midmark®

MEDICAL

Design for the Point of Care

Everything Connected at the Point of Care

Before beginning a construction project, you'd be sure to have a detailed plan. Building a connected point of care ecosystem is no different. Clinical design is a strategic component, helping healthcare organizations place well-being and satisfaction at the same level of importance as clinical outcomes, patient satisfaction, efficiency and profitability. At Midmark we harmonize space, technology and workflow to **transform the healthcare experience for everyone.**

Join us.

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8 Design Considerations for a Better Healthcare Experience

CLINICAL PROCESS IMPROVEMENT

Today's healthcare organizations must find ways to create more value for patients with fewer resources. To do this, they must rethink the entire patient experience. We can help.

AUTOMATED VITAL SIGNS

Vital signs measurements are an important factor in diagnosis and treatment. However, variables in the vital signs workflow can have a significant impact on costs, outcomes and the perceived quality of care.

SINGLE PANE OF GLASS

Connect equipment and devices at the point of care and operate them all from one single pane of glass—the computer screen—to improve efficiency and simplify the process with fewer clicks.

AMERICANS WITH DISABILITIES

Accessibility in healthcare facilities is essential to providing a safer environment and equivalent medical care to all patients and staff. What do you need to know?

BETTER BLOOD PRESSURE (BP)

Blood pressure measurements are an important factor in point of care diagnosis, patient risk stratification and medication dosing. That's why it's so important BP measurements be as accurate as possible.

REAL-TIME LOCATING SYSTEM (RTLS)

RTLS technology can help optimize patient flow in the moment while also providing accurate operational data to identify and correct bottlenecks that create costly waste—an important step in designing and maintaining better care environments.

INFECTION PREVENTION

The pandemic has brought a new urgency to infection prevention in non-acute environments. Let's focus on infection prevention starting with the right equipment and clinical design.

EMR CONNECTIVITY

Fully connected equipment and devices at the point of care can save time, provide more accurate measurements and reduce the risk of manual transcription errors.

See how these design considerations are being applied in the clinical space.

Clinical Process Improvement

Amidst the current challenges facing the US healthcare market, there is a pressing need for organizations to adapt to the evolving landscape. Many healthcare facilities find themselves trying to cope with inadequate staffing and resources while struggling to meet the growing demand for patient care. In this environment, it becomes crucial for healthcare organizations to deliver enhanced value to patients—achieving accurate diagnoses and facilitating easier treatment/care plans—despite resource constraints.

The Quintuple Aim has provided a framework with focus placed on improving patient outcomes and the patient/provider experience while reducing cost and waste. However, it is easy to under appreciate the foundational work that goes into improving the **point of care ecosystem.** This is where the focus on clinical process improvement becomes paramount.

The strategic alignment of workflow, clinical equipment and technology plays a pivotal role in elevating patient care, improving clinical outcomes, and addressing the financial implications for healthcare providers.

1. **Overprocessing**
   Save 69 seconds per patient with automated vital signs and weight capture from the exam chair.[1]
2. **Waiting**
   Patients spend 68% of their visit waiting on average.[2] Patient self-rooming can eliminate the waiting room.
3. **Medical Errors**
   Seamless EMR connectivity saves time and reduces the likelihood of errors.
4. **Defects**
   Clinical equipment can assist in adherence to clinical standards.
5. **Motion**
   Mobile supply storage reduces the need to move away from the patient.

[1,2] See inside back cover for details and sources

Designing for Accessibility

Since the inception of the Americans with Disabilities Act (ADA), accessibility has become a legal requirement. But more importantly, accessible design is instrumental in providing better care to all patients regardless of disability or other limitations. However, state regulations concerning spatial relationships in the clinical space can override Federal ADA regulations. As these lines become blurred, it can be confusing for healthcare systems to understand how to best provide accessibility and equal care.

Key Factors Impacting Spatial Layout in the Exam Space

Although these considerations are not all-encompassing, it is a good place to begin when considering accessible design in the clinical space.

- Size of the room
- Types of procedures conducted in the space
- Type of equipment used in the room
- State in which the room is built
- Types of mobility devices being used by patients or staff
- Increasing patient throughput
- Preventing burnout and staff turnover
- Locating equipment for care and maintenance

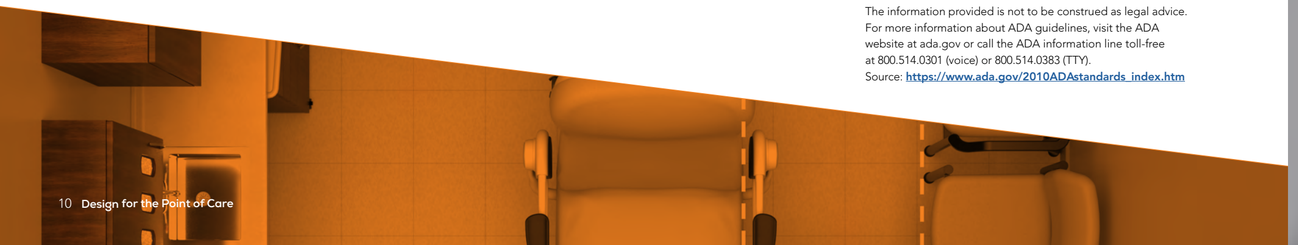
1. **Accessible Equipment**
   The US Access Board recommends an accessible exam chair with a seat height of 17"- 19". Considerations should also be made for side chairs.

2. **Clear Floor Space**
   30"x 48" of clear floor space is required on one side of the exam chair for entry, exit, transfer or a portable lift device. An 18"x 60" clearance is required at a recessed door.

3. **Turning Radius**
   ADA guidelines require a turning area using a clear space of 60" in diameter for wheelchairs and scooters.

