

Medication Administration 2004

FOCUS: Medication Administration Application Performance

Medication Administration 2004. Bar code technology is emerging as a solution in support of closed loop medication administration and the “Five Rights” – the right patient receiving the right medication at the *right* time by the *right* route in the *right* dosage. These systems are all based upon positive patient identification at the time of medication administration. In addition, Bar Code Medication Management (52%) was cited by healthcare industry professionals as their number one choice for most important computer application in the next two years (15th Annual HIMSS Leadership Survey sponsored by Superior Consulting). This extract, from the 2004 Medication Administration report ¹ is the first such study from KLAS regarding this class of products and systems. The report is intended to provide a snapshot of current automation in regards to closed loop medication administration.

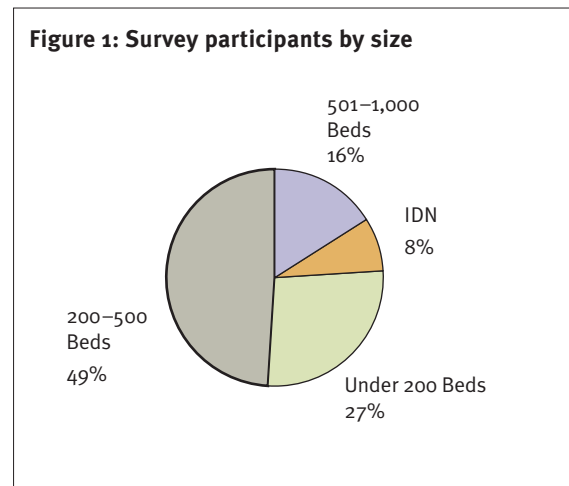
Systems and technology surrounding the area of medication management are a growing market due to the focus of both regulatory agencies and consumer groups calling for patient safety initiatives, specifically in the area of medication administration. Government involvement and increased consumer awareness are demanding healthcare providers improve patient safety and reduce medical errors. The LeapFrog Group, Institute of Medicine, Joint Commission on Accreditation of Healthcare Organizations and President Bush have all identified automation as the method by which to accomplish these objectives. A quote from one survey participant, when asked to identify quantifiable benefits of implementing a medication administration system, clearly illustrates that

in reality these systems do provide a mechanism to improve patient safety. *“We eliminated the two to three medication errors per day per unit that we were experiencing. We have identified a 59 to 70% decrease in incident reporting. We are seeing an overall significant improvement in patient safety. We have seen much improved communication between nursing and our pharmacy.”*

PUTTING CLIENT COMMENTS INTO PERSPECTIVE.

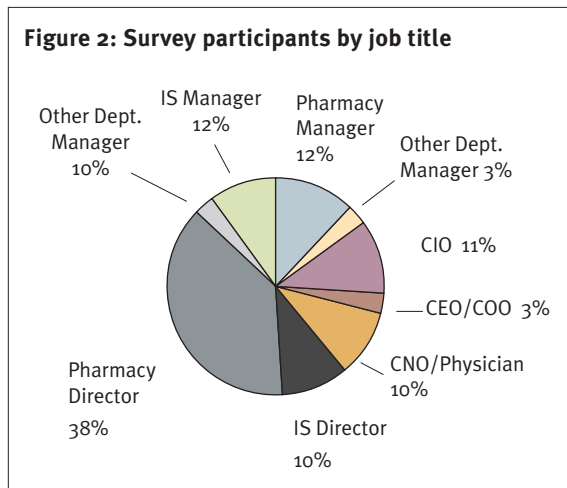
Overall, KLAS interviewed a total of 105 survey participants, 27% of which represent organizations of fewer than 200 beds, 49% 200-500 beds, 16% 501-1,000 beds, 8% IDNs allowing the report to enjoy a good cross-section of data. See Figure 1.

Figure 1: Survey participants by size



1. Medication Administration Study, September 2004, contact KLAS@ www.healthcomputing.com or call toll free 866.268.9438

KLAS interviewed a broad array of medication administration stakeholders (Figure 2) including pharmacy management (50%), IT management (31%), physicians and nurses (10%), executive management (3%) and other departments (3%) producing a healthy split between IT (31%) vs. non-IT (69%).



Summary. The KLAS 2004 Medication Administration report features three vendor products: Bridge Medical MedPoint, Siemens Med Administration Check (MAC), and McKesson Admin-Rx. Vendor ratings are compared to one another as well as with the KLAS Healthcare Information Technology (HIT) norm (average of all vendors and all products in the KLAS database).

