

Evolution™ Equipment Management Rail System



D E S I G N

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P L A N N I N G

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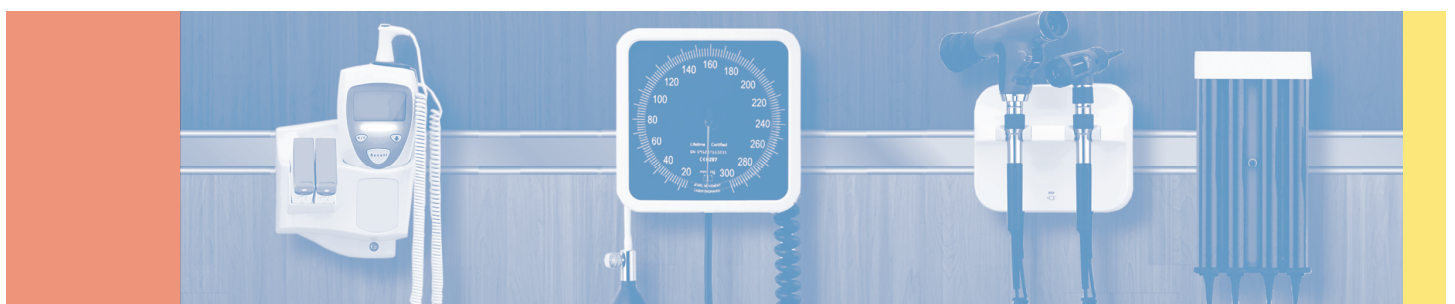


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EVOLUTION EQUIPMENT MANAGEMENT RAIL SYSTEM

The Evolution Medical Equipment Management Rail System empowers your design to deliver enhanced clinical outcomes; superior workflow scalability, safety and ergonomics, all while helping your facility minimize costs and drive ROI.

The system is composed of rail, plates, adapters, and accessories to help you create a linear and scalable component-based solution that is highly organized, clinically efficient, vertically managed, and easy to move, change, and adapt to existing and future needs.

Planning and Design Tools

Paladin Healthcare™ has created an entire suite of planning and design tools to help healthcare enterprises and architects create safer and more efficient patient environments. You can access the entire Paladin product line, which features CAD details and specifications in multiple formats including Revit, at the Paladin website or at the CADdetails.com website.

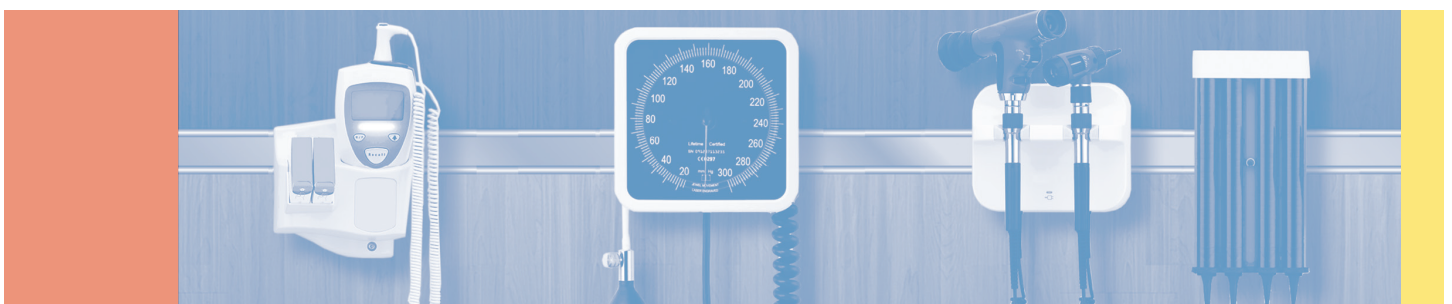
Paladin Website

<http://www.paladinhc.com/>

CADdetails.com

<http://www.caddetails.com>, simply keyword search Paladin or use the direct link below.

<http://www.caddetails.com/Main/Company/ViewCompanyContent?companyID=5085>





TRENDS AND CHALLENGES

Adaptability

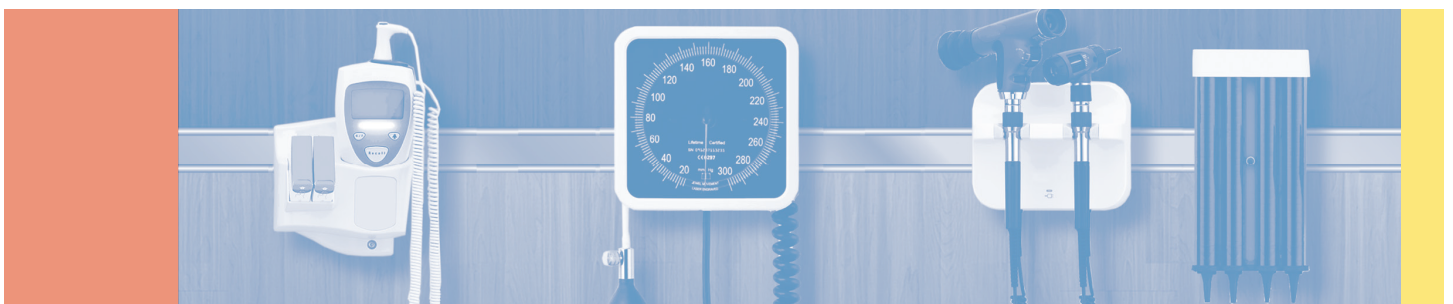
Hospitals are planning facilities and patient rooms to be more adaptable to an increasing percentage of higher acuity patient populations as moderately acute conditions will be increasingly treated at inpatient facilities. Patients in acute care spaces will be increasingly unstable and require a higher percentage of intensive care. As a result, architects and planners need to design patient rooms that can more easily adapt or “flex” to accommodate change without major service disruption and capital investment. These adaptable rooms are designed to handle higher acuity patients and additional devices that require more capacity for services, connectivity and equipment management.

The Evolution Equipment Management Rail System permits hospitals to quickly scale patient rooms to meet shifts in their census by providing a flexible workflow infrastructure from which clinical tools, devices, services, everything necessary to provide superior care can be accessed. Adding and relocating accessories to Evolution takes only a few moments, you can scale up a med-surg room or unit in minutes not days.

Flexibility

Patient care and outcomes are increasingly supported by technology at the bedside such as life support devices, treatment modalities, monitoring systems, PPE/hygiene equipment and information management. As hospital acuity increases, additional technology is introduced into the patient room and the bedside that present new challenges to have sufficient outlets, space and connectivity. Patient room infrastructure must be designed to accommodate technology as diverse as portable clinical devices to built-in patient lifts and handling equipment.

The Evolution Equipment Management Rail System lets hospitals quickly and efficiently add new technology and reorganize supplementary care tools within the patient environment in a manner that facilitates changes to their workflow.





HCAHPS Scores

Hospitals and health systems constantly strive to improve patient scores as measured through the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey, the results of which are tied to CMS reimbursements using the hospital value-based payment model.