4. **Door Access**
   A 32" clear door opening is required to accommodate today's larger wheelchairs and scooters.

The information provided is not to be construed as legal advice. For more information about ADA guidelines, visit the ADA website at ada.gov or call the ADA information line toll-free at 800.514.0301 (voice) or 800.514.0383 (TTY).
Source: https://www.ada.gov/2010ADAstandards_index.htm



Infection Prevention

With the ongoing migration of procedures from inpatient healthcare settings to outpatient settings, the need for infection prevention continues to remain urgent in non-acute environments. You may already understand the need for effective sterilization to reduce risk—but infection prevention is more than sterilization and it begins before you ever touch an instrument.

Balancing **infection prevention compliance** with operational challenges can be difficult. You can begin by choosing a strategic facility and equipment design that supports standardized clinical workflow—workflows that are easily reproducible by staff make it easier to manage the process and ensure adherence to clinical best practices and compliance guidelines.

1. **Waiting**
   Self-rooming workflows allow patients to skip the waiting room and avoid exposure to contagions.
2. **Inventory**
   Clearly communicate room inventory/turnover status.
3. **Overprocessing**
   Automatically identify who was exposed to a potential contagion and for how long with automated contact tracing.
4. **Transportation**
   Exam chairs designed with medical-grade materials and features such as a retractable roller base can simplify cleaning and disinfecting.
5. **Defects**
   Wall-mounted cabinetry with seamless panels and drawers, antimicrobial surfaces for high touchpoint areas, covered glides and steel-on-steel construction can simplify cleaning.

Automated Vital Signs

Introducing automation at the point of care can enhance standardization. A connected, automated vital signs device leverages technology to improve efficiency and minimize the effects human variables can have on consistency and data accuracy. Vital signs are the beginning of the patient-caregiver interaction, playing a significant role in treatment decisions. While the process has not changed significantly over the years, devices and the technology behind them have—and for good reason.

1. **Standardized Workflow**
   Automated vital signs capture promotes clinical standardization by facilitating adherence to best practices for vital signs acquisition, procedures and disease care. It enhances clinical data management among care team members.

2. **Time Savings**
   The average time from the waiting room through vital signs acquisition to the time the patient is ready to see the physician is 5 minutes, 7 seconds. Using an automated vital signs device can save 30 seconds during vital signs capture, while moving vital signs and weight into the exam room can save another 22 seconds by reducing conveyance time.[1]

3. **Error Reduction**
   Studies have shown that manual transcription of vital signs data produces a 17% rate of error on average.[3] Assuming you take 6 vital signs on 20 patients a day, that can result in approximately 20 errors a day relating to vital signs capture. Seamless connectivity to the patient record reduces the risk of transcription errors.

4. **Clinical Outcomes**
   An automated vital signs device decreases risk incurred by human errors, which may contribute to inaccurate diagnoses. It also sets the stage for appropriate diagnoses and care planning based on consistent and accurate vital signs acquisition.

5. **Healthcare Experience**
   Automating vital signs optimizes time spent on patient needs by the entire team, instills confidence in clinical data accuracy at the point of care, and provides access to data for patient education and treatment discussion. Automated vital signs strengthen disease management through confidence in data accuracy.

[1,3] See inside back cover for details and sources

Improving Patient Health Better BP

Heart (or cardiovascular) disease stands as the foremost cause of death in the US.[4] Hypertension, a notable precursor to heart disease, contributes significantly to this alarming statistic, with one out of every two adults in America having high blood pressure (BP).[5] Emerging evidence shows that how BP is measured can play a pivotal role in addressing this health concern.

High systolic BP is a leading modifiable risk factor for death worldwide.[6] In fact, recent research shows that proper patient positioning alone (during BP capture) can lower resting BP measurements by 7 mmHg systolic and 4.5 mmHg diastolic.[7]

That's why, Midmark designed the first and only fully integrated point of care ecosystem that has been clinically validated to achieve improved accuracy for a resting BP.

1. **A low-height exam chair helps keep the patient's back supported with feet flat on the floor**
2. **An articulating arm rail supports the patient's arm with cuff at heart height**
3. **Automated vital signs promote consistency and data accuracy**
4. **EMR connectivity improves workflow efficiency and reduces errors**

Scan or click to explore the latest study reporting the cumulative effect of poor positioning that occurs when BP is taken with the patient sitting on a typical clinical exam room table.

[4, 5, 6, 7] See inside back cover for details and sources

EMR Connectivity

Integrating medical devices with an electronic medical record (EMR) system can significantly improve the efficiency, accuracy and quality of healthcare delivery, benefiting both caregivers and patients. This single pane of glass experience for caregivers can present several benefits:

1. **Streamlined Workflow**
   Integration with the EMR allows caregivers to access and update patient data seamlessly, reducing the need for manual data entry. This streamlines workflow and saves time, enabling caregivers to focus more on patient care.

2. **Real-Time Data Access**
   Caregivers can access real-time patient data directly from the medical device, ensuring that they have the most up-to-date information at their fingertips. This can contribute to better-informed decision-making.

3. **Improved Accuracy**
   Direct integration minimizes the risk of data entry errors that can occur when manually transcribing information from a medical device to the EMR. This promotes accuracy in patient records and reduces the chances of mistakes in treatment plans.

