The LTPAC Professional's Guide to POC Device Selection

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HOW TO USE THIS GUIDE

Welcome to the LTPAC Professional's Guide to Point of Care (POC) Device Selection. This is the foremost reference for selecting and evaluating mobile computing devices for clinician documentation in the Long Term and Post-Acute Care (LTPAC) environment.

Included are the industry's best practices and the most up to date information available to assist you in your project. The purpose of this guide is to inform you, so that you can make educated decisions that will enable a successful outcome. Since device selection often involves subjective and even emotional input, it is important to have professional criteria and a structured framework from which to work. This guide will ensure that your decisions are sound and based on solid, well-rounded information.

Breaking it down – four sections:

The Guide is divided into four separate sections. Each section advances from the previous one in sequence to provide a comprehensive start-to-finish reference. We encourage you to review each section in full, however the layout is designed to help pinpoint a specific area of interest as a quick reference tool.

PART 1 - GETTING CLEAR

Part one looks at establishing a baseline of knowledge before you start your project. How familiar are you and your team with industry best practices and common failure points to avoid? What is your five year delivery, management, and support strategy of high wear devices? What are your specific outcome goals and how will you measure results? And are you being realistic in your expectations for device utilization behaviors and compliance?

PART 2 - GETTING SMART

Part two addresses the ***major factors to consider*** when planning your project and provides specific ***criteria for device selection***. This is where the rubber really meets the road in terms of being informed. By delivering hard facts and valuable insights on real world ***pitfalls and hidden risks*** this section will leave no stone unturned in helping you become an educated device buyer.

PART 3 - GETTING READY

Part three uncovers key factors involved in pulling the project together successfully and gives a meaningful "heads up" to important behind the scenes steps. Like the mortar between the bricks, we lay out ***re-Sales, Go-Live***, and ***Post Installation Resources*** that can make or break a project.

PART 4 - GETTING STARTED

Part four provides ***ready-made professional tools*** that you can use to run your project. Handy forms such as: a detailed ***Project Check List, Device Evaluation Form***, and ***Site Assessment Request Form***, are included as a pullout appendix to the guide. Each is designed to help you put the information to use in an actual project.

PART 1 - GETTING CLEAR

ESTABLISHING A BASELINE

Like in any area of development it is important to establish a baseline when planning a POC device project to determine at what knowledge and experience level we are starting. In the LTPAC community in particular there is a very wide range of operating environments from paper-based facilities who have never implemented electronic devices for clinician documentation to those facilities who are on their second or third device refresh. IT and Nursing Staff also will have had varying degrees of exposure and experience depending on their backgrounds. Regardless of familiarity and experience level, establishing a baseline of information is a critical platform from which to start because it will help identify gaps in readiness. Here are some of the key considerations that you will want to include:

A. HOW MUCH DO YOU KNOW?

Having a well-organized format to capture relevant information will help you clarify your baseline. Here are some key questions to consider as you establish your starting point.

- Is this your first time implementing POC devices or is this a refresh of existing technology?
- How familiar are you and your team with current industry best practices for device utilization and selection by workflow? (i.e. Activities of Daily Living (ADL), Electronic Medication Administration Record (eMAR), MDS)
- Have you utilized multiple types of devices for ADL and EMAR or is your experience limited to only one type for each workflow?
- What worked well in your previous implementations and what challenges did you or your staff have with device utilization, management, and support?
- How familiar are you with the current technology offerings available and the advantages/ limitations of each?
- How familiar are you with differences between medical and consumer grade devices?

B. WHAT ARE YOUR GOALS FOR THE NEW DEVICES?

Surprisingly, many LTPAC facilities do not have defined results goals outlined prior to the implementation of new POC mobile computing devices. More commonly there exists generalized intentions and expectations for what the devices will do and how well they will do it. And unfortunately these are often just assumptions based on anecdotal information from others and conclusions formed from general experience with computers in personal life. To have a successful outcome means being able to select the right tools for the job and this requires having targeted goals that are realistic and well informed. Here is a selection of performance areas for qualifying and setting appropriate goals for your project.

IMPROVED CLINICIAN DOCUMENTATION

There is little question that implementing the right POC devices can help improve Clinician documentation. However just working toward “Improved Documentation” is too broad to measure. Some examples of targeted results may include:

- Having CNAs document ADLs in real time rather than at end of a run or shift.
- Improving eMAR workflow efficiency by eliminating battery constraints of current devices.
- Improve staff compliance with documentation protocols and best practice behaviors.
- Having LPNs record medication administration in real time at the cart rather than waiting till the end and taking device to nurses’ station.
- Improving the accuracy of data capture to more accurately reflect ADL services delivered.
- Improving the accuracy and timeliness of ADL data capture to maximize Medicare reimbursements.
- Improve staff satisfaction with documentation process and device utilization.

IMPROVED WORKFLOW EFFICIENCY

- Increase the amount of runtime associated with mobile devices and eliminate downtime associated with battery deficiencies.
- Improve access and availability of devices within the workflow to better enable real time documentation.

