



**To Roll or Not to Roll:
Just One Consideration for a Clinical Device Strategy with Sunrise Clinical Manager™**
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INTRODUCTION

Now, more than ever, the Electronic Health Record (EHR) is under scrutiny for valid usability. Organizations have poured hours and resources into design sessions only to wind up befuddled as to why adoption is slow and users are complaining. It is certainly crucial to ensure the application solutions meets the needs of clinicians to deliver safe quality care; but ask yourself – does the *right* user have access to the *right* information with the *right* interface at the *right* time? And if so, what's the right device to coordinate it all?

What follows is a prescription to choose the best device which will speed EHR adoption and bring smiles to users.

THE PROBLEM(S)

- Aggressive Clinical Information System (CIS) projects will affect multiple roles in different ways.
 - Concurrent projects to implement Computerized Physician Order Entry (CPOE), Clinical Documentation (Clin Doc), device integration, facility boards, RxWriter, Sunrise™ Pharmacy, eMAR, KBMA, and ED Manager in close proximity make it desirable to approach device strategy from an enterprise point of view.
- Rapidly evolving technology and high demand for commercial devices is stressing your IT fleet lifecycle management.
 - Users are demanding to use SCM on their iDevice.
 - As soon as you begin assessing the iPhone – the iPad is released.
 - Workstations on wheels seemed like a perfect answer; but WOW! are they tough take up and down the stairs, keep out of the hallways when not in use, keep charged, maintain connectivity, and keep clean.
 - Mobile medical device manufacturers have begun introducing devices equipped to perform in clinical settings but are not quite where you need them to be, now!
- No clear device strategy exists across the enterprise.
 - The physicians want hand-held devices to round. The nurses want carts to store and/or transport medication and supplies. Transport teams want something that can go in an elevator. Critical care areas want bedside computers with dual screens so they can monitor vital signs/hemodynamics, and document, place orders, review results, etc. The ED doesn't want anything that can easily walk out the door or become a weapon. Psychiatric units may not want anything with cords and cannot have computers in the rooms.
- Workflow assessments typically focus on clinical content, the ability to data mine, and the “look and feel” without assessing how different device solutions may impact the physical work of the clinicians.
- No decision-making body is in place to ensure the right device will be selected for the right user in the right situation at the right time and subsequently, to scan the horizon for the next generation of device(s).

THE APPROACH

1. Form a device strategy team made of the following stakeholders:
 - a. Clinicians: nurses, case managers/social workers, ancillaries, rehabilitation therapies (PT, OT, SLT), respiratory therapy, pharmacists and physicians.
 - b. Subject Matter Experts (SMEs) for Clin Doc, CPOE, eMAR, BCMA, RxWriter, Orders/Results, SIS/SCM Desktop Integration, Facility Board, and ExitCare; Other CIS application SMEs.
 - c. Information Technology (IT) for interoperability, sustainability, and infrastructure.
2. Define selection criteria and assign weights for each attribute with your device strategy team. Consider the following areas:
 - a. Physical device attributes
 - b. Operations
 - c. Infrastructure
 - d. Compatibility with clinical environment.
 - e. Electronic Health Record (EHR) Related Workflows:
 - i. Patient Information
 - ii. Electronic Medication Administration Record (eMAR)
 - iii. Bar Code Medication Administration (BCMA)
 - iv. Computerized Physician Order Entry (CPOE)
 - v. Signature Manager
 - vi. Clinical and Physician Documentation
 - vii. Orders Reconciliation
 - viii. Medication Management
 - ix. Patient Admissions, Transfers, and Discharges
 - f. Links to provide expert information directly into the hands of your clinicians and physicians.
 - g. Need to access other clinical information systems applications.
3. Define vendor criteria – (Consider: green, longevity, history of prior engagement, and community impact) (*For a complete list of vendor attributes recommend by HIMSS, go to www.himss.org .*
4. Define clinical workflows, roles, and use cases for device assessment.
5. Define type(s) of device needed. Assess needs by use-case and assess what type of device would best fit – desktop, mobile cart (with/without medication drawers, hand-held, tablets, iPhones, iPads, netbooks, etc.).
6. Vendor down select (Selection criteria, proposal and bid reviews, device trials, vendor/device ranking).
7. Hold a device fair for further down selection and allow those attending to score the devices. Use the score and weighting criteria to assist in the assessment.
8. For each device category pilot top two in operational settings.
9. Make the final device selection.

THE TOOLS

The following quantitative assessment rubric is provided to assist you during your device selection process. The weighting criteria should be established by the device team and should address each use case you have put together. Using the scale for each vendor, multiply (0/5/10) whether the vendor is able to meet the consideration and use this to score each feature.