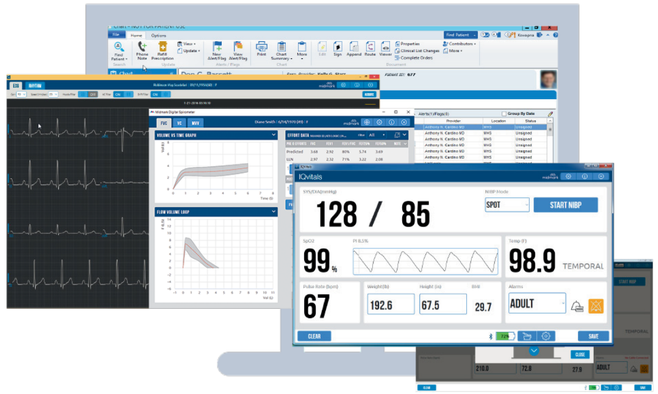
4. **Efficient Documentation**
   Automated data transfer between the medical device and the EMR can reduce the time and effort required for documentation. This allows caregivers to spend more time with patients and less time on administrative tasks.

5. **Regulatory Compliance**
   Integration can help ensure that the documentation and data collected by the medical device are automatically recorded in the EMR, aiding in compliance with regulatory standards and requirements.

Midmark Connectivity Framework is a scalable integration framework designed to seamlessly connect Midmark diagnostic solutions with EMR/EHR systems or IQmanager® software. For a list of our current EMR/EHR partners, information pertaining to device and software compatibility, or to begin the partner registration process, visit: **midmark.com/EMR**

Single Pane of Glass

A single pane of glass experience (in the context of healthcare and medical devices) refers to a unified and consolidated interface that allows caregivers to access and manage various aspects of patient care through a single system for a more efficient, user-friendly and integrated approach to managing patient care.



Benefits of a Streamlined Experience:

1. **Comprehensive Patient Overview**
   A single pane of glass interface provides caregivers with a comprehensive view of a patient's health information, including data from the medical device. This holistic view supports more thorough patient assessments and facilitates coordinated care.

2. **Reduced Cognitive Load**
   Caregivers can access all relevant patient information, including data from the connected medical device, in a single view. This reduces the cognitive load on caregivers who no longer need to navigate multiple systems or interfaces to gather essential information.

3. **Faster Decision-Making**
   The consolidated view provided by a single pane of glass enables quicker decision-making. Caregivers can assess patient data from the medical device alongside other relevant information, leading to more timely interventions and treatment adjustments.

4. **Efficient Task Management**
   Caregivers can perform tasks such as documentation and communication from a centralized interface. This efficiency in task management is particularly valuable in busy healthcare environments where time is often a critical factor.

5. **Seamless Information Flow**
   A unified interface ensures that data from the medical device seamlessly integrates with the broader patient record in the EMR. This promotes a more cohesive and accurate representation of the patient's health status.

6. **Improved User Experience**
   Caregivers benefit from a more user-friendly experience with a single, cohesive interface. Training requirements may be reduced, and the overall user experience is enhanced, contributing to increased user satisfaction.

7. **Enhanced Collaboration**
   A unified platform facilitates better collaboration among healthcare providers. Caregivers from different specialties or departments can access the same patient data, promoting a more coordinated and collaborative approach to patient care.

8. **Accessibility and Mobility**
   A single pane of glass experience can be designed to be accessible from various devices, including tablets or mobile devices. This mobility allows caregivers to access patient information and make decisions on the go, improving responsiveness.

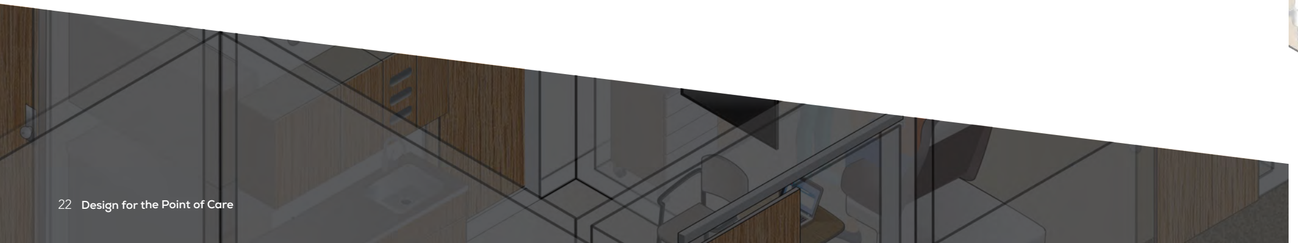
Real-Time Locating System

What if you could have a birds-eye view of colleagues, patients and equipment in your practice in real time? A real-time locating system (RTLS) allows health systems to do just that. Using badges (worn by people), tags (affixed to equipment), sensors (placed in the ceiling throughout the facility) as well as sophisticated software, an RTLS gathers location data and turns it into actionable insights to improve workflow and the delivery of care in outpatient and acute settings.

By utilizing RTLS, health systems can make significant gains in efficiency and provide better care.

1. **Locate equipment at a glance**
   Find carts, ECG machines and other mobile equipment you use every day quickly and efficiently.
2. **Reduce wait time for patient satisfaction**
   See patient status in real time to provide a prompt patient experience or eliminate the waiting room with self-rooming.
3. **Maximize capacity**
   Know the status of each room and its usage patterns to help provide care to more patients.
4. **Improve workflow**
   Collect operational data in the background to make data-driven process improvements for workflow efficiency.

Learn more about the Midmark CareFlow™ RTLS Patient Flow solution.



Vital Signs Workflows

Traditional

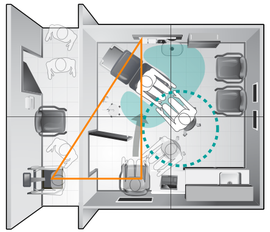
Triage Nook

Basic In-Room

Connected In-Room

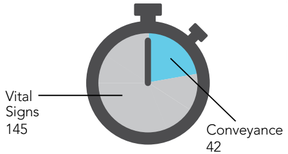
Traditional Vital Signs Workflow

The traditional vital signs workflow is a common setup for family practices or physician offices. Patient weight and height are captured manually while leading the patient to the exam room, which can cause delays with patient flow in the hallway. Pulse, temperature and blood pressure are taken manually inside the exam room.