REDUCTION OF SUPPORT COSTS

- Increase longevity of EMAR devices on medication cart to last a minimum of 5 years.
- Reduce replacement and repair costs of EMAR devices on medication cart associated with AC power cords being damaged, falling off medication cart, and liquid spills on keyboard.

IMPROVED PATIENT/ RESIDENT SAFETY

- Reduce risk of residents tripping on AC cord and potential injury when the medication cart is parked, and laptop is being recharged. (*See Figure 1.1*)

IMPROVED PROTECTION OF PATIENT INFORMATION

- Improve protection of confidential patient information through use of privacy filters.
- Minimize risk of unauthorized data access through device vulnerabilities such as open data ports.

(Figure 1.1)

C. WHAT IS YOUR UNDERLYING BELIEF SYSTEM?

There are often underlying belief systems in play within a POC device implementation project. Underlying beliefs often dictate the selection of devices. These beliefs are typically related to:

- how a device will get used on a daily basis by staff;
- how it will be managed;
- how long it will last; and
- ultimately how effective it will be.

For this reason it is critical to form beliefs based on objective data and peer-reviewed best practices. Additionally, it is important that you are realistic in your beliefs to avoid unnecessary expense, struggle, and project failure. Remember, you have only one chance to get it right the first time.

Here are some examples of belief systems around device selection and their corresponding pros and cons. Use these as a guide to determine what the underlying beliefs are in your organization around POC devices and consider if they are sound or may need further data to support their development. Part 2 will provide comprehensive data that you can use in developing an informed belief system.

EXAMPLE BELIEF: Buy the best device for the job & have it last for at least 5 years.

PRO: Highly predictable successful outcome, lowest total cost of ownership.

CON: May be higher acquisition price.

EXAMPLE BELIEF: We think handhelds will make the staff document in real time.

PRO: Handheld devices can be a viable alternative to kiosks provided they are managed properly.

CON: Tablets alone will not drive documenting behaviors or habits. Documenting behaviors must be managed, encouraged and enforced by leadership.

EXAMPLE BELIEF: We think CNAs should carry their POC devices in their pockets.

PRO: Convenience and ease of access.

CON: Pocketsize consumer handhelds have significant battery limitations which leads to heavy device management by user and a lack of dependable performance.

D. WHAT IS THE CONDITION OF YOUR WIRELESS INFRASTRUCTURE?

It is important to assess your wireless infrastructure in advance of developing and implementing a device strategy. The best device in the world will not work well on a wireless network that has dead spots and overloaded access points

TIP: Having a company that specializes in wireless infrastructure perform the assessment will help ensure the accuracy of the information and prevent failure points upon go live. (See Appendix for information on getting a Wi-Fi or network assessment).

- When was the last time a professional wireless site assessment was performed?
- Are there sufficient access points to connect seamlessly to the network?
- Are there dead spots or areas of spotty coverage within a clinical workflow pathway?
- What speed do mobile devices need to run on for your network (e.g. 2.4 GHz, 5 GHz)?

E. WHAT IS THE LEVEL OF STAFF READINESS?

Ultimately the clinical staff will be the ones who determine how successful a POC implementation project really is. The degree of enthusiasm, support, compliance, and care that they bring to the implementation will literally make or break the project. For this reason it is imperative to get them involved early in the selection process and ensure that they have the right information to make educated decisions. Starting with a staff readiness assessment can shed light on areas of team strength that can be leveraged and potential areas of weakness that must be bolstered ahead of time. Specific considerations to help assess staff readiness include:

- What is the experience level of the clinical staff with POC computing devices?
- What is the attitude of the staff towards using computing devices for documentation?
- Do they see it as an improvement or an impediment to their workflow over paper?
- Is the clinical staff a positive group or are there HR issues that can sabotage the project?
- Does the clinical staff work well as a team or are there many new or temporary hires?
- How does the staff readiness vary by facility or site?
- Are there staff members that would be eager to be “Super Users” who can train others?
- What is the condition of the relationship between the DONs and clinical staff at each site?
- What is the level of supportiveness of the DON at each site or facility?

SUMMARY: PART ONE

LET'S REVIEW: In PART 1: GETTING CLEAR we discussed how to establish a baseline of knowledge before you start your project. We continued with defining specific results goals for the project and learned how to assess if our belief systems were in line with a successful outcome. Our wireless infrastructure was examined for best performance and we evaluated our staff to take advantage of team strengths and prepare for additional support where needed.

You are now ready to move to the next section, PART 2 – GETTING SMART!

PART 2 - GETTING SMART

There currently exists a great deal of unfamiliarity and misinformation in the LTPAC community relative to the selection of mobile POC devices. Smaller and understaffed IT departments, limited budgets, and paper-based recording methods have led to limited experience and expertise in the dos and don'ts of setting up a dependable mobile computing environment. Fear not. This is where the rubber meets the road in terms of mobile POC device education. In part two you will gain significant knowledge about devices, their pros and cons, and the choices you have in front of you.

