



AC Group Releases 2003 Mid-Year EMR Survey

Extensive Functional Evaluation Ranks Top Electronic Medical Record Applications

A White Paper By:

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For more information on the detailed 120+ page report, visit the web site at <http://www.acgroup.org> or contact Mark R. Anderson at 281-374-0394 or by email at mra@acgroup.org



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Extensive Functional Evaluation Ranks Top EMR Applications

(October 12, 2003) – AC Group, Inc. released their 2003 annual report on electronic medical record (EMR) applications at the MGMA conference in Philadelphia, PA. This annual report provides physician groups with one of the most comprehensive evaluations of leading EMR applications. According to the author, Mark Anderson, Healthcare IT Futurist, “The current pressures in the industry for increased efficiency and better care delivery, coupled with significant advances in technology and applications, have enabled EMRs to take center stage. The challenge with EMRs is that it is very difficult for the average physician to effectively evaluate its’ options”. The survey is an extensive evaluation of functional criteria that can serve as a valuable tool for the vendor selection process. The entire report is over 120 pages long and covers all 6 levels of technology for the physician’s office.

Summary Results: To insure that the application met the real needs of physicians, a detailed study was conducted by AC Group, Inc. during the Spring of 2002 and then updated again in the Spring and Fall of 2003. The AC Group annual EMR report is based on 18 month of research and the cumulative results of their 40-page questionnaire which included 3,436 functional questions divided into 23 categories and 4 methods of operations.



The four methods of operation included:

- Desktop capability (845 questions)
- Remote access capability (845 questions)
- Wireless capability (874 questions)
- PDA and mobile capability (872 questions)

The 23 functional categories included sections on the Institute of Medicine’s (IOM) requirements for a Computerized Patient Record (CPR), along with functional questions relating to operational areas including prescriptions, charge capture, dictation, interface with laboratories, physician order entry, decision support and alerts security, reporting and documentation. This annual report provides physicians with a comprehensive ranking of 33 of the top EMR vendor applications. The 33 vendor responses were evaluated on their ability to provide the required functionality. The EMR evaluation included a weighted point value for each of the 3,436 question based on the following criteria:

- The current product **doesn’t** offer this functionality
- The current product **provides** the functionality for an **additional cost**
- The current product **provides** the functionality from a **third party**
- A future product enhancement in the **next three months** will provide the functionality
- A future product enhancement in the **next six months** will provide the functionality
- A future product enhancement in the **next year** will provide the functionality
- The product **provides** the functionality currently

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Three important caveats to keep in mind as you review the results:

1. Literally hundreds of products are identified as EMRs, and while a good faith effort was made to contact as many vendors as possible, many chose not to respond.
2. The survey findings are based on what *vendors* said about their *own* products.
3. Performance was assessed only for those vendors that ranked in the top 10 in self-reported functionality.

When evaluating functionality by different methods of input, the ACG team determined that today's technology allows end-users the same functionality no matter where they are located. In 95% of the cases, the vendor's application functioned the same on the desktop, from a remote location, and from a wireless PC device. Therefore, the EMR evaluation team was able to consolidate Desktop, Remote and Wireless functionality into one rating. The only major difference was the functionality on a PDA device – given that the screen size is limited. Therefore the EMR team created a separate rating for PDA devices. Simply stated, a number of the vendors that were highly ranked for the triad of desktop, remote and wireless, either did not offer a portable device or had one with limited functionality. When their overall performance ranking included low or nil scores for PDA their ranking dropped precipitously. The review team decided to split the rankings into the desktop triad and rank the vendors separately by PDA performance.