Fourteen other vendors who did not qualify for the full-body report were included in the – AMTSystems PatientSafe, Baxter Patient Care System, Cardinal Health, Care Fusion wCareMed, Cerner Power POC Care Mobile, Eclipsys Knowledge-Based Medication Administration, GE Centricity Admin in Motion, IntelliDOT, MDG Medical Corporation, MEDITECH BMV, Mediware, Misys CPR, Omnicell SafetyMed, and QuadraMed PC Affinity Med Charting. These vendor products have not yet met the minimum KLAS standards for statistical confidence to be included in the main body of the report.

Medication Administration system vendors collectively score above the KLAS HIT norm for overall performance. Today's performance suggests the emergence of a strong product market. With the industry looking for systems and technology to increase patient safety, reduce medical errors, and

Figure 3. Medication Administration – Overall Vendor Rankings. Based upon 40 Performance Indicators

Ranking	Vendor/Product	Total Score (Out of 100)
1	Bridge Medical MedPoint	88.5
2	Siemens Med Administration Check	84.9
3	McKesson Admin-Rx	78.8

improve communication between pharmacy and nursing, and also to meet intense pressure for these solutions from regulatory and consumer groups, the market share is expected to grow and seriously increase as seen with the 14 vendors in the Addendum.

Performance Measurements. As seen in Figure 3, Bridge Medical clearly leads and sets the scoring stage in vendor performance for Medication Administration systems. The result – it appears that the use of medication administration products is an emerging and growing market and the vendors in this market space are satisfying customer needs.

Another way to obtain additional insight into both the vendor and industry delivery capabilities is to drill down into the low and high scores of each vendor, across all indicators. For example, as seen in Figure 4, implementation within Budget/Cost is a common strength. The variability in the lowest scores combined with a direct comparison of the positive commentary quickly identifies strengths and challenges among the vendors.

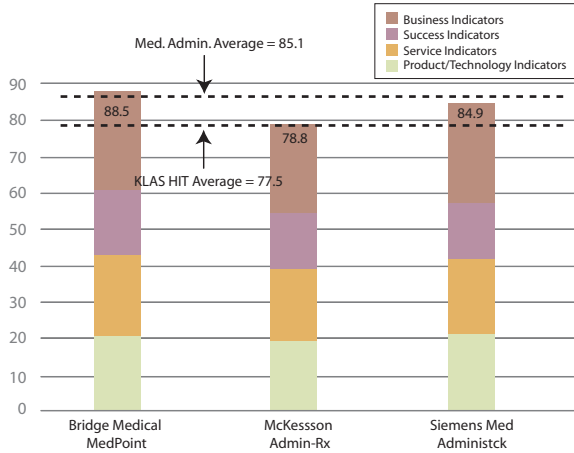
The *Product/Technology Indicators* include 10 factors that are product and technology related. The *Service Indicators* include 10 factors that deal with a vendor's performance during the installation and performance with post-live support. The *Success Indicators* include eight factors that span the expectations before and after the sale. The 12 *Business Indicators* are asked as simple Yes/No questions, whose results are reported as a percentage of affirmative (yes) responses. Business indicators provide more of an overall view of the system and include questions such as "Would you buy the product again?"

Figure 5 breaks down, on a 100-point scale, the numeric value (performance score) of each area measured. Medication Administration systems perform above the KLAS HIT norm and vendor product average. The yellow

Figure 4. Vendor Performance Highs and Lows (scale 1-9, where 1=poor and 9=excellent).

VENDOR	LOWEST	HIGHEST
Bridge Medical MedPoint	7.2 3rd-party product works vendor product	8.4 Implementation within w/ budget/cost
McKesson Admin-Rx	6.5 Good job selling	7.7 Implementation within budget/cost 7.7 Quality of implementation staff
Siemens Med Administration Check	6.7 Quality of documentation	8.5 Quality of custom work