DEVICE CLASS

MEDICAL GRADE VS. CONSUMER GRADE

Perhaps the most important place to start when selecting the right tools for the job is understanding the fundamental difference between *Medical Grade* devices and *Consumer Grade* devices. While mobile computing devices may look similar on the surface they are most certainly not created equal and more importantly not designed for the same purposes. These critical design differences between devices relate directly to device functionality, durability, and longevity and will significantly impact the success and outcome of your project.

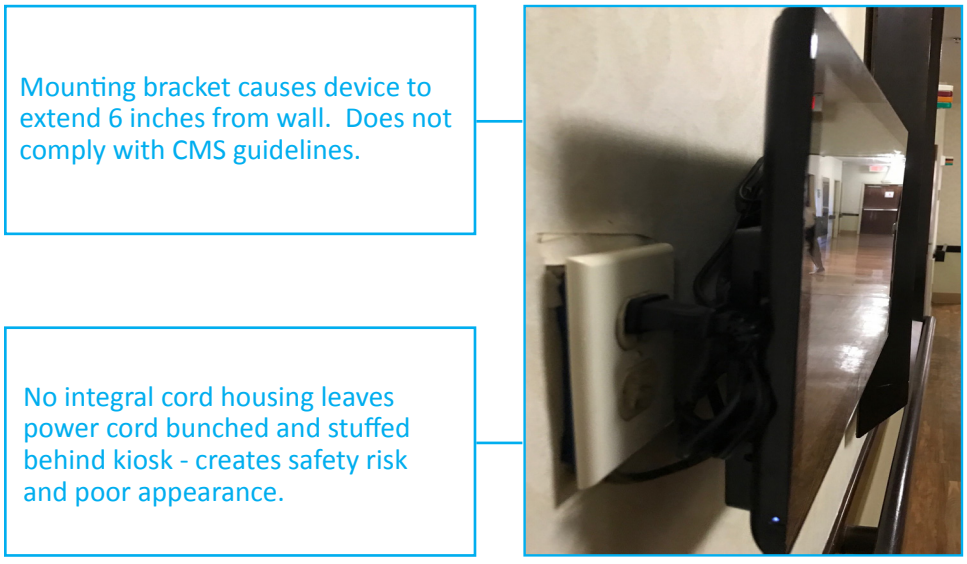
Consumer Grade Devices:

Consumer Grade devices are built with the primary intention to be used in the home or for standard business applications such as calendar, email, and multitasking. Their design focuses on showcasing the latest aesthetic treatments such as ultra-light housings and edge to edge glass screens. And because they are intended for highly customizable and interactive multimedia experiences, consumer grade devices feature multiple, easily accessible data ports and user adjustable gadgets. While consumer grade devices are available at attractive price points, this device class presents predictable challenges and failure points when used within heavy duty LTPAC workflows. Organizations choosing these devices will need to have proper expectations and consider the following limitations and risks:

- **Exposed Data Ports:** Multiple USB ports readily accessible on the side of the computer can lend itself to compromised data security of patient sensitive information. Additionally it poses risks of virus introduction and misuse by staff. Exposed USB ports can be used by staff to charge personal devices such as cell phones or be tampered with by resident guests. (See Figure 2.1)

(Figure 2.1)

- **Touchscreen Functionality Limitations:** Consumer grade devices utilize Projective Capacitive (PCAP) touch-screen technology which works the electricity in the body transmitted through the skin. It is designed for pinch-and-expand and swiping interaction for photos and other applications. Accordingly, this technology is not designed to withstand the repeated pressure of several hundred thousand touches in the same location over time as would be the case in an ADL application. From a user experience standpoint this can mean developing dead spots on the touchscreen that could prevent proper documentation. Additionally because PCAP screens work only with the conduction of electrical current in the skin, they are resistant to other input modes that occur in real world documenting such as: pens, tapping ID badges against the screen, fingernails, and gloved hands.
- **Cleaning Challenges:** Consumer grade electronics feature plastics and plastic treatments that provide a soft tactile sensation to the end user as part of their design. This plastic is not designed to withstand the bleach and other hospital grade cleaners without deteriorating and breaking down. Additionally the exposure of open data ports, keyboards, and non-sealed enclosures makes resistance to moisture virtually impossible.
- **HIPAA Privacy Concerns:** Protecting patient information arguably requires a multi-faceted approach. One important component is the use of privacy filters on computer screens used in common areas such as hall-ways to prevent the unwanted viewing of patient data during documentation. Currently consumer grade electronics do not come available with embedded privacy filters behind the touchscreen. Using a privacy filter would mean purchasing separate, adhesive privacy filter laminates and fitting them to each device manually.
- **Mounting Challenges:** Consumer grade devices such as touchscreen all in one (AIO) computers and tablets do not come standard with the necessary VESA plate and bracket for wall mounting. Mounting these devices on the wall for ADL capture will require purchasing separate VESA plates and wall mount brackets and then manually retrofitting them to each device. This is a labor-intensive process that can add significant time and cost to a device implementation project. Additionally, since consumer products are not designed specifically for use within the LTPAC environment, the physical fit of these mounting brackets may not comply with CMS guidelines of a maximum 4” protrusion from the wall. Finally, it is important to be aware that consumer grade devices do not provide an integral method of housing the power brick and six-foot power cord which can create a disorganized appearance when installed.