TRADITIONAL VITAL SIGNS

After weight and height are measured in the hallway, the patient is escorted to the exam room and directed to a side chair or the exam table. If the blood pressure cuff is manual and not attached to the wall, the patient is seated on a table or in a side chair next to the work surface for paper-based patient records.



TIME SAVINGS

The traditional workflow requires an average of 187 seconds from the time the patient is called through vital signs acquisition.

1

VITAL SIGNS

Vital signs measurements are captured in multiple locations manually, requiring 187 seconds per patient.

2

CLINICAL PROCESS IMPROVEMENT

Weight is captured outside of the exam space causing privacy concerns and bottlenecks.

3

SINGLE PANE OF GLASS

Disconnected devices require manual entry of patient data.

4

INFECTION PREVENTION

Lack of patient self-rooming as well as capturing vital signs and weight in multiple locations increases the risk of exposure to contagions. Lack of RTLS makes contact tracing a tedious manual process. The exam table cannot be easily moved for cleaning and disinfecting.

5

REAL-TIME LOCATING SYSTEM

Lack of visibility to real-time operations or patient self-rooming workflow inhibits waste reduction efforts.

6

AMERICANS WITH DISABILITIES

Inaccessible exam table poses patient and staff safety risks.

7

BLOOD PRESSURE

The non-adjustable exam table does not support proper patient positioning for accurate BP measurements.

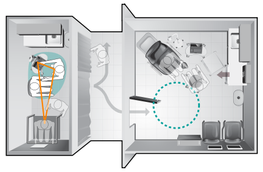
8

EMR CONNECTIVITY

Disconnected equipment operates autonomously, increasing the likelihood of human error.

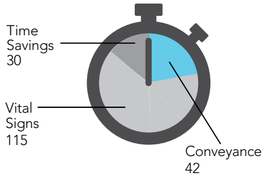
Triage Nook
Vital Signs Workflow

The triage nook is a semi-private space designed to assess and capture vital signs. A curtain provides visual privacy, however patient health should not be discussed in this space due to privacy concerns. The nook may include a scale and automated blood pressure and pulse device. Optional equipment can include a wheelchair scale, a sink for proper hygiene and storage for supplies.



TRIAGE NOOK

All vital signs measurements can be taken in the triage nook. Patients are then escorted to the exam room and directed to a side chair or exam chair for capturing additional health data. Increased patient flow can lead to queuing in the hallway, and family members accompanying patients may also create congestion. There may be a single station or multiple triage nook stations supporting multiple exam rooms.



TIME SAVINGS

The triage nook workflow, when compared with the traditional, saves 30 seconds per patient by implementing automated vital signs acquisition.

1

CLINICAL PROCESS IMPROVEMENT

All vital signs measurements are captured in one location using an automated device. Weight is also captured in the same location.

2

REAL-TIME LOCATING SYSTEM

Use of RTLS for a patient flow optimization and self-rooming can reduce waste and eliminate bottlenecks.

3

BLOOD PRESSURE

The side chair supports the patient's back and allows most patients to place their feet flat on the floor.

4

VITAL SIGNS

Compared to the traditional vital signs workflow, the triage nook workflow saves 30 seconds per patient.

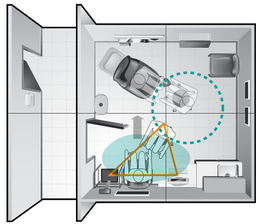
5

INFECTION PREVENTION

Use of a self-rooming workflow as well as capturing all vital sign measurements and weight in one location reduces exposure to contagions. RTLS automates contact tracing so you can automatically identify who was exposed to a potential contagion and for how long.

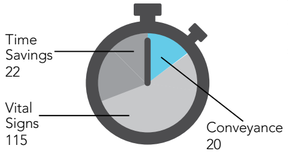
Basic In-Room Vital Signs Workflow

The basic in-room workflow is set up to assess and capture all vital signs in the exam room and can include a scale as well as an automated blood pressure and pulse device. The patient is directed to a side chair to support proper posture. Depending on the design of the exam room, the patient is seated next to a work surface or workstation that has a computer and/or an automated vital signs device.



BASIC IN-ROOM VITAL SIGNS

Upon entering the exam room, weight and height are captured. The patient is then seated in a side chair to support proper posture next to a work surface or workstation to gather patient vital signs and health information. All patient-related health information can be discussed during this process.



TIME SAVINGS

The basic in-room workflow, when compared with the triage nook, saves 22 seconds in conveyance time by moving all vital signs capture to the exam room.

1

CLINICAL PROCESS IMPROVEMENT

As compared to the triage nook workflow, you save 22 seconds in conveyance time per patient.

2

VITAL SIGNS

Save close to a minute per patient simply by bringing all vital signs acquisition to the point of care including weight and using an automated device.

3

REAL-TIME LOCATING SYSTEM

Use of RTLS for a patient flow optimization and self-rooming can reduce waste and eliminate bottlenecks.

4

BLOOD PRESSURE

The side chair allows close to 50% (according to BIFMA standards) of patients to place their feet flat on the floor with their back supported.

5

AMERICANS WITH DISABILITIES

The height-adjustable exam chair decreases the need for manually lifting and repositioning patients.

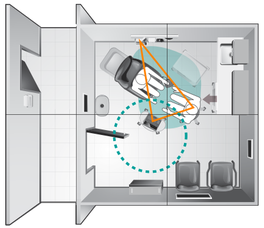
6

INFECTION PREVENTION

Use of a self-rooming workflow as well as capturing all vital signs and weight in one location reduces exposure to contagions. RTLS automates contact tracing. The exam chair with a retractable roller base can be easily moved for cleaning and disinfecting.