The vendors that were included in the study were:

- A4 Health Systems
- Allscripts Healthcare Solutions
- Alteer
- Amazing Charts
- Amicore
- CHARTCARE, Inc.
- Cliniflow (Monarch)
- Companion Technologies Corporation
- DR Notes
- e- MDs
- eClinicalworks
- e-MDS
- GE Medical Systems Information Technologies
- Greenway Medical Technologies
- iMedica Corp.
- McKesson
- MDAnywhere
- MEDCOM Information Systems, Inc.
- Medical Information Systems, Inc.
- Medical Manager Health Systems
- Medical Office Online
- MedInformatix
- MediNotes Corporation
- Misys Healthcare Systems
- NextGen Healthcare Information Systems
- Noteworthy Medical Systems
- Orion Systems International Inc
- Physician Micro Systems, Inc.
- Praxis
- Smart Doctor
- Task Technologies (Chartlogic)
- Vitalworks
- WebMD Intergy

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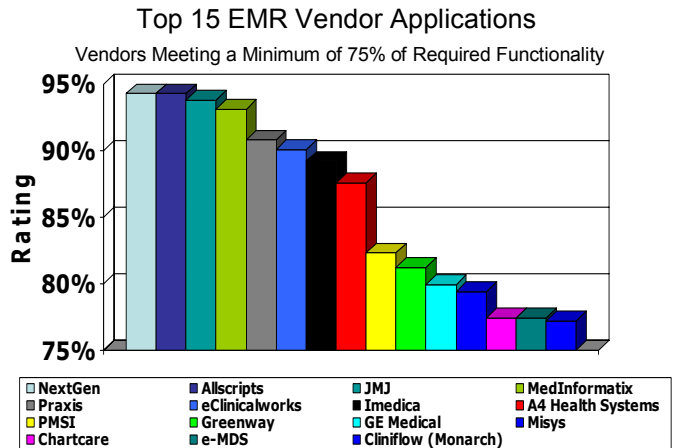
2003 Mid- Year EMR Functionality Results

Based on our findings, the top seven EMR application vendors overall were:

- NextGen Healthcare Information Systems, Inc., www.nextgen.com
- Allscripts Healthcare Solutions, www.allscripts.com
- eClinicalWorks, www.eclinicalworks.com
- iMedica Corporation, www.imedica.com
- JMJ Technologies, Inc., www.jmjtech.com
- Infor-Med Medical Information Systems, Inc. - PRAXIS EMR™, www.praxisemr.com
- Medinformatix, www.medinformatix.com

With the acquisition of **Advanced Imaging Concepts**, the leading Document Imaging Company, **Allscripts Healthcare Solutions** improved their overall functionality and are virtually tied with **NextGen Healthcare Information Systems**, Inc. for top honors (meeting more than 94% of the required functionality) in the annual EMR functionality report.

Five other vendors, A4 Health Systems, Greenway Medical, GE Medical, Misys Healthcare Systems, and Physician Micro System, Inc., scored 4 stars (80-89% of required functionality), an increase from only 3 vendors in the 2002 survey. Six other vendors, Chartcare, Inc., e-MDS, Cliniflow (Monarch), Medinotes, McKesson's Horizon Ambulatory Care, and Smart Doctor received 3 stars.



When evaluating vendor applications based on current and future functionality, certain vendors are expected to increase their overall functionality by more than 25% by next year. Companies like **Monarch Medical International** are projected to increase their overall rating 66% to 82% while **MD Anywhere** is projected to increase overall functionality from 47% to 72% by the end of 2004. Finally **WebMD Integrity** is expected to increase their overall functionality above 85% by year-end 2004. Taking into account these planned enhancements, twelve EMR vendors will exceed 80% of the required functionality by end-year 2003.

