



The healthcare industry is currently undergoing significant change brought on by new legislation, advancements in technology, changing patient demographics and industry shortages. As these forces continue to impact today's dermatology practices, increased focus is being placed on new approaches to the dermatology room, centered entirely on the patient.

This rethinking of the dermatology space, including layout, furniture and equipment, is helping dermatologists take a renewed look at patient-caregiver interaction and the delivery of efficient patient care for improved outcomes and patient satisfaction.

This white paper is designed to help dermatologists see the benefits of a patient-centered approach to their clinical space (primarily procedure rooms) by identifying key elements of design that can improve workflows and the patient-caregiver experience.

# Redefining the Dermatology Space

A number of factors are driving the evolution of the healthcare industry with an acute focus on dermatology. These factors include:

**Healthcare Legislation.** There are currently two pieces of government legislation impacting the entire healthcare industry, including dermatology. Signed into law in 2010, the Affordable Care Act (ACA) was designed to make more healthcare choices available and enhance the quality of healthcare for more Americans. In early 2016, the federal government announced that the ACA had resulted in an estimated 20 million people gaining health insurance coverage.<sup>1</sup>

Signed into law in 2015, the Medicare Access and CHIP Reauthorization Act (MACRA) introduced new policies for paying physicians caring for Medicare beneficiaries. The act places greater emphasis on the quality and value of the care provided by rewarding physicians through a Merit-Based Incentive Payment System (MIPS) that makes payment adjustments based on the quality, cost and other measures related to care. MACRA also established advanced alternate payment models (Advanced APMS) that exempt a physician from MIPS and provide a lump sum payment instead. The program started in 2017, with the first year being a transition year to help physicians.

**Changing Patient Demographics.** According to a 2015 study from the Centers for Disease Control and Prevention (CDC), one out of every four adults in the United States has a disability.<sup>2</sup> The percentage of older adults is also increasing. The 2010 Census found that between 2000 and 2010, the population 65 years old and over increased at a faster rate (15.1 percent) than the total US population (9.7 percent).<sup>3</sup> Obesity continues to be a factor as well. Between 2011 and 2014, the prevalence of obesity was just over 36 percent in adults and 17 percent in youth.<sup>4</sup>

For many of these people, a visit to the dermatologist's office can be stressful and filled with accessibility issues that may impact the quality of care received. Patients may fail to receive equal care because of accessibility issues, and an older population also means an increased focus on geriatric dermatology and more skin care services.

**Shortage of Dermatologists.** The increase in the number of insured patients, along with the changing demographics, is expected to put more strain on the pool of current dermatologists. In many parts of the country, dermatologists are already in short supply. As of 2014, there were 13,847 dermatologists practicing across the country. Between 2010 and 2014 there had only been about a 10 percent increase.<sup>4</sup> Most industry experts expect this trend to continue and agree that this is not enough dermatologists to keep up with growing demand.

According to a 2015 study, dermatologists are among the specialties with a relatively high EMR adoption rate, at 63 percent.<sup>5</sup> As many dermatologists know from first-hand experience, EMRs can improve caregiver decisions and patient outcomes. However, as many dermatologists also know, EMRs can present a significant challenge in terms of integrating technology into healthcare environments not initially designed to incorporate technology and IT hardware. This can often result in a negative impact on existing paper-based workflows and, therefore, lessen the efficiency of care.

In order to meet the evolving needs presented by these factors, companies such as Midmark are rethinking the concept of the dermatology space with a patient-centered approach. Patient-centered design focuses on the point of care and the patient by integrating technology with examination, consultation and treatment activities (see Figure 1). This seamless, holistic system is designed to enhance workflows and the patient-caregiver relationship.

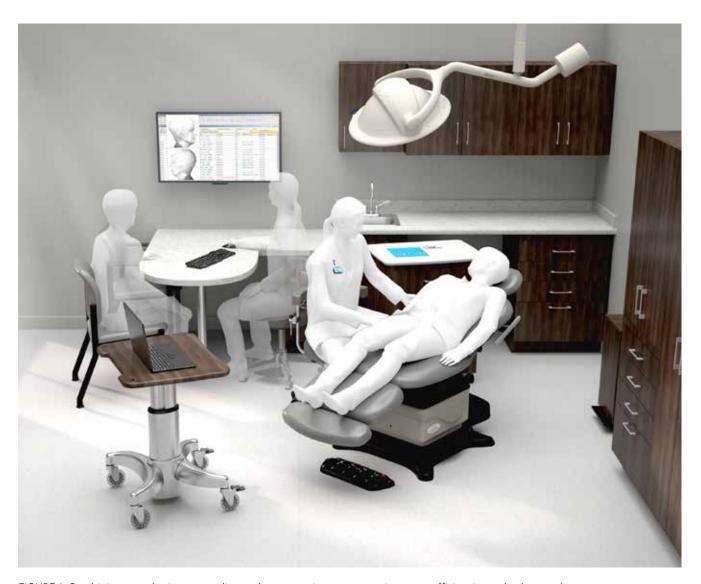


FIGURE 1. Combining consultation, counseling and treatment into one space increases efficiencies and enhances the patient-caregiver relationship.