(Figure 2.2)

- **Enterprise Support Challenges:** POC device projects in larger LTPAC systems of 10 or more facilities often rollout over many months and sometimes implementations last several years. Because the market for consumer grade devices is so competitive, manufacturers compete to produce the latest cutting edge technology and terminate production of previous models. The life cycle of a typical consumer grade device is approximately 12-16 months. Those planning multi-stage implementations may very well run into their devices being discontinued midway through a project.
- **Warranty Period:** Consumer grade devices come with a standard one-year warranty and can usually be upgraded to a three year warranty for additional cost at the time of purchase. Comparatively, good medical grade devices start with a standard three-year warranty and can be upgraded to full five-year coverage at a nominal cost.
- **Refresh Cycle and Total Cost of Ownership:** Facilities considering consumer grade devices for mobile POC will need to plan refresh periods of every two to three years with potential for multiple replacements due to breakage in between. This is driven primarily by use of softer materials, lighter duty ratings, and lower mean time between failure (MTBF) of their components. It is not uncommon for facilities to replace 30% of their laptops on medication carts each year due to breakage from dropping or liquid spillage. Replacement costs and refresh costs must be factored into the total cost of ownership when assessing a five year total return on investment. (See Figure 2.3)

Example: Consumer Grade 22" Touchscreen AIO Mounted on Wall

	Purchase Price	**$ 800.00**
+	**Extended Warranty Price (3 Year)**	**$ 95.00**
+	**Privacy Filter Laminate Price**	**$ 45.00**
+	**Wall Mounting Bracket/ VESA Bracket Price**	**$ 65.00**
	Subtotal	**$1005.00**
+	**Replacement Cost (3 Year Refresh)**	**$1005.00**
	Total 5 Year Cost of Ownership	**$2010.00**

(Figure 2.3)

- **Battery Power Limitations:** Perhaps the single biggest challenge in any mobile EHR implementation is the inherent limitation of battery life and the need to recharge. Commercial grade devices such as laptops and tablets, which are intended for portability, fall short of required battery power needed for total mobility to run consistently for three shifts in a Skilled Nursing Facility (SNF). When a battery needs to be recharged it forces the clinician to secure the device to the wall outlet for up to 90 minutes.

  Additionally, as batteries age and wear, battery run time will continually decrease with this type of device and thus the requirement to recharge will become very frequent. Typical life of a consumer grade battery is 500-1000 charging cycles before it will drop to a charge retention level of 50% or below. With a standard charging rate of three times per day this means getting an expected lifespan of only 165 – 350 days. (See Figure 2.4a and 2.4b)

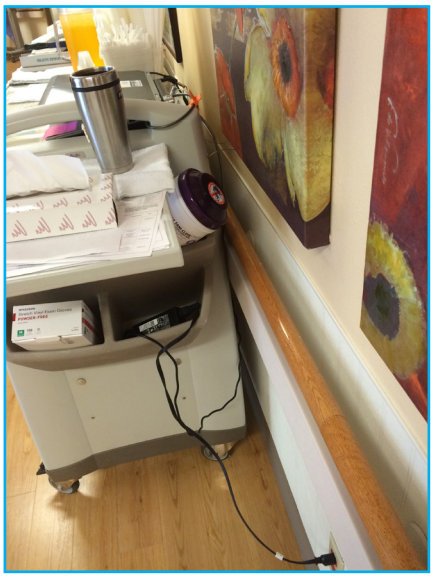


Figure 2.4a

Figure 2.4b

Medical Grade Devices

Medical Grade devices refer to a classification of computers that are built specifically for the healthcare environment. They are designed to meet the rigorous demands of targeted clinical workflows like ADL capture and eMAR and achieve dependable results related to each application. Capable of providing maximum dependability under continuously heavy duty cycles for five to seven hours, they have come to be recognized by the LTPAC industry as the best practice for achieving predictable and successful EMR outcomes. Here is a look at the design elements that are found within the medical grade device classification.

- **Zero Exposed Data Ports:** The objective of the POC device is confined to helping caregivers maintain effective documenting behaviors within their assigned workflow. Good medical grade devices are designed to prevent misuse of the computer for personal or ancillary applications, and unauthorized access by having zero exposed data ports. Port access in these devices is protected and locked making it available only to IT staff when needed.
- **Protecting Patient Data-HIPAA**: Most clinician documentation that takes place in a mobile EHR environment will occur with the clinician's back facing a hallway or open area. For this reason, it is possible to have patient data visible to unauthorized onlookers who may be in the vicinity or walking by. Adding a HIPAA privacy filter

to all screens is an effective and inexpensive way to help ensure patient privacy, protect vulnerable data, and minimize risks for exposure to legal issues. Manufacturers of high quality medical grade touchscreens will offer embedded privacy filters as part of their touchscreen design. By installing the privacy filter behind the LCD screen upon assembly, it will ensure the full touch functionality and cleaning ability of the device screen and will eliminate the need to manage a separate high wear accessory.