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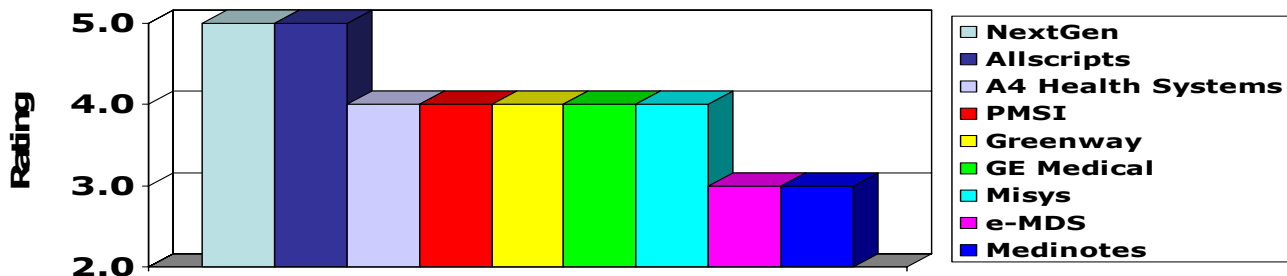
Rating vendors only on functionality is not always helpful since certain vendors only sell their products to specific market demographics. For example, of the 33 vendor applications evaluated, 11 sell to smaller physician offices with 1-4 physicians, and only 12 sell to practices with more than 100 physicians. To help physicians understand which vendors are best for them, we have attempted to divide the marketplace based on practice size.

Large Practices (50 to 149 Physicians)

For larger practices with over 50 physicians, the top applications are from NextGen Healthcare Systems (94%) and Allscripts Healthcare Solutions (94%). One additional vendor, iMedica Corporation (89.2%) scored very high in the EMR functionality rating. A4 Health Systems (87.6%) Physician Micro Systems, Inc. (82.3%), Greenway Medical (81.2%), GE Medical (79.9%) and Misys (79.4%) received a 4-Star rating while Chartcare and E-MDS received a 3-Star rating.

Total Points	Desktop	Remote Access	Wireless Notebook or PC Tablet	Total w/o PDA	Rating	Users
NextGen	95.4%	95.1%	92.4%	94.4%	5	12,000
Allscripts	94.5%	94.3%	94.1%	94.3%	5	8,000
Imedica	89.5%	88.9%	89.3%	89.2%	4	800
A4 Health Systems	88.1%	87.6%	87.2%	87.6%	4	5,000
PMSI	82.3%	82.4%	82.3%	82.3%	4	10,000
Greenway	82.1%	81.6%	80.0%	81.2%	4	2,600
GE Medical	80.5%	80.2%	78.9%	79.9%	4	20,000
Misys	80.4%	80.0%	77.7%	79.4%	4	N/A
Chartcare	77.9%	77.8%	76.6%	77.4%	3	2,900
e-MDS	77.9%	77.8%	76.6%	77.4%	3	N/A
Medinotes	76.2%	75.7%	75.9%	76.0%	3	3,400

Top EMR Vendor Applications
Larger Physician Practices 50 – 149 Providers
 Vendors Meeting a Minimum of 75% of Required Functionality



5 Star Rating System

Based on 2,564 Functional Questions Divided Between 24 Categories

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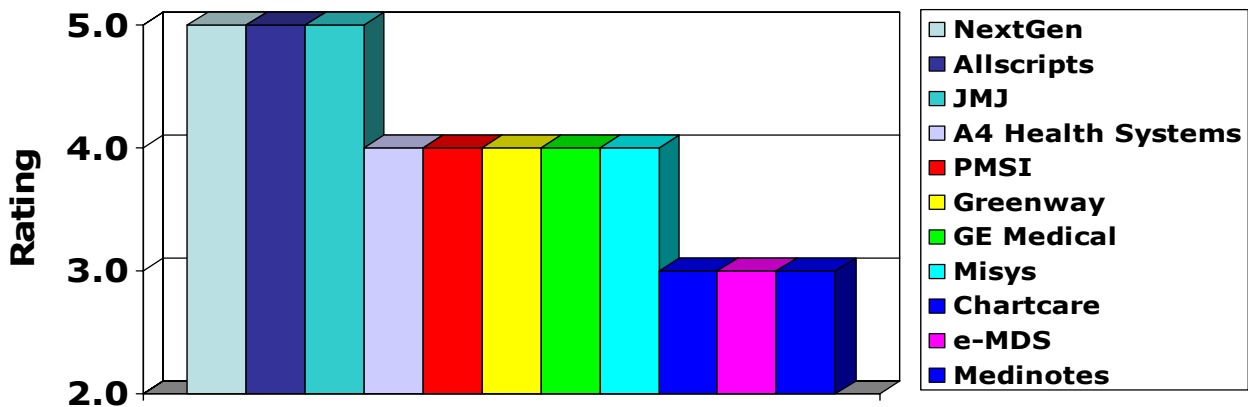
Extensive Functional Evaluation Ranks Top EMR Applications