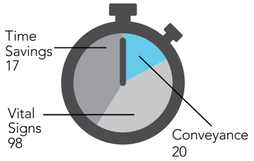
Connected In-Room Vital Signs Workflow

While a patient's position during blood pressure measurement may seem insignificant, variations in positioning and technique can lead to fluctuations of 5 to 15 mmHg in systolic blood pressure.[8] Reviews suggest that even a difference of 5 mmHg can affect close to 16% of patients, either inadvertently placing them on medication or missing a diagnosis of hypertension.[9] This workflow illustrates how a fully integrated point of care ecosystem can help standardize and promote proper blood pressure capture as well as improve the efficiency and accuracy of other vital signs acquisition.



CONNECTED IN-ROOM VITAL SIGNS

The patient is directed to the exam chair to support proper posture for blood pressure measurement. Weight, temperature, pulse and blood pressure are captured via an integrated scale in the exam chair and a connected, automated vital signs device. All patient-related health information can be discussed during the process while the patient sits on the exam chair. All vital signs data can then be imported directly into the EMR, saving time and eliminating manual transcription errors.



TIME SAVINGS

The connected in-room vital signs workflow, when compared with the basic in-room workflow, saves 17 seconds by taking weight, temperature, pulse and blood pressure while the patient is seated on the exam chair.

1

EMR CONNECTIVITY

The automated vital signs device and exam chair with built-in scale is fully connected and integrated with the EMR.

2

VITAL SIGNS

Save over a minute per patient by bringing all vital signs acquisition to the point of care including weight and using an automated device.

3

BETTER BLOOD PRESSURE

The height-adjustable exam chair is designed to support proper positioning of the patient for blood pressure measurement.

[8, 9, 10] See inside back cover for details and sources

4

AMERICANS WITH DISABILITIES

The height-adjustable exam chair decreases the need for manually lifting and repositioning patients.

5

INFECTION PREVENTION

Use of a self-rooming workflow as well as capturing all vital signs and weight in one location reduces exposure to contagions. RTLS automates contact tracing. The exam chair with a retractable roller base and medical-grade cabinetry can be easily cleaned and disinfected.

6

REAL-TIME LOCATING SYSTEM

Use of RTLS for a patient flow optimization and self-rooming can reduce waste and eliminate bottlenecks.

7

SINGLE PANE OF GLASS

Connected equipment and devices are operated from the computer screen.

8

CLINICAL PROCESS IMPROVEMENT

Saving a minute per patient equates to 5% of a medical assistant's time which can cost $1,440 per year in wasted time for each medical assistant.[10]

Exam Room Workflows

Traditional Exam

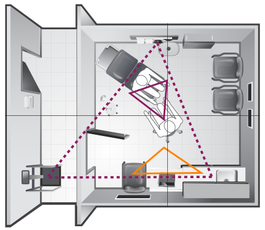
Dual Access

Continuous Care

Dedicated Zones

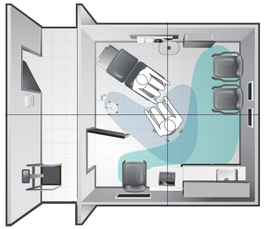
Traditional Exam Workflow

This traditional exam workflow illustrates how exam rooms have been set up for decades and highlights some areas of concern that can pose challenges to a health system when trying to improve the patient experience and outcomes.



TRADITIONAL WORKFLOW

Bringing the computer into the exam space enables the caregiver to remain in the room to retrieve information. Uninterrupted time with the patient is increased while the overall exam time is decreased. However, the computer should be positioned to allow patient access and ensure the caregiver and patient maintain eye contact.



PUBLIC/PRIVATE ZONES

The public zone includes side chairs to seat family/visitors as well as a dressing nook for patients. The private (or patient care) zone provides space for the initial patient interview including equipment, supplies and a work surface at the point of care. Overlap of these zones can lead to inefficiencies in the exam room workflow.

1

EMR CONNECTIVITY

Disconnected devices require manual entry of patient data.

2

VITAL SIGNS

Vital signs measurements are captured in multiple locations manually.

3

AMERICANS WITH DISABILITIES

Inaccessible exam table poses patient and staff safety risks.

4

INFECTION PREVENTION

Lack of patient self-rooming as well as capturing vital signs and weight in multiple locations increases the risk of exposure to contagions. Lack of RTLS makes contact tracing a tedious manual process. The exam table cannot be easily moved for cleaning and disinfecting.

5

BLOOD PRESSURE

The non-adjustable exam table does not support proper patient positioning for accurate BP measurements.

6

REAL-TIME LOCATING SYSTEM

Lack of visibility to real-time operations or patient self-rooming workflow inhibits waste reduction efforts.

7

CLINICAL PROCESS IMPROVEMENT

Weight is captured outside of the exam space causing privacy concerns and bottlenecks.

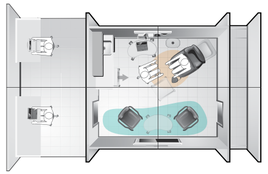
8

SINGLE PANE OF GLASS

Disconnected equipment operates autonomously, increasing the likelihood of human error.

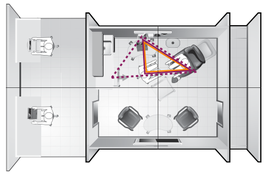
Dual Access Workflow

The culture in today's healthcare delivery systems is shifting to a lean, integrated care model to help improve collaboration between healthcare providers, medical technicians, schedulers and the patient. The use of two sliding doors in this dual access room design improves workflow by providing separate flow paths for the patient and provider while eliminating obstacles that could inhibit the integration of new technologies.