- **Healthcare Plastics**: One of the hallmarks of medical grade devices is the use of healthcare plastics. These plastics are formed with special ingredients that make them resistant to bacteria growth and tolerant of hospital-grade cleaners. It is the combination of antimicrobial properties and acceptance of bleach-based cleaners that make them highly desirable in the LTPAC environment. And because these antimicrobial properties are an integral component of the plastic itself they cannot wear off after years of cleaning. Importantly, this is not the case with aftermarket coatings or antimicrobial spray treatments that are applied to consumer grade devices.
- **Fan-less Processing**: Healthcare environments have a constant battle against the transmission of bacteria and make great efforts to minimize the opportunities for bacteria spread. Wall-mounted and desk-mounted PCs with internal cooling fans are a common dust and bacteria trap that are difficult to clean regularly. For this reason medical grade POC devices are designed to provide fan-less processing with very low heat build-up. They can be placed readily in hallways without concern for attracting and trapping dust, and in enclosures without concern for heat buildup.
- **Cleaning Management**: SNFs require the ability to properly clean and disinfect equipment regardless of whether the equipment comes in direct contact with a patient. Medical grade devices feature sealed housings and that provide protection against moisture and dust penetration, as well as resistance to liquid splashes or sprays. Additionally, since bleach based wipes and sprays are a commonly used method of mobile device sanitizing, special healthcare plastics found in medical grade devices will withstand routine cleaning without degradation or risk to internal components.
- **Touch Screen Functionality**: EHR applications provide an efficient and predictable mode of capturing ADL patient data through sequential touchscreen buttons. In real world implementation scenarios, the objects used by clinicians to input data varies widely among end users and will include: bare skin, fingernails, ID Badge, pen, and gloved hand. For this reason, good medical grade devices will include touchscreens that utilize Resistive Touch technology as it will allow unrestricted input by all methods encountered. Other screen technologies (e.g. Capacitive) will not respond to any input modality other than bare skin, can prove frustrating to end users and can trigger help desk calls to troubleshoot.
- **Enterprise Stability – Lifecycle**: Device standardization is an important part of achieving predictable and successful outcomes. The added work required for mid-cycle device evaluation and untimely refresh is costly, time consuming and may prevent the ability to standardize workflows efficiently. For this reason, it is imperative to select devices whose commercial availability will correspond with long range rollout planning and has a lifecycle of at least five years.

- **Secure Mounting Systems**: When selecting a medical grade touchscreen to mount on the wall it is important to select a device that includes a built-in wall mounting system as an integral part of the device. This will ensure that the kiosk can be mounted flush to the wall and comply with both CMS guidelines and professional appearance considerations. Additionally, consider kiosks that also include provisions for discreet power cord storage to avoid having the cord and power brick dangling from the device. (See Figure 2.5)

Figure 2.5

- **Hot Swappable Battery Technology:** Selecting medical grade devices that feature a hot swappable battery system eliminates the challenges experienced with battery limitations. A hot swappable battery device will enable 24 hour run time by using an advanced technology that allows convenient battery exchange while keeping the device fully running with an internal backup battery. Fully charged external batteries can be stored on board a mobile cart and swapped out at the beginning of each shift by the clinician without breaking their workflow. This will also eliminate the need to reboot devices thereby maintaining a live connection with patient data at all times. (See Figure 2.6)

Figure 2.6

CHOOSING BETWEEN WALL-MOUNTED, CART-MOUNTED & HAND-HELD DEVICES

One of the biggest questions that comes up when facilities are planning POC device projects is; which is the best type of device to use?

- Wall-mounted kiosks,
- Hand-held tablets, or
- Workstations on wheels (WOWs).

Each device type provides advantages and limitations. The pros and cons of each will need to be considered and tested prior to purchase. (See *Section 3 Getting Ready* for more information on Demo Equipment.) Unfortunately there is no silver bullet device that meets all requirements. Your selection will depend not only on the specific outcome and results your facility is targeting, but also on how much your team is willing to sacrifice (i.e. extra management, support requirements, failures, broken devices etc.) for that primary result.

> **TIP: We recommend using the following best practice guideline for evaluating which device type will best meet your needs. The device should provide a predictably successful outcome - which is defined as: it will work how you need it, where you need it and when you need it 99.9% of the time.**

Thus, if a device is unavailable based on being recharged or is left in the patient room it will present a challenge to deliver a successful outcome predictably.

ADL DEVICES

- **Best Practice:** For ADL capture the industry standard and best practice has long been and continues to be a wall mounted medical grade touchscreen (aka kiosk). Its popularity and success are due to the fact that it provides a stable and predictable charting portal for clinicians while maximizing durability, clean-ability, patient privacy and efficiency. Kiosks should be placed approximately 1 per every 6-10 rooms with supplemental units as needed in specialized areas such as Dining or Therapy. (See Figure 2.7)

Figure 2.7

- **Alternative Practice – Hand-Held Tablets**: Medical grade tablets can be a viable alternative to kiosks for ADL capture provided they include a system of wall mountable power stations that can be easily accessed by CNAs and incorporated into their active workflow. Like kiosk locations, the availability of powered docking

stations on the wall within every 6-10 rooms will help ensure the tablet remains fully charged at all times and will provide a centrally-visible and accountable location for its return. This also allows for the tablet to function as a touchscreen kiosk for use by other caregivers when it is docked. (See Figure 2.8)