The HCAHPS survey focuses largely on the patient's experience of care, which strongly reinforces the need for design to promote the ability to implement process improvements that support the clinician's ability to administer care. A growing body of research indicates that the patient's perception of cleanliness is improved by the elimination of clutter. Clutter can lead to lower HCAHPS scores. Clutter can diminish workflow and staff responsiveness.

Evolution Medical Equipment Management Rail System lets you design, sustain and maintain order in the patient environment. Creating a clean, clutter-free space for patients, clinicians and family provides a sense of well-being and promotes caregiver efficiency. All of this can help your client and their facilities on the journey to lower HCAHPS scores.

Lean, Six Sigma, Continuous Improvement & Kaizen

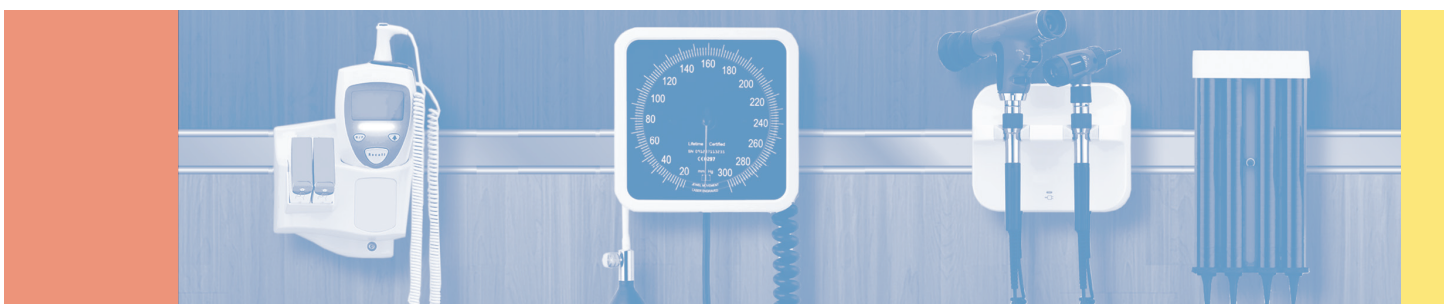
In order to keep pace with evolving patient needs, healthcare design will be continuously evaluated to ensure that critical metrics are not only being met, but also being improved. Instilling workflow flexibility throughout the design of healthcare spaces enable facilities to quickly and easily reconfigure their workflow, improve their metrics and maximize their investment in "lean processes."

Evolution Medical Equipment Management Rail System supports a facility's need to engage continuous improvement and realize cost saving and efficiency results quickly and efficiently. It's a dynamic rail system that helps par level critical inventory, empowers workflow and permits "real time" adjustment in processes yielding immediate ROI for the entire team and the patients they serve.

Safety and Ergonomics

The U.S. continues to experience a shortage of Registered Nurses (RNs) that is expected to intensify as Baby Boomers age and the need for healthcare grows. Today's nurses average age is 50. We need more nurses and we need to design spaces that minimize bending, reaching, stretching and lifting: all key contributors to staff injury.

With the Evolution Equipment Management Rail System, facilities can avoid the pitfalls of poor ergonomic design. Evolution gives the entire team (clinicians, architects, medical planners) the ability to design safe and effective care spaces, minimizing the threat of injury to all who engage the patient environment.





Infection Control

Hospital-acquired infections (HAI) and other easily transmittable diseases are a serious concern in most facilities today, as they have a direct impact on hospital reimbursement rates.

Implementing some of the latest best practices in your physical environment can help to minimize their impact—and help you get the best outcomes from your efforts. The equipment management strategy that the design team and hospital creates can have a profound impact on infection control. It is important to acknowledge that this is a process. Architects and hospitals design and implement standard (directional) workflow throughout their facility, workflow that will almost certainly change with the introduction of new technologies, new processes, and new acuties; it is important that the infrastructure not only accommodate terminal cleaning, but also the change that is sure to come with clinical progress.

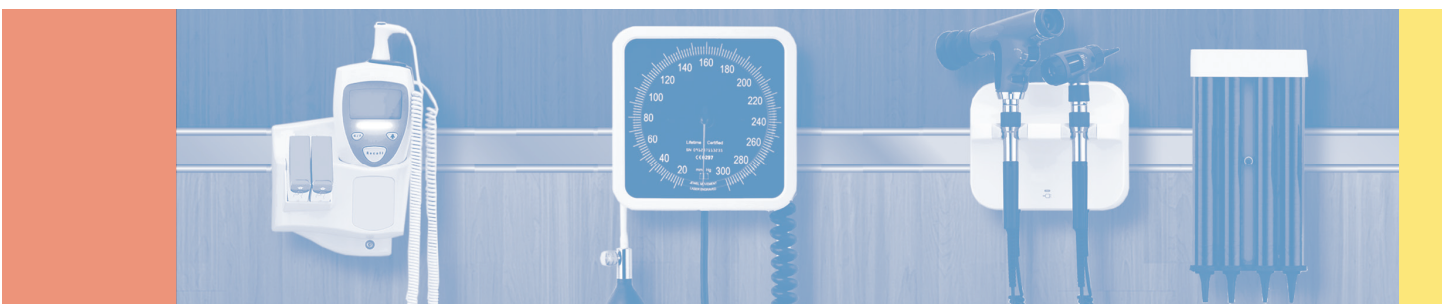
The Evolution Equipment Management Rail System lets hospitals take hand-washing stations/hand sanitizers and place them anywhere. Facilities can implement today's best practices and leverage standard directional flow, to provide easy access to the sink and hand washing protocols. Evolution's highly cleanable infrastructure is quickly and easily adapted to new workflow and true terminal cleaning is created. Instead of cleaning around devices, bioengineering is able to remove and clean the devices, the rail, and the wall to help deliver a clean, healthy environment.

Aesthetics

In addition to striving to achieve the highest standards of clinical care, hospitals seek to create warmer and more welcoming environments for patients and families. Implementing evidence design principles such as natural materials, access to daylight and minimizing sound help create a comfortable, healing experience for patients. Blending functional needs with design features to deliver optimal outcomes and a satisfying patient experience can secure customer and community loyalty.

The Evolution Equipment Management Rail System is easily integrated into the facility's hospitality design goals. Evolution™ is a seamless, extruded aluminum profile with a clear anodized finish featuring an integrated groove allowing you to incorporate a seamless strip of decorative laminate inlay to coordinate with your design. When a redesign becomes necessary, simply replace the laminate strip to match the new aesthetics. Additionally, the rail can be powder coated to match any fixture or finish in the room's environment. Anti-microbial finishes (in select colors) are available as well.

The Evolution Equipment Management Rail System can contribute to the aesthetic of the room. Select the proper laminate/finish and it can vanish into the wall to which it is attached. Select a different combination of laminate/finish and it can “pop” into the room creating a focal point for design.



Sustainable Cost Reductions

Lifecycle Costs – Return on Investment (ROI)

For hospitals and health systems to achieve the kind of deep, sustainable cost reductions required for success in today's healthcare market, they must collect and mine data to alter clinician behavior, leverage design and apply process rigor to reduce variations in care and establish a senior administration that leads by example, relentlessly seeking efficiency while making patient centric decisions.