Figure 5: Market Segment Performance Rating Measurement Summary

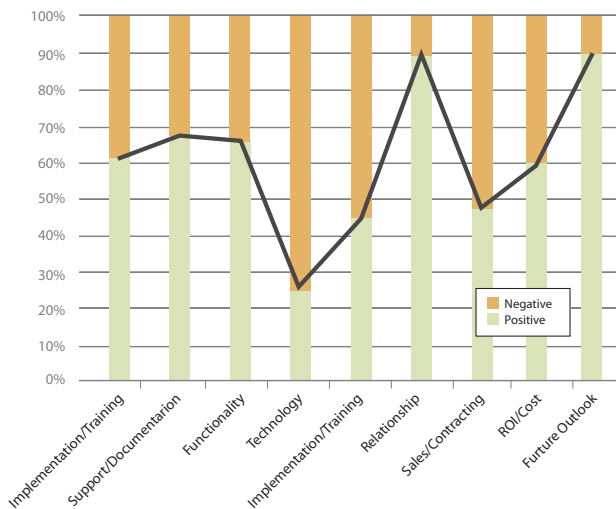


line represents the overall average of the Medication Administration systems and the red line represents the KLAS HIT average (all vendors, all products in the KLAS database).

Why Vendors Are Selected or Not Selected

Analysis of client win/loss commentary provides insight into the vendor selection process and the reasons of why a vendor is or is not selected. Bridge Medical (69%) and McKesson (53%) score high in functionality, while Siemens (88%) and McKesson (60%) score high in single vendor integration. Functionality was cited most often as the reason why a vendor was not selected (a common theme across many industry segments).

Figure 6: Medication Administration Percent Positive Commentary

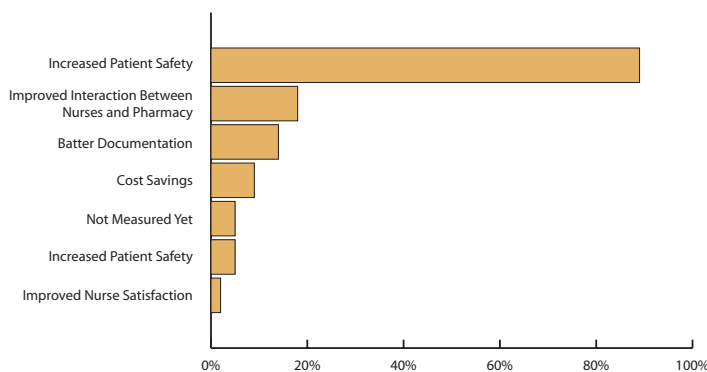


Difficult Care Settings When Implementing a Medication Administration System

ICU (31%) and Labor & Delivery (31%) were the two most common areas where survey participants indicated difficulty in implementing medication administration technology. This was due to the immediateness of drugs needed in both of these medical specialty areas.

Comparing the positive commentary across performance indicators, Figure 6, provides additional insight into customer success and challenges. The black line represents the KLAS HIT average positive commentary for ALL commentary categories. Collectively, the vendors are strong in relationships and future outlook, and face challenges in technology.

Figure 7: Quantifiable Benefits



Benefits. Regarding quantifiable benefits (Figure 7), the majority of respondents (89%) indicated that Increased Patient Safety is the “top” quantifiable benefit. Improved Communication with Pharmacy and Nursing was a distant second at (18%) and Better Documentation was third (14%).

Offer to Canadian Healthcare facilities. Many Canadian healthcare facilities and organizations use vendors who supply solutions unique to Canada. KLAS – the organization rating IT

vendors in this and subsequent issues of ElectronicHealthcare.com – is willing to gather confidential and candid data from Canadian healthcare executives and provide access to the results to the all data contributors. The vehicle that will be used is the web based KLAS vendor evaluation form found at www.healthcomputing.com under “rate your vendor” button. If you have comments, suggestions or questions about this vendor-rating feature please send an email to editors@longwoods.com.

About KLAS

KLAS, founded in 1996, is the only research and consulting firm specializing in monitoring and reporting the performance of healthcare information technology (HIT) vendors and products. Our senior management staff and advisory board average 25 years of healthcare information technology experience.

KLAS, in concert with thousands of Healthcare Executives, CIO's, Directors, Managers and Clinicians has created a dynamic database of information about the performance of HIT vendors. The KLAS database represents the opinions of healthcare executives, managers and clinicians from over 4,500 healthcare facilities and more than 500 different products. The information is continually refreshed with new performance evaluations and interviews daily. The KLAS database is dynamically and effectively used by:

- Healthcare organizations to align expectations with a vendor's actual performance, assist in strategic planning and contract negotiations and to validate decision processes;
- Vendors to monitor their performance in comparison with competitors;
- Consultants for current performance information on a specific company or product;
- Healthcare investment firms to evaluate publicly traded HIT company performance and trends or the competition for a new entrant.

CNIA with the support of Bell Canada is pleased to announce the introduction of its eLearning program.



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