Figure 2.8

- **Alternative Practice 2 – Workstations on Wheels (WOWs)**: WOWs can also be a viable solution for ADL capture. In fact there are some distinct advantages to a mobile workstation including: gaining a work surface that can be utilized for multiple functions, the ability to document at the bedside, and eliminating any challenges related to wall mounting installation. However, for facilities considering a mobile cart for ADL capture, it is imperative to select a technology with a hot swappable battery system to avoid the battery limitations of a laptop. (See Figure 2.9) Otherwise, the carts will end up plugged into the wall in hallways at all times. Also, since carts would roam in and out of patient rooms it is also necessary to plan for additional cleaning regimens to prevent the spread of bacteria. A good rule to follow when planning a mobile workstation fleet is to plan for a minimum of two workstations per hallway.

Mobile 24 x 7 medical grade mobile AIO with hot swappable battery no cords.

Ultra-small footprint means less space required and easier storage between shifts.

Figure 2.9

EMAR DEVICES

- **Best Practice – Mobile All in One Computer (AIO) With Hot Swappable Battery System**

  Almost SNFs and Assisted Living (AL) facilities utilize medication carts on wheels to dispense meds to residents. The average resident in a LTPAC facility receives 7-10 medications per pass, occuring up to three times per day. A computer mounted to the medication cart with available keyboard and mouse is necessary to accomplish all the required aspects of this complex workflow. While a laptop computer meets some of these requirements, it falls short of the need to be mobile consistently through three shifts due to its battery limitations and is highly susceptible to damage from dropping, spills and rapid cord removal. A medical grade AIO with a hot swappable battery system is ideal for this application in that it will run 24 x 7 without ever being plugged in. It can be paired with medical grade/washable keyboards and mice and easily adapted to any style or size. Readily accessible batteries can be held in small charging bays at the nurses' station and changed at the start of the new shift. Additionally, this type of device can help eliminate clutter on the work surface and provide a clean and professional look. (See Figure 2.10)

Figure 2.10

SUMMARY: PART TWO

LET'S REVIEW: In PART 2: GETTING SMART we covered a lot of ground. Starting with the important differences between Medical Grade Devices and Consumer Grade Devices, we discussed specific considerations for device selection and how each would impact the ability to achieve a Predictably Successful Outcome. We also provided recommended Best Practice device forms and alternatives for each major application and workflow. Here is a summary of topics discussed in Part 2:

- **HIPAA Privacy Filtration**
- **Secure Mounting Systems**
- **Data Security**
- **Cleaning Ability**
- **Bleach Tolerance**
- **Total Cost of Ownership**
- **Touchscreen Performance**
- **Warranty**
- **ADL Best Practices**
- **EMAR Best Practices**
- **Wall Mounted Solutions**
- **Hand Held Solutions**
- **Cart Mounted Solutions**

You are now ready to move to the next section, PART 3 – GETTING READY!

PART 3 - GETTING READY

The previous section gave you the background information to make informed decisions around device selection. You are now ready to take action! Part Three focuses on preparation and preliminary steps to help ensure that your selection process and outcomes are successful.

DUE DILIGENCE

The term "*predictable*" is repeated numerous times throughout this guide as a key value to guide you in the implementation of healthcare technology. The fact is that every clinical process in healthcare has an anticipated outcome based around the concept of predictability. Contemplate for a moment what the world of surgery and patient care would be like if there weren't predictable outcomes upon which to base actions. In short, it wouldn't be good.

While POC device selection may not come with as high of a risk profile as surgery, it would be irresponsible to make choices about resident care technology without having all the facts. Here is a list of important items you will want to have in place prior to purchase to help ensure that your outcome is not only predictable, but successful.

> **TIP: A good practice is to use a project binder to hold all pertinent documentation.**
>
> (See *Appendix* to request *Complimentary POC Project Binder and Kit*.)

- **MANUFACTURER DOCUMENTATION – RELIABILITY:** Unbeknown to most LTPAC facilities who purchase POC technology, the brand selected may not be the real manufacturer of the product. It is common for brand name technology companies to subcontract the design and manufacturing of their products to offshore third parties. Additionally, there are many off shore manufacturers who develop and sell wholesale generic "white box" products that can be private labeled and branded. While there is nothing inherently wrong with this process, it can make it difficult to know ahead of time what internal components are used with each batch and what level of dependability you can expect from them. For this reason, it is important to know the following specifics and get them in writing from the manufacturer.
  - Failure rates of the device as a whole.
  - Top three failure points based on overall failure rates.
  - Mean Time Between Failure (MTBF) of touchscreen (number of touches in same place).
  - Mean Time Between Failure (MTBF) of hard drive.
  - Battery life expectancy in recharge cycles.