The Evolution Equipment Management Rail System helps senior administration on their quest to achieve these goals. Evolution helps support smart, effective clinical behavior. Evolution empowers design and process rigor to bring best practices to all areas of the healthcare environment. And the data is compelling and clear. Evolution Equipment Management Rail System helps hospitals and healthcare providers lower their costs and achieve ROI.

Example: A Tale of Two Hospitals with 250 beds

Facilities are constantly making changes to be more efficient, more effective, improve patient satisfactions, reduce HAI's and cut costs. A prime example of how facilities continuously address their cost structure is through supply chain management. The following is a simple, all-too-familiar example of how the Evolution Equipment Management Rail System helps healthcare providers achieve deep, sustainable cost reductions and it's built around a simple "cost reduction" initiative at a 250 bed hospital.

Total Cost of Occupancy/Installation

Hospital A

Traditional Wall-Mounted		
Installation		
Hand Soap	\$	20
Paper Towel Dispenser	\$	40
Foam Dispenser	\$	30
Labor (90 minutes @ \$30/hr)	\$	45
Installed Device Costs	\$	135
Costs x Number of Rooms (250)	\$	33,750

Hospital B

Rail-Mounted		
Installation		
Hand Soap	\$	20
Paper Towel Dispenser	\$	40
Foam Dispenser	\$	30
3' Rail System	\$	206
Labor (20 minutes @ \$30/hr)	\$	10
Installed Device Costs	\$	306
Costs x Number of Rooms (250)	\$	76,500

This tale involves two hospitals. Hospital A and Hospital B. Both hospitals are dedicated to relentlessly reducing costs and are reviewing the projected project costs. After scrutinizing the numbers, the administration of Hospital A decides to minimize Total Cost of Occupancy and attach clinical tools (a small sample listed above) in the "traditional wall-mounted" method. Hospital B, however, opts to install rails onto the walls in order to provide flexibility, scalability, clean-ability and workflow. The numbers certainly appear to support the finance team of Hospital A. They were able to save over \$40,000!

Clinical care spaces are not created to last a day, a week, or simply a year. New hospitals, renovations or upgrades to existing spaces are all built with a 30-50 year functional life in mind. The story continues.

Purchasing Delivers Real Savings

Both facilities, Hospital A and Hospital B, belong to a purchasing group who just renegotiated a contract with their Foam Dispenser supplier. Not only does the new foam more effectively protect patients and clinicians, but also it costs less (both the dispenser and the foam!) The savings are rolling in and the hospital is less than a year old.

Hospital A

Traditional Wall-Mounted		
Replacement Costs New Foam Dispenser		
NEW Foam Dispenser	\$	15
Labor (5 hours @ \$20/hr)	\$	100
Materials (Paper/Paste/Paint)	\$	10
Lost Revenue (5 hours @ \$70/hr)	\$	350
Costs per Room (Bed)	\$	475
Costs x Number of Rooms (250)	\$	118,750

Hospital B

Rail-Mounted		
Replacement Costs New Foam Dispenser		
NEW Foam Dispenser	\$	15
Labor (15 minutes @ \$20/hr)	\$	5
Materials	\$	N/A
Lost Revenue (\$70/hr)	\$	N/A
Costs per Room (Bed)	\$	20
Costs x Number of Rooms (250)	\$	5,000

Both hospitals immediately engage in implementing the new savings. Dispenser costs alone represent a 50% savings. Hospital A sends maintenance up to pry the old, wasteful, less effective foam-laden dispenser off the wall and install the new foam partner's solution. It's going to take about five hours. They need to pull the dispenser off the wall, fix the wall, paint the wall and reattach the dispenser. Obviously the rooms will have to be taken out of commission (so there's lost revenue) while the work is being done. (There's quite a bit of logistical work here as well. Lots of planning involving an entire matrix of care providers, schedulers, administrative assets.)

Hospital B sends maintenance up to remove the old foam dispenser and attach the new one to the rail system. It's done quickly, cleanly, effectively and without any disruption to clinical processes.

Hospital A spent \$118,750 dollars to secure their savings. Hospital B spent just \$5,000.

First Year Lifecycle Savings

Hospital A

Traditional Wall-Mounted		
Lifecycle Costs First Year		
Total Costs of Occupancy	\$	33,750
Cost of First Change	\$	118,750
Costs	\$	152,500

Hospital B

Rail-Mounted		
Lifecycle Costs First Year		
Total Costs of Occupancy	\$	76,500
Cost of First Change	\$	5,000
Costs	\$	81,500

What went wrong? Both hospitals made it a priority to control costs and create/sustain patient-centric care processes. How is it that Hospital A spent over \$150,000 whereas Hospital B spent only \$81,500 to achieve the same (!) cost-savings goals?

The team at Hospital B from planning and design through the administration understood the Trends and Challenges facing their facility and opted to build an infrastructure to last the life of their hospital. With a keen eye on workflow, scalability, adaptability, infection control, safety and ergonomics and even aesthetics, they relentlessly pursue sustainable cost reduction, clinical efficiency and patient satisfaction. See the Addendum on page 22 to see all of the tables consolidated into a single sheet.