Medium Sized Practices - (16 to 49 physicians)

For Mid sized practices, the top of the functionality rating, NextGen Healthcare Information Systems (94%) and Allscripts Healthcare Solutions (94%). NextGen and Allscripts were the only EMR vendors that received a 5-Star rating over the past two years. However, before a practice runs out to purchase a system from one of these vendors, the practice needs to determine which vendors are best for them and which vendors are interested in selling and supporting their sized practice. In most cases, many of these vendors market primarily to larger practices.

Total Points	Desktop	Remote Access	Wireless Notebook or PC Tablet	Total w/o PDA	Rating	Users
NextGen	95.4%	95.1%	92.4%	94.4%	5	12,000
Allscripts	94.5%	94.3%	94.1%	94.3%	5	8,000
JMJ	93.9%	94.1%	93.4%	93.8%	5	4,000
A4 Health Systems	88.1%	87.6%	87.2%	87.6%	4	5,000
PMSI	82.3%	82.4%	82.3%	82.3%	4	10,000
Greenway	82.1%	81.6%	80.0%	81.2%	4	2,600
GE Medical	80.5%	80.2%	78.9%	79.9%	4	20,000
Misys	80.4%	80.0%	77.7%	79.4%	4	N/A
Chartcare	77.9%	77.8%	76.6%	77.4%	3	2,900
e-MDS	77.9%	77.8%	76.6%	77.4%	3	N/A
Medinotes	76.2%	75.7%	75.9%	76.0%	3	3,400

Top EMR Vendor Applications
Larger Physician Practices 16 – 49 Providers
 Vendors Meeting a Minimum of 75% of Required Functionality



5 Star Rating System

Based on 2,564 Functional Questions Divided Between 24 Categories

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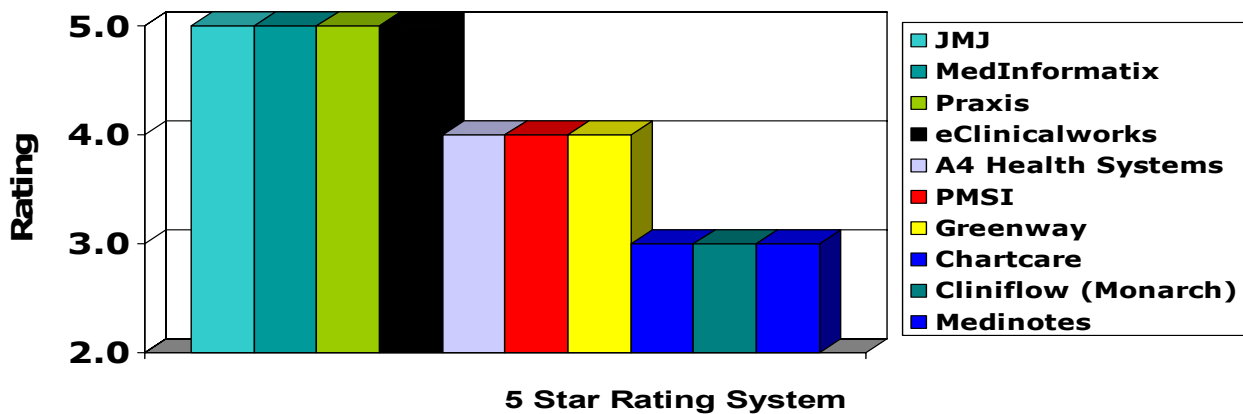
Extensive Functional Evaluation Ranks Top EMR Applications

Small Practices - (5 – 14 Physicians)

