



COVID-19 has profoundly changed the ambulatory space and the point of care ecosystem. It has challenged healthcare organizations and providers to think differently about delivering healthcare experiences that are both effective and safe. The pandemic also put a spotlight on how important it is to share new ideas, create new workflows and develop new technologies to help meet existing and new challenges.

This Midmark white paper takes a look at some of the challenges confronting the point of care and how a clinical design approach can be a positive force for transforming and strengthening the healthcare experience for both providers and patients.

A Holistic Clinical Design Approach

Attention to design has never been more important as healthcare systems, practices and providers look for empathetic approaches that bring together workflows and technologies to support increased efficiency and safety, as well as improved outcomes.

In today's patient-focused, value-based care environment, design has evolved into a strategic component of the point of care ecosystem. At the heart of this design-led approach is the understanding that better care starts with a better-designed experience.

A holistic design approach is the foundation of enhanced healthcare experiences, improved clinical outcomes, and increased operational efficiencies. It must incorporate and equally elevate three main components:

1. Facility design where the configuration of the exam rooms and the layout of the equipment inside those rooms positively impacts the effectiveness and safety of the clinical space. Consideration given to ergonomics and mobility issues ensures a more safe and comfortable experience for patients and caregivers.



- 2. Workflow design that moves beyond the typical linear design of care environments to focus on the patient in an effort to create a better care experience. A more patient-centered workflow design allows better management and limiting of unnecessary patient interactions and movement throughout the facility.
- 3. Technology/equipment design that is specifically suited for clinical environments to increase the level of efficiency, flexibility, safety and comfort. Equipment that can withstand the rigors of daily use and even strike the right balance of clinical functionality and comfort. Technology, that when integrated into the environment, does not negatively impact the patient-provider interaction.

Overcoming Challenges Through a Holistic Design Approach

While COVID-19 introduced a new set of challenges, some of which have dissipated as the severity of the pandemic has decreased, many of the same challenges that previously confronted the ambulatory space remain. In most cases, COVID-19 served as a catalyst, intensifying or accelerating existing challenges and adding new dimensions to them. Many of these challenges can be overcome with the help of elements of a holistic clinical design approach.

Following are five such challenges that existed before COVID-19—and are still very much front and center in the ambulatory care environment.

1. Expanding the point of care ecosystem

While clinical encounters have traditionally occurred in an exam room setting where caregivers meet with patients in person, that practice is being challenged. Advanced technology and the shift to create a more accessible, patient-centered experience continue to drive the need to expand the point of care outside of the traditional model.



With access to care impeded by valid concerns of infection spread among caregiver teams and at-risk patients, healthcare organizations took a renewed look at patient-caregiver interactions. They urgently took steps to maintain the delivery of care while keeping patients and staff safe from viral contagion exposure risk.

As a result, telehealth was widely adopted and became a viable and long-lasting option for physician practices and clinics. Moving forward, face-to-face and virtual visits must be considered to be seamless partners in cohesive patient care, with each acting synergistically to facilitate the other.

From a design standpoint, there are two elements that can help ensure a seamless integration of telehealth at the point of care. The first is employing mobile workstations designed to be easily adjusted and customized to support virtual care. The second is to reconfigure or redesign the exam space to establish a workflow where virtual visits can be effectively conducted.

(For more information on mobile workstations, see the Midmark white paper "Mobile Workstations: Expand and Evolve the Point of Care Ecosystem.")

2. Integrating new technologies

As technology advances and patients demand to be more directly involved with their healthcare decision-making process, there is a growing need for connected technology and devices within the ambulatory care environment. However, it can be challenging to integrate the technology seamlessly to ensure the intimate and humanistic aspects involved in care delivery are maintained.

The introduction of electronic medical records (EMR) is an example of what happens when it is not. Many patients and physicians viewed EMR as an intrusion to the exam room experience. Much of this was because the EMR screen became a barrier to the interaction, with the physician spending a lot of time staring at the screen and the patient staring at the back of the physician or laptop.

Giving deliberate thought to exactly how new technology is supported and integrated into the exam room at the point of care helps ensure the valuable time shared between the caregiver and patient remains at the highest priority during the patient journey.

As the EMR example shows, new technology can be highly disruptive to the patient-caregiver interaction. Changes may need to be made to how the equipment is placed or configured in the room so the technology does not become the focus over the patient. Mobile carts or workstations that can be adjusted ensures eyecontact can be maintained as much as possible during data entry and allows the technology to be moved when no longer needed.



3. Gaining operational efficiencies

As the healthcare journey becomes more connected, it is paving the way for the digitization of the point of care ecosystem. This in turn promises to bring more accurate and in-depth operational data that can be gathered, analyzed and used to transform the ambulatory space and gain efficiencies.

Of course, just having more data at the point of care is not enough. It must be accurate, relevant and actionable. Too often, the data available at the point of care is either flawed or not utilized effectively. It can be easy to become overwhelmed with the amount of data available.



Real-time locating system (RTLS) technology makes capturing accurate workflow data possible, communicating in-the-moment patient and staff locations, wait times and staff interactions, as well as a vast amount of retrospective detail.

The data captured by RTLS technology can be used to make informed decisions at every step of the patient visit. It can provide greater visibility to existing workflows and processes, exposing opportunities for improvement and helping transform the traditional outpatient care environment into a highly efficient and patient-centric care area.

4. Creating safe, inviting environments

The pandemic brought a new urgency to infection prevention, serving as a reminder to healthcare professionals that a strong infection prevention program is important to keep patients and staff safe. It also highlighted a direct and distinctive link to infection prevention initiatives at the point of care experience.

Even as more of the population gets vaccinated and the risk of exposure diminishes, many patients may still express anxiety and hesitation about scheduling routine exams and doctor visits for fear of exposure to COVID-19 or some other virus or contagion. Patients want assurances that necessary precautions are being taken to ensure visits are safe and the quality of care delivered is not negatively impacted.

One way to offer this assurance is to implement patient-centered workflow designs that allow caregivers to better manage and limit patient interactions and movement throughout the facility, reducing the potential for exposure or transmission.

One example of this is the collaborative care model that consolidates the visit as much as possible, allowing patients to remain in one place while ancillary services are brought to them. Another example is the self-rooming model that eliminates the waiting room. It can also include the dual-access model, which separates caregivers and patients by providing dedicated corridors to a dual-entry exam room.



(For more information on infection prevention, see the Midmark white paper "Infection Prevention: Taking a Holistic Approach to Protect Patients and Staff at the Point of Care".)

5. Addressing caregiver fatigue

Physician and caregiver fatigue and burnout was a growing problem before COVID-19. Many caregivers would routinely go home with back pain, aching neck or sore muscles and joints caused by long hours working in uncomfortable positions utilizing poor ergonomics.

The emotional, physical and mental exhaustion put upon healthcare professionals by the pandemic has made the situation even worse. Not only is this harmful to the caregivers, but it can also have a significant impact on the patient/provider interaction, which is at the heart of the point of care experience.

Equipment and exam room design/layout decisions based on ergonomic principles can help create a more comfortable and efficient environment for caregivers. For instance, fully adjustable exam chairs give caregivers unobstructed access to patients during exams, eliminating the need for overreach and awkward postures.

The COVID-19 pandemic has served as a catalyst for change in ambulatory care, transforming the point of care and how care is delivered. As a result, we are seeing providers and healthcare organizations place more emphasis on initiatives, solutions and technologies.

Taking a holistic, clinical design approach to overcoming some of the biggest challenges facing the point of care can help drive continued improvements for the healthcare experience and the quality of care delivered to patients.



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