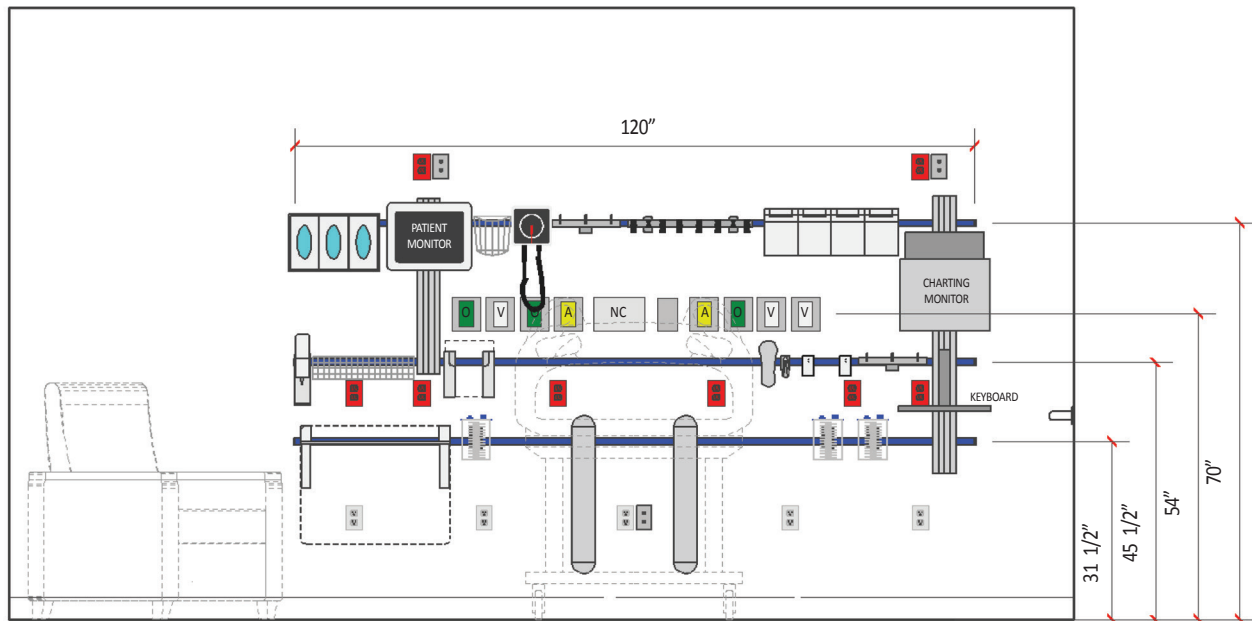


CLINICAL ENVIRONMENTS

Intensive Care Units - ICU

ICU's have concentrated special equipment requirements and highly trained personnel for the care of seriously ill patients requiring immediate and continuous attention (intensive care, sometimes called critical care). Equipment needs often vary from patient-to-patient. Workflow, scalability and the ability to create and maintain a clean environment are of paramount importance.

Clinicians in this space are always highly engaged and the administration of care can require quick thinking, easy access to tools and devices and can be physically demanding as well.



Rail Placement

In order to minimize bending, stretching and reaching (activities which can cause injury to clinicians, patients and attendees) rails should be placed in the “ergonomic strike zone” between 24” off the floor and 70” inches off the floor. Here we’ve place a horizontal rail at 31.5”, one at 45.5” and a third rail at 70”.

Limit the area above 72” to visual displays, which are easily mounted to the rail system. Avoid devices or storage below 28” as these items can cause trip hazards and can be difficult to clean.

Running the Evolution Equipment Management Rail System across the breadth of the clinical zone provides enhanced horizontal and vertical infrastructure for the additional clinical tools required in today’s ICU.





Gas Services

Configuring in-wall services should be based on the loading of specified services and medical devices to be mounted in order to facilitate patient care. Devices such as flowmeters, regulators, hand sanitizers, etc. come in a variety of sizes that if not properly spaced can restrict the use of outlets.

The recommended minimum space between gas services should be 4.5" center-to-center. Rails should be placed 6"-18" below gas outlets in order to provide adequate clearance for attached devices that may have suspended canisters.

Electrical/Data Services

Minimum spacing between electrical devices is 1.812" minimum and it is recommended that care be taken to place electric/data between 3"-6" below the rail and not directly under a gas service, in order to facilitate clinical access.

Clinical Workflow

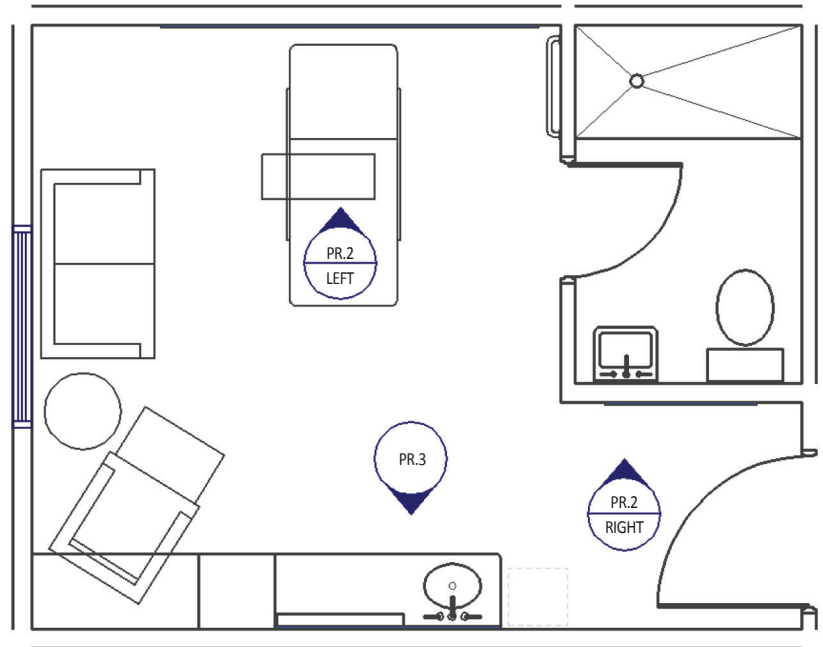
Place charting monitors and keyboards on the rail on the side closest to the room's entry. This permits the clinician to quickly access and assess the patient and conduct necessary care protocols and charting.



Med-Surg

A medical-surgical (Med-Surg) unit is tasked with the care of adult patients in a broad range of settings. Patient's needs are typically not as urgent as in an ED or as acuity driven as an ICU, however, the need to support clinical workflow and scalability has never been greater.

Let's examine the use of the Evolution Equipment Management Rail System in the design of a Med-Surg or step down room.



Med-Surg rooms, indeed many ICU rooms, are typically comprised of five clinical design opportunities:

1. The headwall, where med gases, electrical, data and accessories are configured to support patient care, provide ergonomics, power workflow, and enable scalability. (PR.2 | Left).
2. The footwall space, where clinicians engage hand washing, PPE and other clinical devices (PR.3). Often times, cabinetry and other items designed to facilitate storage are included here as well.
3. The Entrywall (PR.2 | Right) where we can station storage containers for clinical tools, gloves or mount hand sanitizer for ease of use upon entry or exit.
4. The "Family Space". This is where the designer accommodates loved-one participation with the use of healthcare furniture such as recliners, side tables, sofas (including pullout sofas to enable loved ones to stay the night).
5. The Bathroom. Med-Surg and Step Down patients are often well enough, even required, to get out of bed and management bathroom functions on their own (or with a modicum of assistance). Facilitating safe traverse of this area is a chief concern for clinicians, architects and designers as they design patient rooms.



The Evolution Equipment Management Rail System at work in a Med-Surg environment. Evolution easily integrates with all commercial or custom wall panel systems to bring order, scalability and extendability to the patient environment.

Right at home in the Emergency Department, the Evolution Equipment Management Rail System supports workflow and cleanability as no other system can. New tools, storage options and treatment modalities can be quickly configured so the room is ready in minutes and not days.