# Benefits of Patient-Centered Design

The benefits of implementing a patient-centered design approach in the dermatology room can vary, depending on the facility, but the approach is just as important for patients as it is for physicians and staff. Following are a number of potential benefits dermatologists can realize when applying this design approach.

## **EFFICIENCY**

Optimizations for efficiency can vary depending on the existing practice, as well as the technologies and workflows already in use. One example of a design change to improve efficiency in the dermatology room is to consider how digital data is used in the space, whether through EMR, diagnostic devices or support tools. The use of mobile workstations to create a flexible workspace inside the patient care zone and can make significant advances in patient engagement. Think about digital data as a consumable essential in the delivery of care, like a sterile glove or a bandage. How can space design enable delivery of the right information at the right place and the right time?

The use of mobile or wall-mounted workstations can also bring the device (desktop, laptop or tablet) within arm's reach, decreasing the caregiver's need to move within the space and maximizing engagement with the patient (see Figure 2). All necessary data is accessible at the point of care and can be shared at the provider's discretion. Patients can be seated on a low-height procedure chair throughout the entire visit. There are no delays in transferring the patient from other areas in the room. Digital and physical care interfaces are within the same work zone, and the movement of the care provider is minimized as constant contact with the patient is maintained.

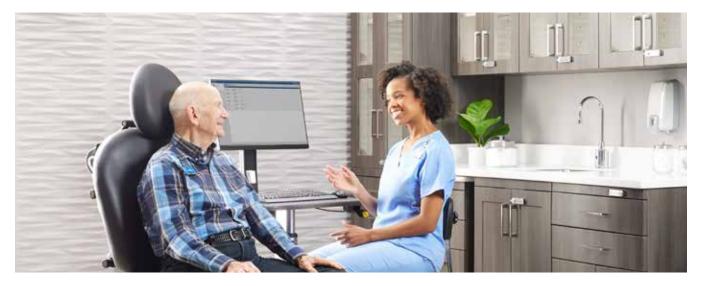


FIGURE 2. Workstations bring data accessibility to the point of care and help maximize engagement with the patient.

#### **SAFETY**

It is essential that both patients and staff feel safe and confident throughout the experience. If a patient does not feel completely safe and comfortable at every touchpoint during the visit, they can become anxious and tense, resulting in an unsatisfactory visit, inaccurate diagnostic data and potentially poor care outcomes.

As the average age of patients continues to rise, it is more likely that patients will need assistance in accessing a procedure chair. In many facilities, the burden falls on staff to lift or assist the patient, which can present a high potential for injury to one or both of the parties involved. Height-adjustable procedure chairs enable patients to sit or transfer onto the chair with minimal to no assistance from staff.

## **ACCESSIBILITY**

Providing equal access to healthcare for patients with mobility or communication limitations is an increasingly important issue for health systems.

The "same access of healthcare" can refer to a number of design considerations, including the following examples:

- 1. A fully accessible facility design that can be navigated easily by everyone. For instance, a "universal design" approach in public spaces can help provide healthcare for everyone, whether patients are fully ambulatory or face limited mobility. Keep in mind these are healthcare facilities, not retail businesses. Inaccessible spaces, even if grandfathered from a code standpoint, will have health ramifications for your patients.
- 2. Inclusive appointment policies and exam procedures that provide for all types of physical and communication needs.
- 3. Exam rooms designed with a "mixed use" approach that manages both consultative and clinical paths without the need to segregate patients during check-in. While this lean approach allows for a higher utilization of spaces and resources, it should be considered based on your practice needs. Some healthcare facilities separate consultative visits from clinical visits with two care paths. Depending on patient demographics and the type of care provided, this approach may present challenges during execution. For that reason, it is important you speak with an industry expert, such as a Midmark representative, before embarking on this approach.