- **MANUFACTURER DOCUMENTATION – END OF LIFE (EOL) AND END OF SERVICE (EOS):** Recently a major consumer brand discontinued a line of very popular laptop computers. This caused those facilities who invested in that technology to scramble for replacements unexpectedly. Since unexpected outcomes are clearly not the goal, it is important to ask the manufacturer to provide information and documentation on their EOL and EOS dates for the device models you are considering. That way you can make informed decisions ahead of time.

- **MANUFACTURER DOCUMENTATION –WARRANTY COVERAGE:** Knowing the term and type of coverage protecting your devices will help manage repairs when needed. It is also a good idea to get familiar with how the technical support/return-for-repair processes work and who to contact when support is needed. Paying attention to what customer responsibilities are indicated (e.g. troubleshooting, accessing serial numbers, shipping) will prevent frustration later. Request and keep a copy of all warranty coverage in your project binder.

- **MANUFACTURER DOCUMENTATION –REPAIR LEAD TIME AND PROCESS:** Even with low failure rates, it is not a question of if you will need a repair but rather when. Being knowledgeable on Service Level Agreements (SLAs) for repair turnaround times, warranty and out of warranty repairs, and warranty replacements is key. Also, it is important to understand if repairs are performed locally versus off shore, and whether they are made by the manufacturer itself or by a third party. This will have bearing on potential communication throughout the process.

- **MANUFACTURER DOCUMENTATION CLEANING CRITERIA – ACCEPTABLE CLEANERS:** Request official manufacturer guidelines in writing on recommended and acceptable cleaning methods and solvents. It will be important to know if special cleaners are needed or if certain standard hospital grade cleaners (e.g. bleach, Cavi Wipes etc.) would damage the device and void the warranty. This would obviously weigh into your decision making and knowing ahead of time will help the selection process.

- **PRICING FOR EQUIPMENT AND ACCESSORIES:** Price quotes for the devices being considered should stipulate all relevant details including the following:
    - Is this pricing quantity specific and if so how does it change with more or less units?
    - Does pricing include shipping, imaging and warranty or are those separate?
    - When does this pricing expire? 30 days, 90 days, 1 year, 2 years etc?
    - Do quantities proposed have to be purchased at one time or can it be spread out?

- **LEAD TIME AND AVAILABILITY:** There is a big difference between lead times of five days and lead times of five weeks. Nothing throws an unexpected curve ball into a project like having a scheduled "Go Live" date and suddenly finding out the equipment won't arrive in time. Since lead times vary greatly by manufacturer, it is important to find out ahead of time if the manufacturer can meet your schedule and if they are willing to commit to meeting specific fulfillment dates pre-purchase.

- **MINIMUM ORDER REQUIREMENTS:** It is often the case in larger projects and first-time projects that additional devices are needed after the initial purchase is made. Find out if there are any minimum order requirements to receive product or can additional product be purchased and received on demand at the same pricing. Nobody wants to find out after standardizing on and purchasing 100 devices, that it will take four weeks to get an additional three that are urgently needed.

- **SHIPPING CHARGES AND LOCATIONS:** Shipping charges vary greatly both in terms of cost and whether they are included in the pricing or charged separately. Knowing any related shipping costs ahead of time will help set realistic budgetary guidelines. It is also important to find out if the vendor will drop ship to multiple locations and whether there are additional charges for that service.

- **MOUNTING PROCESS AND INSTRUCTIONS:** For wall mounted and cart mounted devices, request that the manufacturer provide written instructions on their mounting process for your review. As indicated in Part 2, certain devices require more involvement than others to wall mount and cart mount. You will want to factor in additional accessories purchases if required.

- **INSTALLATION SUPPORT:** Most facilities conduct the installation of POC devices internally through facilities management staff. However, if you are considering third-party installation support,, learning the costs per device ahead of time makes it easier to factor into the overall budget.
- **BUDGET AND ROLLOUT SCHEDULE:** Final pricing negotiation make take place after the evaluation of devices, but at this stage you should have enough details and information to put together your budgetary guidelines and preliminary rollout schedule.

DEVICE EVALUATION – PILOT

- **STEERING TEAM:** Setting up a POC project steering team comprised of executive sponsors, team leaders, and super users will create a strong backbone for driving the project effectively. Careful attention should be paid to including positive players who are well respected within the organization and by their peers. The steering team should be familiar with project goals, criteria for selection, and have the ability to represent a consistent voice to the staff on behalf of the project.
- **ONSITE PRODUCT DEMONSTRATION:** Ask manufacturers to provide a demonstration of devices to the steering committee for evaluation. This provides committee members an opportunity to see application software in use prior to purchase and allows the team to test out any customization or adjustments. It is also an opportunity to see a mock installation to assess look and fit in a particular environment. For example: The idea of a using a large, wide format touchscreen may sound great in theory, but in practice it may be overkill. Having the manufacturer demonstrate the different options will give you the ability to see several sizes and models at once and choose the best ones for evaluation.
- **PILOT SITE SELECTION:** For organizations with multiple facilities or locations it will be beneficial to select one facility as the pilot site to conduct a full POC device evaluation. Attempting to conduct concurrent evaluations at multiple locations and geographies can be cumbersome and difficult to manage feedback. It will also be easier to get vendor assistance when the location is limited to one. That said, pilot site selection can be based on a number of factors including:
    - Site proximity to corporate offices.
    - Cooperation and attitude of staff toward change and electronic charting.
    - Longevity of staff employment with the organization at a particular location.
    - Cooperation and attitude of site management toward change.
    - Site proximity to airports for vendor support convenience.
    - New construction/ future model buildings vs. legacy buildings.