Headwall Design using Evolution Equipment Rail

Rail Placement

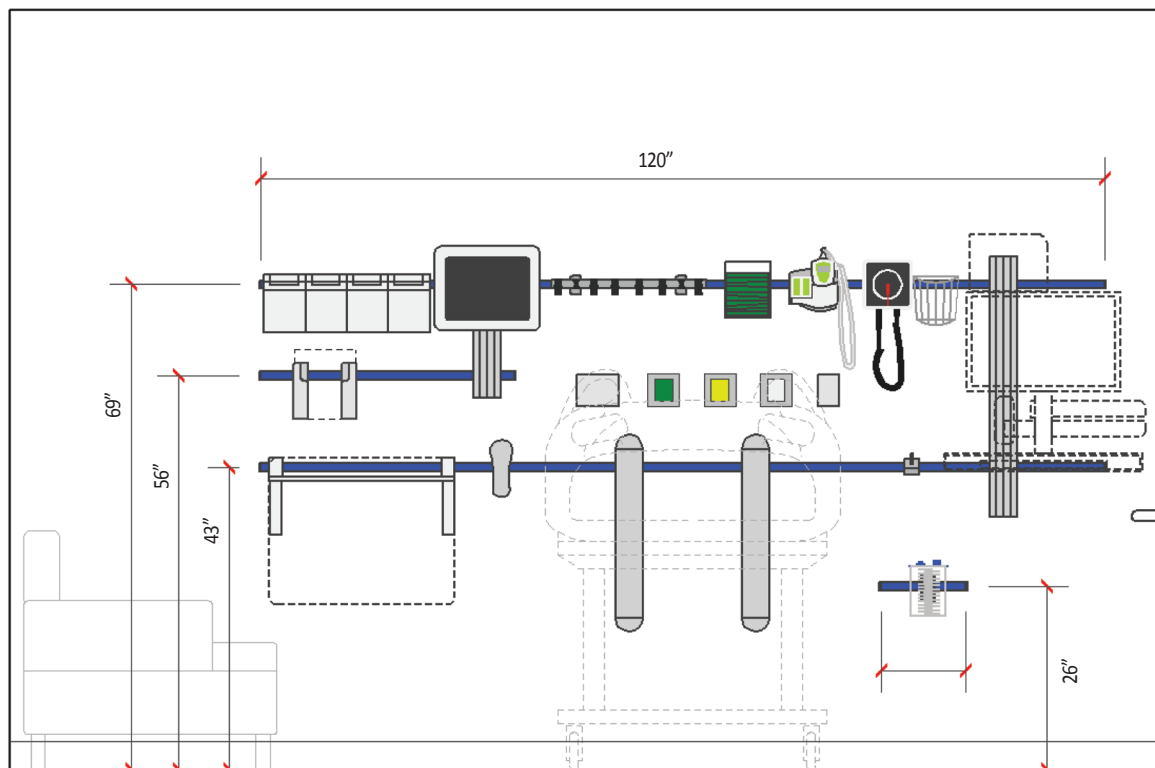
In order to minimize bending, stretching and reaching (activities which can cause injury to clinicians, patients and attendees) rails should be placed in the “ergonomic strike zone” between 18” off the floor and 70” off the floor. Here we’ve placed a horizontal rail at 43”, one at 56”, one at 69”, and one at 26”.

The rail at 43” helps secure a working surface, integrates bed bumpers (by Paladin or others) for wall protection and serves to mount any number of clinical tools easily within reach of caregivers.

The rail at 56” is used to secure the patient monitor, easily within reach of clinicians. The rail at 69” facilitates storage, baskets, clinical tools and additional space for tracks and the monitors or electronic devices required to provide data in the clinical environment. Lastly, a rail placed at 26” off the floor helps secure vacuum canisters out of the way of med gas, nurse call and data attachments (not to mention the bed) but well within the reach of the clinician. Lowering the vacuum canister also removes it from the patient’s field of vision, protecting the patient experience. An integrated GCX channel for CPU, monitors and/or keyboard (here leveraging the rails placed at 43” and 69”) provides superior access to the patient while keeping the floor clear of trip hazards and cleaning liabilities.

Limit the area above 72” to visual displays, which are easily mounted to the rail system. Avoid devices or storage below 28” as these items can cause trip hazards and can be difficult to clean.

LEFT HEAD WALL





Gas Services

Configuring in-wall services should be based on the loading of specified services and medical devices to be mounted in order to facilitate patient care. Devices such as flowmeters, regulators, hand sanitizers, etc. come in a variety of sizes that if not properly spaced can restrict the use of outlets.

The recommended minimum space between gas services should be 4.5" center-to-center. Rails should normally be placed 6"-8" below gas outlets in order to provide adequate clearance for attached devices that may have suspended canisters.

Electrical/Data Services

Minimum spacing between electrical devices is 1.812" minimum and it is recommended that care be taken to place electric/data between 3"-6" below the rail and not directly under a gas service, in order to facilitate clinical access.

Clinical Workflow

Place charting monitors and keyboards on the rail on the side closest to the room's entry. This permits the clinician to quickly access and assess the patient and conduct necessary care protocols and charting.

Aesthetics

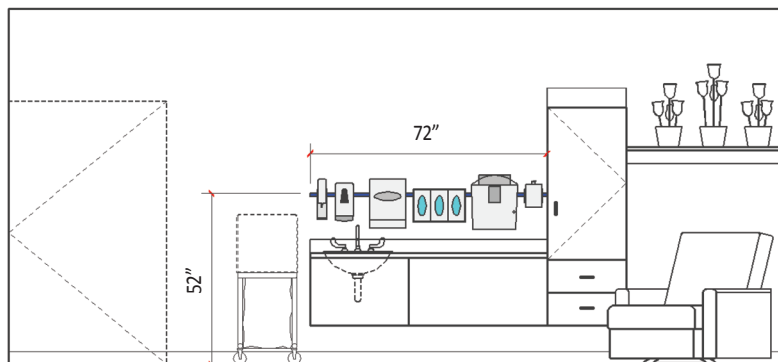
The Evolution Equipment Management Rail System is easily integrated into the facility's hospitality design goals. Evolution is a seamless, extruded aluminum profile with a clear anodized finish featuring an integrated groove allowing you to incorporate a seamless strip of decorative inlay. Additionally, the rail can be powder coated to match any fixture or finish in the room's environment. Anti-microbial finishes (in select colors) are available as well.



Footwall Design using the Evolution Equipment Management Rail System

Rail Placement

Mounting the rails at 52", spanning the clinical work surface and sink, provides a horizontal, mountable, movable and re-mountable solution to power clinical workflow now and in the future. Placement of a soap dispenser, hand sanitizer, and gloves near the sink makes promoting hand washing simple and sustainable. The facility is free from the moment of commission to change suppliers and devices, and to move/relocate critical hand washing assets without the time, trouble and expense of "peeling, papering and painting" surfaces. (See the section on Return On Investment, page 7.)



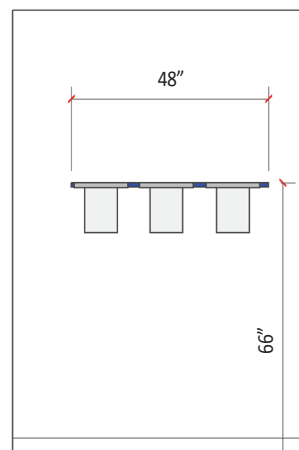
Cabinetry Design

Just as in the headwall design, rails are a superior method from placing tools and equipment within the clinician's reach. Placing clinical equipment inside of cabinets is an option, but one to be considered carefully and with great care as it creates workflow challenges for clinicians in terms of access and availability to the equipment they need to provide care.

When incorporating cabinets, suspend them in a manner to facilitate cleaning by permitting clear access to the floor and base molding. Additionally, suspending cabinets can help protect them from damage from carts, COWs (computers on wheels) and other mobile clinical devices.