For smaller practices with 5 to 14 physicians, eClinicalworks, JMJ Technology, Praxis, and A4 Health Systems meet more than 85% of the current requirements. PMSI, Greenway Medical, Chartcare, Cliniflow, Medinotes, and Smart Doctor rounded out the top 6 EMR vendor applications for the small physician office. The rating by vendor is displayed below:

Total Points	Desktop	Remote Access	Wireless Notebook or PC Tablet	Total w/o PDA	Rating	Users
JMJ	93.9%	94.1%	93.4%	93.8%	5	4,000
MedInformatix	93.2%	93.0%	93.1%	93.1%	5	1,900
Praxis	90.8%	90.9%	90.8%	90.8%	5	4,600
eClinicalworks	91.1%	88.5%	88.6%	90.1%	5	3,650
A4 Health Systems	88.1%	87.6%	87.2%	87.6%	4	5,000
PMSI	82.3%	82.4%	82.3%	82.3%	4	10,000
Greenway	82.1%	81.6%	80.0%	81.2%	4	2,600
Chartcare	77.9%	77.8%	76.6%	77.4%	3	2,900
Cliniflow (Monarch)	77.4%	77.4%	76.9%	77.2%	3	200
Medinotes	76.2%	75.7%	75.9%	76.0%	3	3,400

Top 10 EMR Vendor Applications Mid-Sized Physician Practices 5 – 15 Providers Vendors Meeting a Minimum of 75% of Required Functionality



Based on 2,564 Functional Questions Divided Between 24 Categories

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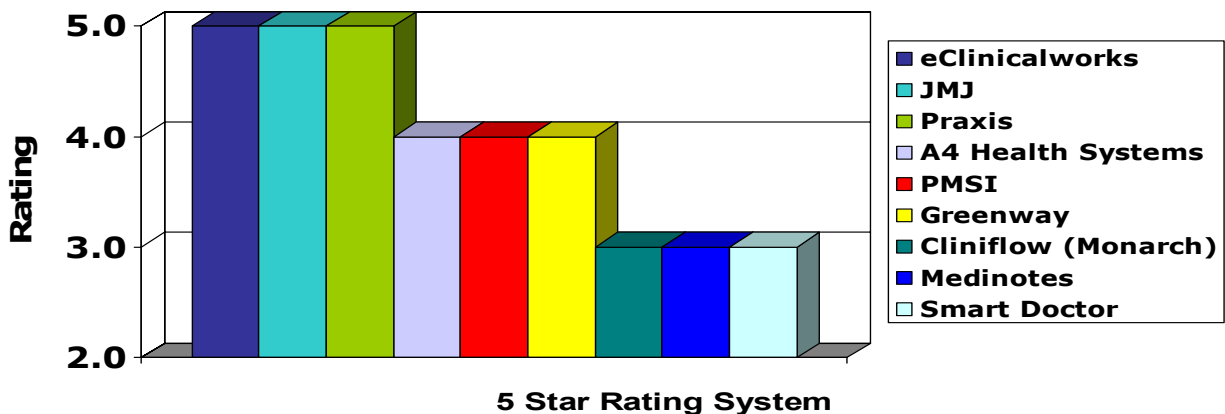
Extensive Functional Evaluation Ranks Top EMR Applications

Small Practices - (1 – 4 Physicians)

For smaller practices with less than 5 physicians, eClinicalworks, JMJ Technology, Praxis, and A4 Health Systems meet more than 85% of the current requirements. PMSI, Greenway Medical, Cliniflow, Medinotes, and Smart Doctor rounded out the top 6 EMR vendor applications for the small physician office. The rating by vendor is displayed below:

Total Points	Desktop	Remote Access	Wireless Notebook or PC Tablet	Total w/o PDA	Rating	Users
JMJ	93.9%	94.1%	93.4%	93.8%	5	4,000
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A4 Health Systems	88.1%	87.6%	87.2%	87.6%	4	5,000
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Greenway	82.1%	81.6%	80.0%	81.2%	4	2,600
Cliniflow (Monarch)	77.4%	77.4%	76.9%	77.2%	3	200
Medinotes	76.2%	75.7%	75.9%	76.0%	3	3,400