- **TEAM ORIENTATION:** The team orientation should include all representatives from the steering committee, site leadership, and site staff that will have any involvement or contact with the POC device evaluation. The better informed the team is in advance of the evaluation, the better the results will be. Team orientation should be conducted in several overlapping communications including a written letter or email to all staff, posted information bulletins in the staff lounge, and in-person presentations or discussions. Orientation should provide the following information:
    - The purpose of the device evaluation and why new devices are coming (goals).
    - The timeline for the device evaluation (start, finish).
    - What happens after the device evaluation and when?
    - Will they be getting these devices if they like them?
    - What participation levels are expected of them?
    - What type of feedback is expected from them? (*See Part 4, Evaluation Form*)
    - What, if anything, should the staff do differently during the evaluation?
    - Information about training on the new devices.
    - What to do and who to contact if there is a problem with a device during evaluation.
    - Assurance that there won't be any consequences to them if the device breaks during their use.

- **EVALUATION UNITS:** No charge evaluation units should be provided by the vendor. Make sure to clarify the length of the vendor's evaluation period and who is responsible for damage, loss and return of the device following evaluation. Also clarify the lead time for receiving evaluation units to ensure that it complies with the scheduled plan. Evaluation units should be scheduled to arrive 1-2 weeks prior to pilot to allow for unboxing, staging and configuration.

SUMMARY: PART THREE

LET'S REVIEW: In PART 3: GETTING READY we prepared for our device project go live with a lot of due diligence and dotting the "i's" and crossing the "t's." We put accountability on the manufacturer to provide validation of performance and pre-sale support. Here is a summary of all the topics we discussed:

- **Manufacturer Documentation for Failure Rates**
- **Manufacturer Documentation for EOL and EOS dates**
- **Lead Times**
- **Warranty Documentation**
- **Cleaning Instructions and List of Approved Cleaners**
- **Pricing**
- **Shipping**
- **Installation and Mounting**
- **Product Demonstration**
- **Setting up a Device Evaluation and Pilot**
- **Staff Orientation**
- **Evaluation Units**
- **Pilot Site Selection**

You are now ready to move to the next section, PART 4 – GETTING STARTED!

PART 4 - GETTING STARTED

GOING LIVE – TIME FOR THE SOUNDCHECK

Once selected and purchased, the new POC devices should arrive on-site a minimum of two weeks (ideally 30 days) prior to Go Live to allow for physical installation, network installation and testing with applications on network.

- **FACILITY PREPARATION:** Preparation of the facilities for wall mounted devices, wall mounted power stations and cart mounted devices will need to be completed at least one week prior to go live. Depending on which devices will be installed and the current environment at each location, this may include checking to make sure the medication carts have properly mounted arms, installation of AC outlets, and ethernet jacks.

- **STAFF TRAINING:** Clinical staff should be trained on the utilization of the new devices no more than two weeks prior to go live to ensure information retention. A conference room set up with individual workstations where classroom style training can be conducted in shifts works best rather than having a sample device with staff crowded around a single user. For devices with privacy filters this is especially true as it is very difficult for trainees to see anything on the screen if they are looking on from an angle. Routine training should also become part of a long term strategy after the initial push to go live.

- **DEVICE INSPECTION AND INSTALLATION**: Devices should be inspected, tested, physically installed and installed on the network at least one week prior to go live. This will allow time to correct any unforeseen problems and arrange replacements if there are any out of box failures (DOA) or damage during installation.

CONGRATULATIONS !

You are now ready to Go Live with your POC Devices! Please refer to the Appendix attached for available forms and support resources to assist you in your project.

We hope this has been a valuable resource for you and your organization.

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APPENDIX

COMPLIMENTARY AVAILABLE RESOURCES

The following is a list of additional resources to help you select the right devices for your project and assist in achieving a successful outcome.

These resources are offered as complimentary from Pioneer Solution Inc. in partnership with:

CareWorx™ SeniorCare

PointClickCare®

- **FRM 1001 – POC DEVICE IMPLEMENTATION PROJECT CHECK LIST**
- **FRM 1002 – DEVICE SELECTION CRITERIA SCORE CARD**
- **FRM 1003 – DEVICE STAFF EVALUATION FORM**
- **FRM 1004 – TEAM ORIENTATION LETTER TEMPLATE**
- **FRM 1005 – TEAM ORIENTATION BULLETIN TEMPLATE**
- **KIT 1010 – POC DEVICE PROJECT BINDER**
- **FRM 1006 – SITE ASSESSMENT REQUEST FoRM**

To request any of the above forms and tools or for more information on selecting the right device for your project please email **LTPACGUIDE@Pioneersolution.com**.

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Pioneer Solution Inc. 238 Benton Court City of Industry, CA 91789

www.pioneer solution.com (909) 468-9757