Entry Wall Design

Just inside the door, hang a rail at 66", spanning the space of the adjacent bathroom. This is a convenient space to place baskets as receptacles for frequently used clinical equipment or patient education periodicals.





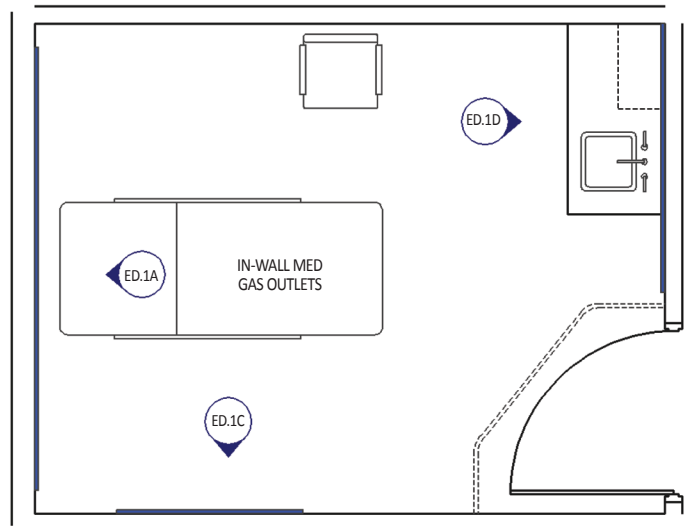
Emergency Departments

The era of long, fear-inducing waits in aged, impersonal emergency rooms is drawing to a close. The Affordable Care Act, competition amongst healthcare providers, and the demands of an increasingly engaged patient population, all have contributed to hospital systems reformulating their emergency departments into more welcoming, more efficient environments.

The ED, historically a gateway to admissions, continues to be a focal point for healthcare systems as they seek to serve their communities, strengthen their relationships and sharpen their facilities. The demand for ED services in the US continues to grow.

Private Room Design

The Evolution Equipment Management Rail System is uniquely capable of helping hospital administrators, architects and clinicians deliver on their goals of prompt and efficient care. Let's review some of the planning and design considerations for Private Room Design. In this typical design we have the ED exam headwall that will feature the clinical work zones necessary to triage or treat a patient. There are sidewalls and a footwall, each presenting the designer with the opportunity to support clinical workflow, facilitate hand washing and engage the patient and family.





ED Exam Headwall

Rail Placement

A rail placed at 33" permits the integration of wall protection (bed bumpers or bed locator) while providing horizontal anchoring of baskets in which you can store rapidly accessible clinical tools, hooks for the ambu bags and other respiratory equipment too often hung from the med gas outlets themselves (which risks damage to the device and infection), vacuum bottle slides to quickly attach, detach, clean and quickly make the room available for the next patient.

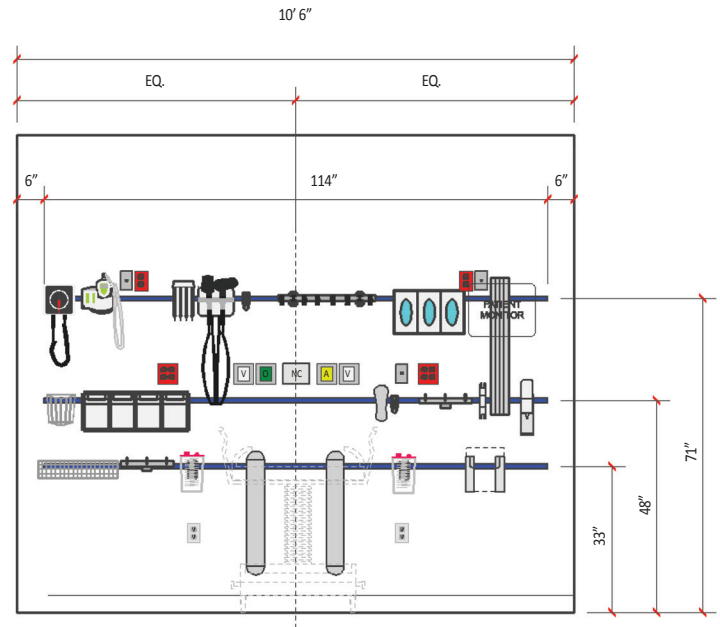
A rail placed at 48" provides flexible and scalable support of gas, data and electrical services. Baskets and a 4-Bin supply holder make tools, cord management to unclutter the workflow, equipment and PPE necessary to give prompt attention to patients quickly and readily available at all times.

A rail placed at 71" maintains the BP Cuff and manometer, thermometer, ophthalmoscope, glove boxes and patient monitor well within reach, while giving clinicians unencumbered access to the patient's head. An integrated GCX channel for CPU, monitors and/or keyboard provides superior access to the patient while keeping the floor clear of trip hazards and cleaning liabilities.

All of the inherent benefits of scalability, flexibility, and workflow are on display in the ever-evolving Emergency Department.

Clinical Workflow

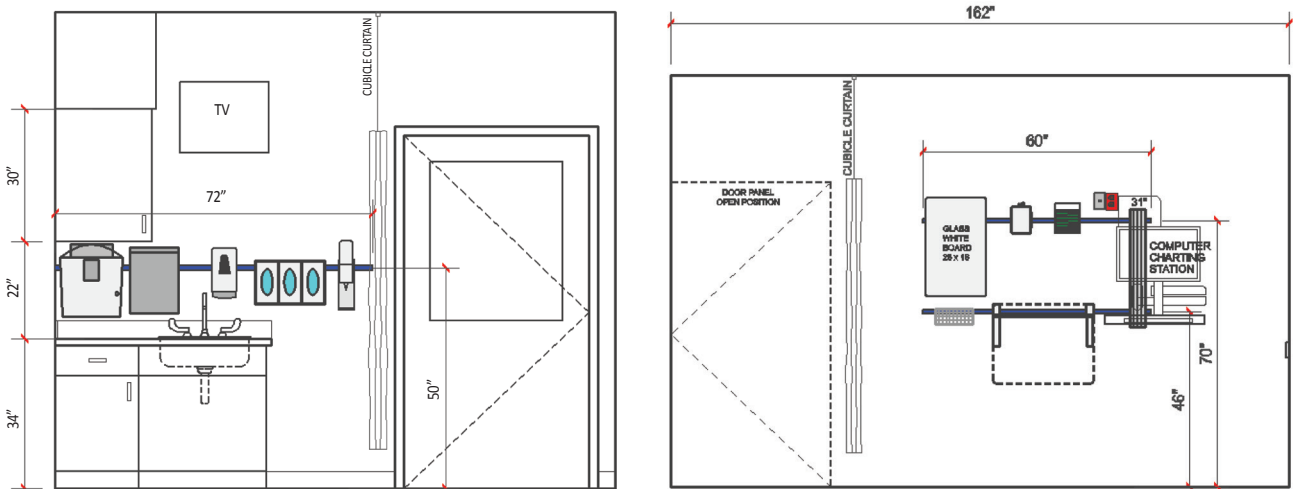
Place charting monitors and keyboards on the rail, closest to the room's entry. This permits the clinician to quickly access and assess the patient and conduct necessary care protocols and charting. Supply management tools such as baskets, clips, hooks, and tilt-out bins provide immediate visual identification and easy access to the par level inventory of supplies without tediously digging for them in a supply cart.