General Considerations <Use Case#: Description>	Weight	0=Not at all 5= Somewhat Meets 10=Meets				
		Vendor 1	Vendor 2	Vendor 3	Vendor 4	Vendor 5
Physical						
Mobility/Maneuverability						
Ability to accessorize (docking stations, medication drawers, privacy screens, patient monitoring, external keyboards)						
Ability to alarm if device goes beyond institution walls or monitoring point						
Ability to remotely wipe any locally stored data if device goes beyond institution walls or monitoring point						
Light Weight (Hand held)						
Screen clarity and size (resolution and real-estate for applications)						
Battery life						
Ease of charging and changing battery						
Device reliability (Electrical safety when exposed to fluids)						
Subtotal						
Operational						
Ability for help desk to support (break/fix SLA)						
Footprint of charging stations						
Total cost of ownership						
Ability to lock down device (i.e., no USBs, no rogue applications, etc.)						
Ability to lock display settings (ensure application display settings are not modified)						
Serviceability (Vendor SLA)						
Device Login (Single Sign on?)						
Subtotal						
Infrastructure						
Device image stability						
Wireless connectivity - ability to stay connected during patient transport or rounding						
Multi-purpose or single purpose						
Interoperability – SCM and associated clinical applications						
Fleet lifecycle management						
Data security/encryption						
Device security /Anti-theft						
Subtotal						

Implementation						
Ease of training						
Level of support for go-live and after (elbow-to-elbow versus CBT)						
Device readiness						
Competencies/Device check-off for users						
Ownership of device deployment (IT or vendor)						
Imaging the devices						
Integrated testing						
Subtotal						
Clinical Environment						
Durability - able to sustain fall from bedside/tray height						
Ability to disinfect						
Patient safety – Option for rooms where suicide precaution is a factor						
Degree of impediment to patient care						
Effect on patients' impression of the organization						
Visibility of patient information for unattended devices						
Subtotal						
General Subtotal						

Workflow Considerations <Use Case # - Description	Weight	0=Not at all 5= Somewhat Meets 10=Meets				
		Vendor 1	Vendor 2	Vendor 3	Vendor 4	Vendor 5
SCM Patient Information						
Ease of log-in						
Patient List* *Consider facility board capability						
Review Orders and Results						
Review Clinical Documentation (Structured notes and flowsheets)						
Review Documents						
Review Clinical Summary						
Review Clinical Viewer						
Check Orders Flags						
New Orders, Results ,and Documentation Flags						
Review Visits, Height/Weight , Health Issues, and Allergies						
Access to SCM links and integration points						
Subtotal						
eMAR/KBMA						
Obtain medications from medication room, medication cart, supply room, refrigerator(s), or automated medication dispensing machines.						

Transport medication(s) and supplies to the bedside.						
Waste and sharps disposal						
Administer medications at bedside (consider how to transport medications to bedside safely)						
Review eMAR as reference for orders reconciliation						
Handoff and transfer of accountability						
Review when and what medications are due						
Future BCMA capability						
Emergent Events (Code Blue, RRT)						
Review medication administration history (Order/Task Summary)						
KBMA compatible (bar code scanner, holster/storage, ability to charge scanner from device if not integrated,						
Co-signature at point of care						
Co-signature with Signature Manager						
Subtotal						
CPOE						
Order entry at bedside						
Order entry on the unit						
Order entry in the hospital						
Remote order entry						
Accessibility for telephone orders						
Room to Room Rounding (changing units, floors, buildings)						
Emergent Events (Code Blue, RRT)						
Signature Manager						
Order management						
Orders reconciliation						
RxWriter						
Subtotal						
Clinical and Physician Documentation						
Clinical Documentation - Structured Notes						
Clinical Documentation - Flowsheets						
Desktop Integration						
Patient Monitoring Integration (Vital Signs)						
Point and click functionality						
Data entry - alphanumeric						
Patient Height/Weight						
Allergy Manager						
Health Issues/Problem List						
ExitCare						
RxWriter/Patient Instructions						
Subtotal						
Workflow Subtotal						

Use Case Summary	Vendor 1	Vendor 2	Vendor 3	Vendor 4	Vendor 5
Use Cases					
<Use Case 1: Description> - Subtotal (General + Workflow Subtotal)					
<Use Case 2: Description> - Subtotal (General + Workflow Subtotal)					
<Use Case 3: Description> - Subtotal (General + Workflow Subtotal)					
<Use Case 4: Description> - Subtotal (General + Workflow Subtotal)					
<Use Case 5: Description> - Subtotal (General + Workflow Subtotal)					
Grand total					

Using this rubric should enable you to make an informed decision and ensure that you are comparing apples to apples through the process of selecting a device. Should you need more information or details please contact VCS at 610.444.1233 or vcs@getvitalized.com.