CONSULTATION ZONE

The consultation zone is easily accessible from both entrances and includes seating and a mobile work surface to exchange information. A display is incorporated to view patient-related information and educational information. The display is large enough to view patient information during the care exchange. A separate care team work area is free of patient interruption.



EFFICIENT CARE ZONE

With the patient seated on a barrier-free exam chair throughout the visit, there is no delay due to transfer or repositioning. All critical care elements are in close proximity, reducing the need to move away from the patient. A mobile supply cart can be retrieved from the adjacent cabinet to provide an additional work surface to organize instruments and supplies.

1

VITAL SIGNS

All vital signs measurements are captured at the point of care including weight using an automated device.

2

EMR CONNECTIVITY

The automated vital signs device is fully connected and integrated with the EMR.

3

SINGLE PANE OF GLASS

Connected equipment and devices are operated from the computer screen.

4

INFECTION PREVENTION

Use of a self-rooming workflow as well as capturing all vital signs and weight in one location reduces exposure to contagions. RTLS automates contact tracing. The exam chair with a retractable roller base and mobile treatment cabinet can be easily moved for cleaning and disinfecting. Separate entrances and exits for staff and patients help reduce cross-contamination.

5

REAL-TIME LOCATING SYSTEM

Use of RTLS for a patient flow optimization and self-rooming can reduce waste and eliminate bottlenecks.

6

BETTER BLOOD PRESSURE

The 626 exam chair with Patient Support Rails+ can be positioned to properly support the patient's feet, back and arm.

7

CLINICAL PROCESS IMPROVEMENT

An exam chair with an integrated scale streamlines workflow and frees up space.

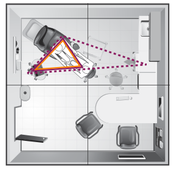
8

AMERICANS WITH DISABILITIES

The height-adjustable exam chair decreases the need for manually lifting and repositioning patients.

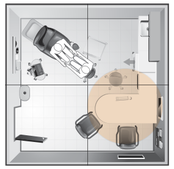
Continuous Care Workflow

Effective patient care extends far beyond the office door. Exam room design must be more flexible and functional, providing the means for ongoing monitoring of patients in addition to scheduled office visits. This design features a designated consultation zone that gives physicians the power to stay in contact with caregivers and to monitor the patient's health more closely. Remote diagnostic tools provide a means of feedback and ongoing monitoring, supporting the continuous patient-care relationship.



FLEXIBLE CARE ZONE

The care zone is designed to allow left- or right-sided access and the ability to retrieve instruments and supplies at the point of care. Flexibility and proximity are important for increasing caregiver efficiency and reducing the need to move away from the patient to retrieve instruments and/or supplies.



CONSULTATION ZONE

The consultation zone is designed around a shared interactive display for the caregiver and patient. It allows the caregiver to review medical records and educational materials as well as set schedules for medication, reinforcing a long-term care relationship.

TELEHEALTH

Communication is focused on engaging the patient beyond the visit by using online tools such as reminders, educational materials and a means of feedback to monitor progress. For maximum efficiency, the caregiver may use the consultation zone for remote communication between face-to-face visits, saving time and utilizing fewer exam rooms.

1

VITAL SIGNS

All vital signs measurements are captured at the point of care including weight using an automated device.

2

SINGLE PANE OF GLASS

Connected equipment and devices are operated from the computer screen.

3

BETTER BLOOD PRESSURE

The 626 exam chair with Patient Support Rails+ can be positioned to properly support the patient's feet, back and arm.

4

INFECTION PREVENTION

Use of a self-rooming workflow as well as capturing all vital signs and weight in one location reduces exposure to contagions. RTLS automates contact tracing. The exam chair with a retractable roller base and medical-grade cabinetry can be easily cleaned and disinfected.

5

REAL-TIME LOCATING SYSTEM

Use of RTLS for a patient flow optimization and self-rooming can reduce waste and eliminate bottlenecks.

6

CLINICAL PROCESS IMPROVEMENT

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7

AMERICANS WITH DISABILITIES

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8

EMR CONNECTIVITY

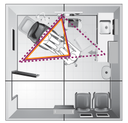
The automated vital signs device is fully connected and integrated with the EMR.

Dedicated Zones Workflow

This workflow design provides clear separation between the care zone for caregiver interaction and the family/visitor zone with guest seating. It features a full-function height-adjustable exam chair with integrated scale, an automated vital signs device and EMR connectivity for added efficiency and ease of patient handling. The computer workstation is located adjacent to the exam chair for optimal access of digital data at the point of care. In addition, supply storage is placed within arm's reach with a mobile cart unit for easily accessed supplies.

PUBLIC/PRIVATE ZONES

The family/visitor zone, also known as the public zone, is easily accessible from the entrance and includes seating as well as a dressing nook for the patient. It provides privacy, but does not infringe on the efficiency of the care zone, also known as the private zone.



EFFICIENT CARE ZONE

With the patient seated on the height-adjustable exam chair throughout the visit, there is no delay due to transfer or repositioning. Flexibility and proximity help increase the efficiency of the caregiver, reducing the need to move away from the patient to retrieve instruments and/or supplies.

SUPPLY PROXIMITY

A mobile supply cart with well-organized drawers can be retrieved from a dock in the adjacent cabinet to be in close proximity to the care zone. The supply cart can also serve as an additional work surface, positioned left or right of the caregiver.

1

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All vital signs measurements are captured at the point of care including weight using an automated device.

2

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Connected equipment and devices are operated from the computer screen.