Adjacent Walls – Sidewall and Footwall

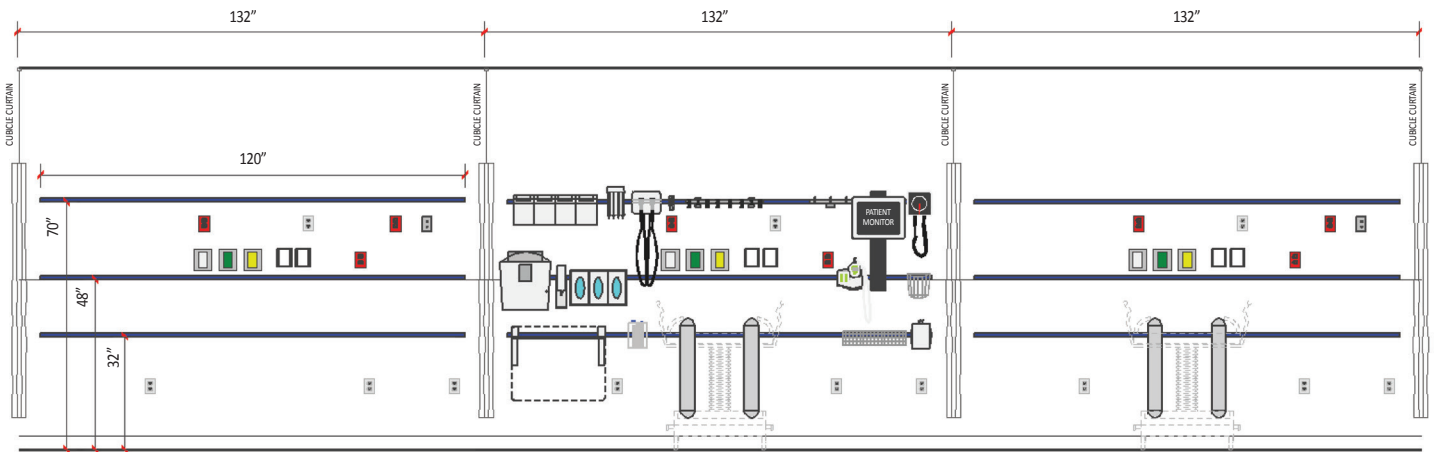
A clinician's work in and ED can be fast-paced and dynamic as in the case of trauma. Other times patients present at the ED and there can be a great many tests, diagnostics and labs to run. The great diversity of care makes sidewalls and footwalls of critical importance. Design that "locks down the placement" of clinical tools, accessories, even patient entertainment/education tools simply cannot provide the hospital with the workflow adaptability necessary to deliver its best patient care. Design that does not address cleanability, order (or the perception of cleanability), workflow and safety...while giving the facility the ability to improve upon its process is antiquated and not in the best interest of the patients we serve.





Emergency Department Bays

The Evolution Equipment Management Rail System helps you create ED Bays that work. The wall becomes your template. Partnering with the clinicians you serve, you can now demonstrate your problem solving abilities. Your design becomes integral to enhancing the outcomes of your client and the clinicians are free to change the placement of their critical tools on an as-needed basis throughout the facility lifecycle.





Infection Control

Studies have shown that the bacteria that cause hospital-acquired infections (HAI) are most frequently spread from one patient to another on the hands of healthcare workers.

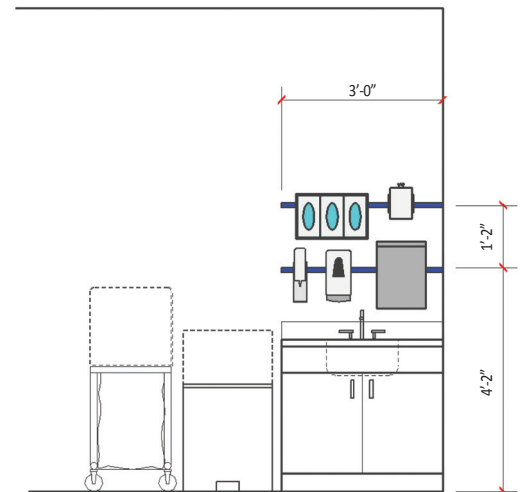
Creating a standard direction flow with easy access to sink and hand washing accessories at the room's point of entry has become a design standard. Placing the hand washing accessories on an equipment rail allows for adjustment in the system without creating wall damage that creates a potential home for deadly or nefarious pathogens.

Equipment Management Strategy

Evolution Equipment Management Rail System helps facilities create standard processes to facilitate the practice of hand washing before, after and during patient interaction.

A 3'-0" length of rail placed at 4'-2" above the floor line provides ample clearance for clinicians to engage the sink, tools and process behind a standard hand washing process. Hand sanitizer, soap and towels are placed in the order of application to facilitate a linear progression of hand washing. A second rail, placed 5'-4" off the floor contains gloves and adjustable sanitizing wipes dispenser.

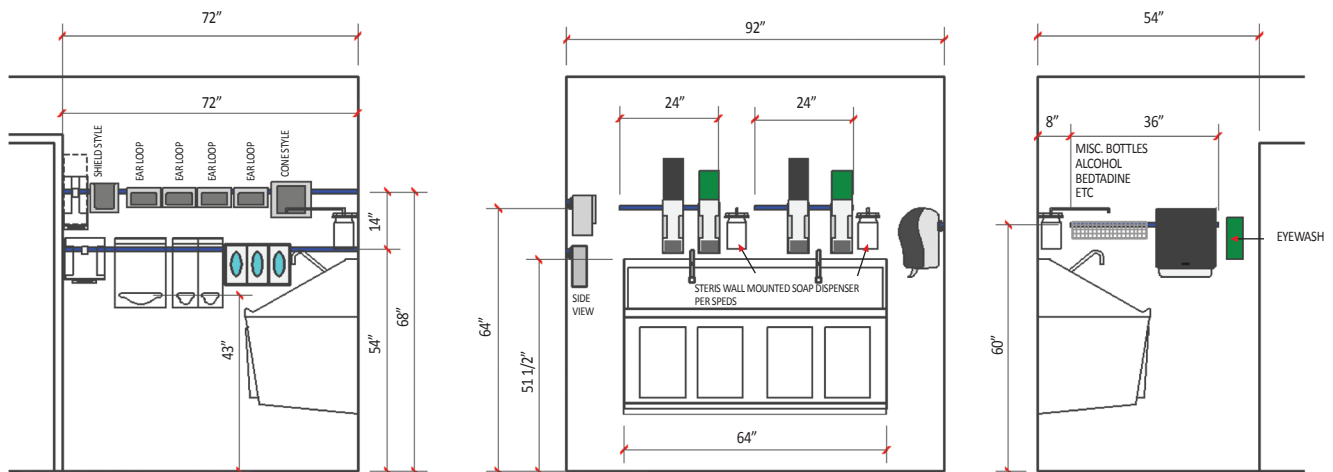
To minimize the risk of HAI's, this space must be highly cleanable. Attaching these tools directly to the wall creates an opportunity for pathogens to "hide". It may sound trite, but it is true: "If you can't paint it, you can't clean it". The ability to terminally clean a hand washing station is paramount to an effective HAI mitigation strategy.