Top 10 EMR Vendor Applications Small Physician Groups 1 – 4 Providers Vendors Meeting a Minimum of 75% of Required Functionality



Based on 2,564 Functional Questions Divided Between 24 Categories

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When evaluating vendor applications based on current and future functionality, six EMR vendors are expected to increase their overall functionality by more than 5% by next year. As shown on the next page, by the end of 2003, companies like **Monarch Medical International** are projected to increase their overall rating 77% to 82% while **MD Anywhere** is projected to increase overall functionality from 47% to 72% by the end of 2004. Finally, **WebMD Intergy** is expected to increase their overall functionality above 85% by year-end 2004. Taking into account these planned enhancements, twelve EMR vendors will exceed 80% of the required functionality by end-year 2003.

	Company	Current	Future	% Change
1	MDAnywhere	47.1%	71.8%	52.5%
2	JMJ	58.0%	79.5%	37.2%
3	WebMD Intergy	67.1%	85.0%	19.0%
4	Alteer	49.7%	58.5%	17.8%
5	e-MDS	70.6%	78.1%	10.6%
6	Cliniflow (Monarch)	77.2%	82.1%	6.1%

How much does an EMR system cost? There are a broad range of costs associated with the purchase and implementation of a system. These include:

- Software licenses, which are typically sold on a per-workstation basis
- Hardware, consisting of both individual personal computers for office and exam rooms as well as central database servers, network hardware, and modems
- Training and implementation, which involves pre-installation planning as well as on-site training of individual users
- Software support, represented as an annual contract typically sold as a percentage of the total sale, providing both help desk functions (technical support) and software updates
- Hardware and network support, which is primarily on-site or telephone support for hardware-specific issues and problems
- Typical prices range from \$15,000 to \$30,000 per physician, including all of the components noted above.

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Conclusion:

Technology is only a tool and if used effectively can improve the flow of information and potentially improve the efficiency of the physician's practice. However in reality, if "change" is not embraced, the probability of success is very low. We learned in the 1980's that we needed to change the process of billing for services – or we would not be paid in a timely and effective manner. Therefore, the practice of medicine, from the business point of view, changed. Now with newer technologies, government regulations, and the right financial incentive, physicians will begin embracing new levels of technology that were not available just 5 years ago. But where does a physician in a small practice turn to learn about the 100's of technology choices? The physician can spend hours searching and evaluating all of the opportunities. Or maybe in the near future, physicians will be able to look towards leaders within their own medical specialty for guidance and knowledge.

More about the Author:

Mark R. Anderson, FHIMSS, CPHIMS – Healthcare IT Futurist

Mr. Anderson is one of the nation's premier IT research futurists dedicated to health care. He is one of the leading national speakers on healthcare and physician practices and has spoken at > 300 conferences and meetings since 2000. He has spent the last 32+ years focusing on Healthcare – not just technology questions, but strategic, policy, and organizational considerations. He tracks industry trends, conducts member surveys and case studies, assesses best practices, and performs benchmarking studies.



Prior to forming AC Group, Inc. in February of 2000, Mr. Anderson was the worldwide head and VP of healthcare for META Group, Inc., the Chief Information Officer (CIO) with West Tennessee Healthcare, the Corporate CIO for the Sisters of Charity of Nazareth Health System, the Corporate Internal IT Consultant with the Sisters of Providence (SOP) Hospitals, and the Executive Director for Management Services for Denver Health and Hospitals and Harris County Hospital District.

His experience **includes 20+ years working with physician offices, 7 years in the development of physician-based MSO's**, 17 years with multi-facility Health Care organizations, 15 years Administrative Executive Team experience, 6 years as a member of the Corporate Executive Team, and 9 years in healthcare turnaround consulting. Mr. Anderson received his BS in Business, is completing his MBA in Health Care Administration, and is a Certified Fellow with HIMSS.

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