- 4. Equipment such as low-height procedure chairs to accommodate those who may or may not use mobility devices (see Figure 3).
- 5. Staff trained to understand and respond with sensitivity to people with different types of disabilities, including less visible impairments such as deafness, cognitive impairments and depression.



FIGURE 3. Accessible procedure chairs can increase patient comfort, protect patient dignity and help ensure physicians conduct a more thorough and accurate exam.

# Elements of Patient-Centered Design

To fully embrace a patient-centered design approach in a dermatology environment, it is important to first consider key elements within the clinical space.

### PROCEDURE ROOMS

A significant component of the patient-centered design approach is the reengineering of the procedure room to integrate consultation, counseling and treatment all within a seamlessly efficient atmosphere.

This new view is helping dermatologists keep patient-caregiver interaction top-of-mind and think about the delivery of care in a brand new way. Since this is the area where patients and dermatologists spend most of their time, it makes sense that this is where patient-centered design can have the greatest impact.

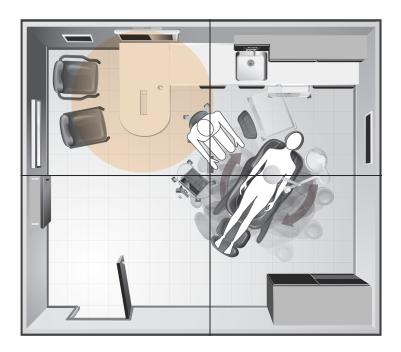
The size of the room needs to be large enough to comfortably accommodate the patient, physician and staff, and allow exams and procedures to be properly performed. The recommended size for dermatology rooms is approximately 12 ft. x 14 ft. to ensure a 60-inch diameter area to accommodate wheelchair turnaround for disabled patients, as recommended in the guidelines of the Americans with Disabilities Act (ADA).

The door to the room should be reverse-hinged to increase patient privacy. If a staff member enters the room to assist the physician, the patient will not be exposed to other patients in the corridor. Larger rooms will also accommodate newer equipment, such as lasers, and will allow for versatility down the road if new in-office procedures or additional equipment and/or technology are needed.

For many procedures, the work of the physician and staff can be concentrated around the head section of the chair or even the foot and midsection, so access around the entire chair is critical. To facilitate this level of access, the procedure chair should be positioned either in the middle of the room or at an angle and as much as possible in a neutral position, allowing the physician and staff to work at the head end of the chair without too much overreaching or twisting of the torso. Adequate room space will mean that the physician can easily move about while seated on a stool, minimizing any strain that might be caused by continually sitting and standing during an exam or procedure.

The consultation and family/visitor zone (see Figure 4) should be designed around the idea of shared communication between the caregiver, patient and family member. The zone can be created through an extended work surface as support for a large interactive display panel that can be shared between caregiver and patient. A large interactive screen makes information readily accessible, creating a more intimate dialogue between patient and caregiver and bringing needed educational information into the procedure room. The walls surrounding the family/visitor zone can mount displays for additional presentation needs.

FIGURE 4. The consultation zone of the dermatology procedure room is designed around communication between the patient and caregiver.



#### PROCEDURE CHAIRS

The primary focal point of the dermatology office is the procedure chair, as it is the place where caregivers truly deliver care to patients. Today's procedure chair is a mix between a clinical device and various design elements of a chair (i.e., low height and comfortable seated area); it is the patient positioning device. Examinations and procedures require clinical positioning capabilities, something that is not offered in a simple recliner or chair. The ideal procedure chair is one that provides a level of adjustability that allows the dermatologist to optimize the position of the patient—creating options that would not be possible with a typical exam table.

In many ways, the procedure chair is also evolving into a clinical hub where diagnostics, patient engagement and treatment intersect. Results can be gathered within and seamlessly transferred to the EMR. The right procedure chair can increase the level of efficiency, comfort and safety, resulting in better workflows for your facility.

With the average age of patients on the rise, it is more likely that more patients will need assistance accessing a procedure chair. Many facilities still require staff members to lift or assist the patient. This sort of patient/staff interaction often results in emotional and physical discomfort to one or both of those involved. Accessible chairs with adjustable height can reduce the risk of distress and injury to patients who may have difficulty in accessing a fixed-height procedure chair. Therefore, it is important that an accessible chair be a central fixture of any patient-centered design.

To provide the right access and comfort, the chair needs to be able to lower to a height of 17 to 19 inches so patients are able to access it with little or no assistance whenever possible. This can increase patient comfort, protect patient dignity and ensure physicians conduct a more thorough and accurate exam, improving the overall patient experience. In certain situations, rotation built into the chair can be considered, as it allows the caregiver to move the patient to the treatment areas instead of requiring the devices or physician to move.

