acknowledged and supported.

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**Development of the Toolkit**

These identified needs and actions drove the creation of the framework, with each need as a pillar and the cross-cutting actions as the base (Figure 1). Clinician discussion questions were created to accompany the framework by reformatting the needs as questions for clinicians to ask in order to confirm their readiness for redeployment (Appendix).
In order to assess face validity and feasibility, the initial draft of the rapid onboarding framework and clinician discussion questions were reviewed with 11 physicians and 1 nurse practitioner who had not been previously interviewed. These 12 clinicians were interviewed with use of a standard interview guide, with a focus on clarity, utility, feasibility, implementation, and the identification of any missing elements.

All 12 interviewed clinicians agreed that the rapid onboarding framework and clinician discussion questions would have been helpful during their onboarding process: “having a structured framework for rapid training will be extremely helpful...this can streamline [the onboarding process] and make it systematic.” Multiple interviewees expressed the sentiment that “you don’t know what you don’t know” and felt that the clinician discussion questions would give them insight into what preparation they needed for the redeployment. Minor changes to the clinician discussion questions were made in response to feedback. A leader implementation guide was developed by the research team on the basis of implementation best practices and insights from all of the completed interviews (Appendix). A complete onboarding toolkit was then created from the framework, clinician discussion questions, and a leader implementation guide.
All 12 interviewed clinicians agreed that the rapid onboarding framework and clinician discussion questions would have been helpful during their onboarding process: “having a structured framework for rapid training will be extremely helpful...this can streamline [the onboarding process] and make it systematic.”

Using the Toolkit

The rapid onboarding toolkit (framework, leader implementation guide, and clinician discussion questions) is best suited for health systems seeking a model to rapidly onboard redeployed clinicians. Both health system leadership and local unit/floor leadership should consider following the stepwise approach of the leader implementation guide as they construct an onboarding process. Use of the toolkit ensures that no essential elements are omitted during the resource-constrained circumstances of rapid onboarding. The clinician discussion questions can be utilized during and after the process to assess ongoing areas of need. Adaptation to the local context of the health systems and floor/unit will be required.

Future Opportunities

This toolkit provides guidance on developing and implementing a rapid onboarding process for redeployed physicians. It expands on previous work that has demonstrated that the onboarding of physicians to new health care settings typically is heterogeneous and insufficiently detailed. Rather than considering rapid onboarding as being different from the typical clinical onboarding process, health care leaders may view it as a leaner, distilled version of the same process. By focusing on an extreme use case for onboarding, we have been able to identify its most critical elements. These findings serve as a basis for developing improved onboarding practices that are focused on the needs for information and connection that every clinician has in any new role or setting. As we learn more about how hospitals redeploy and onboard clinicians, this toolkit can evolve to include those lessons. This work also can be customized to include other health care workers, in both routine and crisis situations, and can be adapted to meet local needs.

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As SARS-CoV-2 continues to spread, health care leaders will face a recurring need for redeployments and onboarding of providers to meet the frontline clinical demand. Future surges of critically ill patients in the setting of updated knowledge and treatment protocols will require health
care systems to again redeploy and onboard their health care workforce. This article provides guidance to create an intentional and structured onboarding process based on the expressed needs of front-line clinicians. Utilizing the lessons learned for successful rapid onboarding will allow leaders to more rapidly and effectively deploy new teams to future hotspots. Devoting time to the development and improvement of a rapid onboarding process can benefit patients and clinicians; as one redeployed physician stated, “redeployment can happen rapidly... to do it right will lead to better outcomes.”

**Appendix**

**Clinician Discussion Questions**

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