Procedure Room Workflows

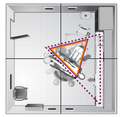
In-Office Procedure

Dermatology

Podiatry

In-Office Procedure Workflow

The number of in-office medical procedures is increasing while there is growing pressure to control costs. This in-office procedure room was designed to enable physicians to better meet patient demands and contain procedure costs. Well organized storage puts instruments and supplies within arm's reach. Taking into consideration hygiene, primary storage and bulk storage zones can maximize efficiency and minimize traffic. The procedure chair also offers maximum flexibility in bringing the patient to the caregiver.



PROCEDURE CENTERED

Once the patient is positioned on the chair, the procedure zone is designed to support the caregivers. Mobile carts and mobile work surfaces (that are part of the storage system) create a more efficient procedure zone, helping the provider avoid excessive clutter before, during and after the procedure and limiting excessive steps.

PROCEDURE ZONE EFFICIENCY

The procedure zone is designed around the caregiver, providing access to the patient, work surfaces and supplies. Rotation of the procedure chair allows the physician to efficiently reposition the patient as needed during the procedure for better access.

ENHANCED ERGONOMICS

Barrier-free access, eight-way adjustment, pre-programmed positioning and a large range of motion are key features that allow optimum positioning of the patient on the procedure chair. Better positioning of the patient improves access to care and ergonomic posture for the caregiver to avoid undue strain and fatigue.

1

CLINICAL PROCESS IMPROVEMENT

The procedure chair is positioned close enough to the cabinetry countertop for access to supplies. Mobile cabinets and supply carts can be moved in close proximity of the procedure chair as well. The adjustable positioning and rotation features of the procedure chair bring the patient to the caregiver for better access to the procedure site.

2

AMERICANS WITH DISABILITIES

The height-adjustable procedure chair decreases the need for manually lifting and repositioning patients. The center of the room is kept open to allow a 60-inch wheelchair turning area. There is also ample room for patient egress.

3

REAL-TIME LOCATING SYSTEM

Use of RTLS for a patient flow optimization and self-rooming can assist in waste reduction efforts that help eliminate costly bottlenecks.

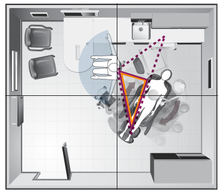
4

INFECTION PREVENTION

Use of a self-rooming workflow reduces exposure to contagions. RTLS automates contact tracing. The mobile procedure cart can be easily moved for cleaning and disinfecting. Seamless upholstery as well as seamless door and drawer cabinetry finishes, tub-style drawers and solid surfaces also help simplify cleaning.

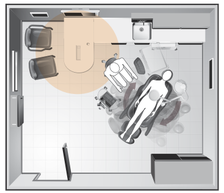
Dermatology Workflow

In this workflow, we have reengineered the dermatology room to combine three key activities effectively in one space—consultation, counseling and procedures. This seamless, flexible and efficient dermatology room design can help enhance the patient-caregiver relationship and ultimately improve outcomes.



ENHANCED ERGONOMICS

The enhanced ergonomic design helps divide the room into consultation and procedure zones with technology such as a large, interactive monitor to make the consultation more visual and engaging. Before the start of the procedure, the treatment room is well-organized, minimizing visual clutter while reducing patient anxiety. This is supported by ample storage along one wall with a vertical storage unit for larger equipment. Considerations should also be made to ensure that storage is organized in a manner that enhances ergonomic reach and efficiency.



CONSULTATION ZONE

The consultation zone is designed around shared communication between the caregiver, patient and guest. 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 have displays for related care products.

1

CLINICAL PROCESS IMPROVEMENT

The procedure chair is positioned close enough to the cabinetry countertop for access to supplies. Mobile cabinets and supply carts can be moved in close proximity of the procedure chair as well. The adjustable positioning and rotation features of the procedure chair bring the patient to the caregiver for better access to the procedure site.

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AMERICANS WITH DISABILITIES

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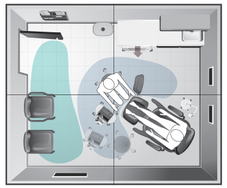
4

INFECTION PREVENTION

Use of a self-rooming workflow reduces exposure to contagions. RTLS automates contact tracing. The mobile treatment cabinet can be easily moved for cleaning and disinfecting. Seamless upholstery as well as seamless door and drawer cabinetry finishes, tub-style drawers and solid surfaces also help simplify cleaning.

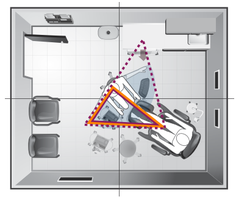
Podiatry Workflow

The integration of new technologies and advancements with in-office procedures are shaping the future of the podiatry practice. Function, efficiency and versatility are key to an effective podiatry room design—and at the center of it all is the procedure zone. The design of this workflow addresses the many needs of the podiatry procedure zone.



PUBLIC/PRIVATE ZONES

The family/visitor zone, also known as the public zone, does not encroach on the movement of the caregiver. It includes displays for educational brochures and related care products and is clearly separated from the procedure zone.



PROCEDURE ZONE FLEXIBILITY

The procedure zone puts the caregiver in the center. While the cart for primary instruments and supplies can be stored under the countertop and out of the way, during procedures it is moved to either side of the caregiver. This helps to maintain a short reach zone. An instrument tray attached to the procedure chair supports instruments and supplies or mobile devices.

1

CLINICAL PROCESS IMPROVEMENT

The podiatry chair is positioned at an angle, which provides more effortless access to the foot area for the caregiver—whether in a seated or standing position. The room also provides an abundance of streamlined, well-organized storage.

2

AMERICANS WITH DISABILITIES

The height-adjustable podiatry chair decreases the need for manually lifting and repositioning patients. The center of the room is kept open to allow a 60-inch wheelchair turning area. There is also ample room for patient ingress and egress.