# **MOBILE WORKSTATIONS**

As the practice of dermatology evolves, technology will continue to play a larger role in the dermatology room and in how caregivers interact with patients. Without proper planning and the right equipment, integration of technologies such as EMRs and tablets could negatively impact the overall efficiency of the care process. Mobile workstations designed to improve patient-caregiver interaction enable organizations to easily bring digital information to the point of care without sacrificing workflow.

Midmark® Workstations provide 26" of vertical height adjustment to accommodate the ergonomic height requirements of 95% of users in the clinical setting as well as tilt and rotation to help users maintain a proper working position without sacrificing eye contact with the patient.

### **CABINETRY**

Cabinetry designed specifically for medical environments is often more durable and will not break down under medical use, unlike common wood cabinetry. While cabinetry does have aesthetic value to patients and staff and enhances the practice brand, it also can be tied closely to patient-centered design.

For instance, a pull-out writing surface at an approximate height of 30 inches would allow paperwork needed during a patient visit to be readily and conveniently accessed. And positioning the sink in the corner maintains an open countertop surface closer to the working environment and isolates any splashing to eliminate potential slippery spots on the floor. Another important area on the cabinetry is the kick area of the base cabinet. This should be high enough to allow the legs of the stool to slide under the edge of the base cabinet while the user's foot is positioned on the base.



FIGURE 5. The type of cabinetry and its location within the dermatology room can impact a patient-centered design.

### PHYSICIAN STOOL

For dermatologists, the ideal stool should feature a contoured seat that molds to the shape of the body and provides maximum comfort and support for the buttocks, feet and torso. It should also feature a strong base structure that offers stability and minimizes the chances of tipping.

The stool should be easily adjustable and maneuverable to allow dermatologists to find the most comfortable working height and effortlessly interface with the patient. The adjustable height will allow dermatologists to maintain neutral postures, keep shoulders relaxed and the head balanced and looking essentially straight ahead, while minimizing overreaching and sustained bending and twisting.

# **LIGHTING**

It is important to have the right medical lighting in the exam/procedure room. The combination of an ideal color temperature and ample brightness ensures dermatologists are able to correctly assess tissue color variances during procedures. It is also important that the lighting have a large pattern size with an even distribution of light throughout that eliminates shadows. This means less interruption when an inadvertent head or hand moves in front of the light. The lighting should be counterbalanced to provide precise positioning without drifting and without any undue spring or frictional force that would cause the user to overly push or pull in order to position the light. Thus, it should be easy to maneuver, eliminating any strain on physicians.

LED technology offers reduced operating costs as it is more energy efficient than its halogen predecessor and does not require periodic bulb replacement. Another advantage of LED lighting is that it is safe and cool to the touch.

#### STAFF AWARENESS + TRAINING

Another key component of patient-centered design is ensuring staff members are aware of this focus and properly trained. OSHA recommends that healthcare practices establish a training program designed and implemented by qualified persons to provide continual ergonomics education and training. This training can also be an appropriate time to integrate training on patient-centered design.

Training programs provide a great opportunity to reinforce the importance of focusing on the needs of the patients to ensure a high quality of care. Staff should be trained to understand and respond with respect to people with different types of disabilities and those who are mobility impaired. Medical staff should be properly trained on how to safely assist or maneuver patients with disabilities.

<sup>&</sup>lt;sup>1</sup> Uberoi, Namrata; Finegold, Kenneth; Gee, Emily. Health Insurance Coverage and the Affordable Care Act, 2010-2016. ASPE Office of Health Policy, 2016.

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<sup>&</sup>lt;sup>3</sup> United States Census Bureau. "The Older Population: 2010." census.gov. Nov. 2011. Web. 4 Nov. 2016.

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<sup>&</sup>lt;sup>5</sup> Market Profile of U.S. Dermatologists. Bedminster: Cegedim Relationship Management, 2015.



As the dermatology industry looks to the future, there is much to consider in facility design, access, control, comfort, workflow and the patient-caregiver relationship. Growth and change are inevitable, and healthcare environments must be flexible to adapt to the integration of new technologies, patient demographics and healthcare protocols. Now is the time to rethink and redefine workflow, moving toward the adoption of a patient-centered design approach. By designing the dermatology space around the patient, dermatologists can significantly enhance efficiency, effectiveness, safety, comfort and quality of care.



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