Ambulatory/Surgical Care

Ambulatory care, or outpatient care, is medical care provided on an outpatient basis. It runs the gamut of services that were once strictly in the domain of the acute care environment. These services include: diagnosis, observation, consultation, treatment, intervention, surgical procedures and rehabilitation services.



The Evolution Equipment Management Rail System makes the design and implementation of a scrub sink alcove simple and effective. Evolution gives you the ability to create a rail infrastructure to which you can mount all the necessary gowning equipment (shoe covers, caps, PPE and gowns) and scrubbing equipment, manage and optimize the workflow at the scrub sink, while providing the simple scalability and profound clean-ability that traditional wall-mounting techniques deny.

Due to the use of highly engineered wall cladding materials in this environment, the concept of “peeling, papering, painting” simply to introduce a new supplier or piece of equipment is untenable. The surgical suite drives the ambulatory environment and taking an operating room (or two!) out of commission is unthinkable. Equally unpalatable is the idea that any design rendered in this work space is not optimized for terminal cleaning.

In this example, 24" rails mounted 64" off the floor above the scrub sink provides superior placement of the soap and sterilization media. On the right adjacent wall, a 36" long rail mounted 8" off the forward wall at 60" height yields a basket for storage (alcohol, betadine, etc.) a tall dispenser and an eyewash station. On the left adjacent wall the clinician's PPE is neatly ordered in a manner consistent with the facilitation of gowning.



Physician's Offices/Clinics

In today's healthcare environment, running a successful practice means looking for ways to improve practice processes, eliminate waste and give patients the best possible care. Careful planning and attention to design can physicians and clinics achieve these goals now and in the future.

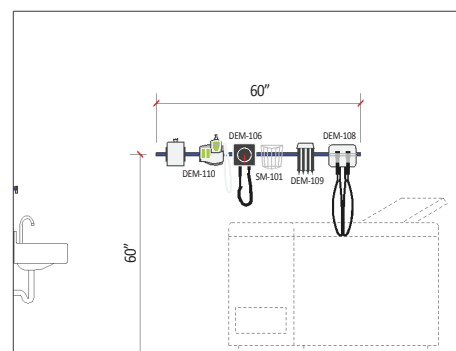
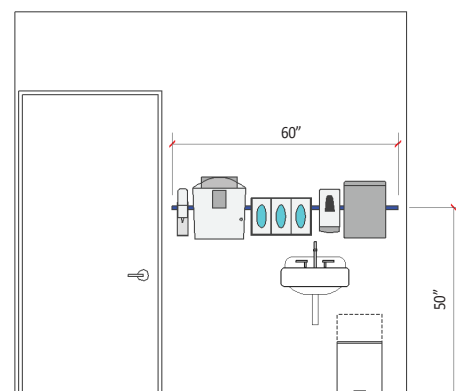
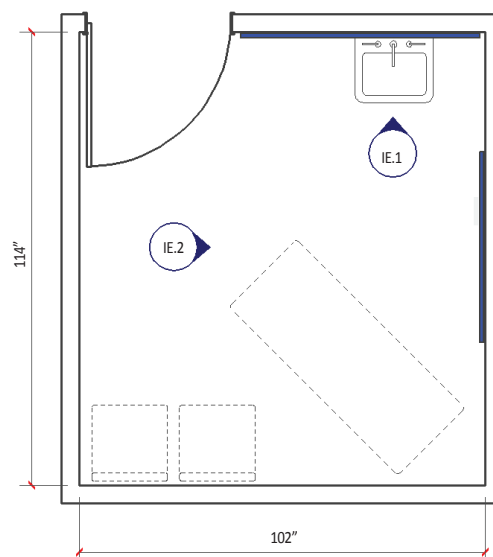
Care in the primary care physician's office frequently centers on the upper torso and head of the patient. Configuring the room so the clinician has all the tools and equipment necessary to interact with the patient with the least amount of reaching, bending, or searching helps facilitate expedient care and patient relationship building.

The Evolution Equipment Management Rail System makes a great deal of sense in today's busy primary care and clinic environment. New tools, new methodologies, even the application of electronic medical records (EMR) can be quickly and efficiently implemented with the scalable workflow provided by a rail system.

On the wall proximal to the entrance of the office there are two rails 4'-0" in length one placed 3'-0" off the floor and the second at 4'-4" off the floor. The rail at 3'-0" off the floor provides a work surface and some storage, perhaps for patient literature, gloves, or syringes and wipes. The second rail (4'-4") has a sharps container, blood pressure cuff, thermometer, and basket as well as space for clinical tools to support this physician's processes.

The wall distal to the office entrance features a rail 4'-0" long, 5'-0" off the floor. Placing the rail here gives ample space for cord management considerations for the ophthalmoscope. Additionally, glove boxes are suspended just high enough to be within the clinicians reach, but perhaps just out of reach of a young patient.

The Evolution Equipment Management Rail System gives physicians, designers and clinicians the ability to implement workflow that facilitates the highest quality of care with the most interoperability for the new technologies coming to the primary care environment.





Addendum

Lifecycle Costs and ROI: A tale of two hospitals.

Hospital A

Traditional Wall-Mounted		
Installation		
Hand Soap	\$	20
Paper Towel Dispenser	\$	40
Foam Dispenser	\$	30
Labor (20 minutes @ \$30/hr)	\$	45
Installed Device Costs	\$	135
Costs x Number of Rooms (250)	\$	33,750
Replacement Costs New Foam Dispenser		
NEW Foam Dispenser	\$	15
Labor (5 hours @ \$20/hr)	\$	100
Materials (Paper/Paste/Paint)	\$	10
Lost Revenue (5 hours @ \$70/hr)	\$	350
Costs per Room (Bed)	\$	475
Costs x Number of Rooms (250)	\$	118,750
Lifecycle Costs First Year		
Total Cost of Installation	\$	33,750
Replacement Costs	\$	118,750
Total	\$	152,500

Hospital B

Rail-Mounted		
Installation		
Hand Soap	\$	20
Paper Towel Dispenser	\$	40
Foam Dispenser	\$	30
3' Rail System	\$	206
Labor (20 minutes @ \$30/hr)	\$	10
Installed Device Costs	\$	306
Costs x Number of Rooms (250)	\$	76,500
Replacement Costs New Foam Dispenser		
NEW Foam Dispenser	\$	15
Labor (15 minutes @ \$20/hr)	\$	5
Materials	\$	N/A
Lost Revenue (\$70/hr)	\$	N/A
Costs per Room (Bed)	\$	20
Costs x Number of Rooms (250)	\$	5,000
Lifecycle Costs First Year		
Total Cost of Installation	\$	76,500
Replacement Costs	\$	5,000
Total	\$	81,500