3

REAL-TIME LOCATING SYSTEM

Use of RTLS for a patient flow optimization and self-rooming can assist in waste reduction efforts that help eliminate costly bottlenecks.

4

INFECTION PREVENTION

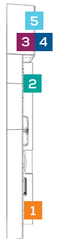
Use of a self-rooming workflow reduces exposure to contagions. RTLS automates contact tracing. Seamless upholstery, sealed hand controls and covered glides as well as seamless door and drawer cabinetry finishes, tub-style drawers and solid surfaces also help simplify cleaning.

Instrument Processing Workflow

Instrument
Processing

Instrument Processing Workflow

Instrument processing is a critical part of any infection prevention protocol. Even with a designated area for instrument processing, there's a chance the workflow design may not be organized efficiently. Following a dirty-to-clean instrument processing workflow recommended by the CDC can help contain contamination and maximize the efficiency of your instrument cleaning and sterilizing process.



STRAIGHT LINE

The straight-line layout can help you create an efficient, standardized 5-step instrument processing workflow. The linear design creates a clear flow path from dirty to clean, minimizing the risk of cross-contamination.

U-SHAPED

For facilities with a larger procedure volume, the instrument processing area must be large enough for the necessary equipment. The u-shaped workspace design provides ample space and surface areas, allowing more staff in the room while maintaining a clear flow from dirty to clean.

GALLEY

The galley layout consists of workspaces on two opposing walls with a single traffic lane between. This arrangement allows for easy access and an efficient workflow. This design can help staff keep the process moving using a linear flow from dirty to clean while also keeping everything within reach.

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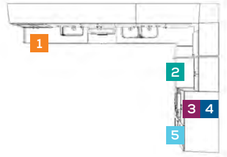

L-SHAPED

An L-shaped counter arrangement maximizes use of available space where elbow room is limited. The space you have can be all you need for a better instrument processing workflow.

STEP 1
Receiving + Cleaning

Reusable instruments, supplies and equipment should be received, cleaned and disinfected in one section of the processing environment.

STEP 2
Preparation + Packaging

Cleaned, dried instruments and other supplies should be inspected for residual debris and damage, assembled into sets or trays, and wrapped or packaged for sterilization.

STEP 3
Sterilization

The sterilization area should include the sterilizer and related supplies with adequate space for loading and unloading the sterilizer. Follow the instructions for use (IFU) on cleaning and sterilizing for each instrument.

STEP 4
Monitoring/Sterility Assurance

Mechanical, chemical and biological monitoring should be used to ensure the efficacy of the sterilization process. Results of sterilization need to be recorded.

STEP 5
Storage

The storage area should be adequately sized, closed or covered, and located apart from contaminated instruments in an area protected from moisture. Supplies and instruments should not be stored under the sink.

DESIGN SUPPORT

Whether you are building a new facility or remodeling, the prospect can be overwhelming. Our in-house design experts are ready to help you every step of the way, including partnering with your preferred dealer and working with existing floorplans and designs. The Midmark Live Design process provides a variety of benefits oftentimes solving issues customers may not even know they had. We can help you choose from a variety of designs, configurations and styles and all specific to your instrument processing needs. Let's design a better clinical environment together.

View a short video

Colors + Finishes

Traditional Vital Signs

Upholstery:
Latte

Countertop:
Milano Quartz

Cabinets:
Dune

Triage Nook

Upholstery:
Black

Countertop:
Concrete Stone

Cabinets:
Henna

Basic In-Room Vital Signs

Upholstery:
Curative Copper

Countertop:
Brazilian Brown Granite

Cabinets:
Radiance

Connected In-Room Vital Signs

Upholstery:
Healing Waters

Countertop:
Antarctica

Cabinets:
Storm

Traditional Exam

Upholstery:
Curative Copper

Countertop:
Milano Quartz

Cabinets:
Dune

Dual Access

Upholstery:
Robust Brown

Countertop:
Concrete Stone

Cabinets:
Henna

Continuous Care

Upholstery:
Citrus

Countertop:
Evening Tigris

Cabinets:
Path

Dedicated Zones

Upholstery:
Sandy Retreat

Countertop:
Kalahari Topaz

Cabinets:
Acorn

In-Office Procedures

Upholstery:
Soothing Blue

Countertop:
Bronze Legacy

Cabinets:
Frost

Dermatology

Upholstery:
Lunar Gray

Countertop:
Arrowroot

Cabinets:
Storm

Podiatry

Upholstery:
Branch

Countertop:
Green Tigris

Cabinets:
Flax

Instrument Processing

Countertop:
Deep Night Sky

Cabinets:
Dune

SOURCES

01 https://www.midmark.com/docs/default-source/documents/vital-signs-acquisition-infographic-rebrand-final875a1edfce4444108bb224ed547f0244.pdf?sfvrsn=69b0f7ee_0

02 Acceptable industry average, multiple sources.

03 Fieler, V. K., Jaglowski, T., & Richards, K. (2013). Eliminating errors in vital signs documentation. Comput Inform Nurs, 31(9), 422-427; quiz 428-429. doi:10.1097/01.NCN.0000432125.61526.27 PMID:24080751

04 https://www.acc.org/latest-in-cardiology/articles/2017/11/08/11/47/mon-5pm-bp-guideline-aha-2017

05 https://www.cdc.gov/nchs/fastats/leading-causes-of-death.htm

06 https://www.ahajournals.org/doi/10.1161/HYP.0000000000000065

07 https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(23)00396-6/fulltext

08 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2911816/

09 Calculated by 50,000,000 affected* / 307,000,000 US 2009 population** Data from: *https://www.ncbi.nlm.nih.gov/pmc/articles/ PMC2911816/ and **Census.gov

10 Assuming $15/hour, 8 hours/day, 48 weeks/year

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