

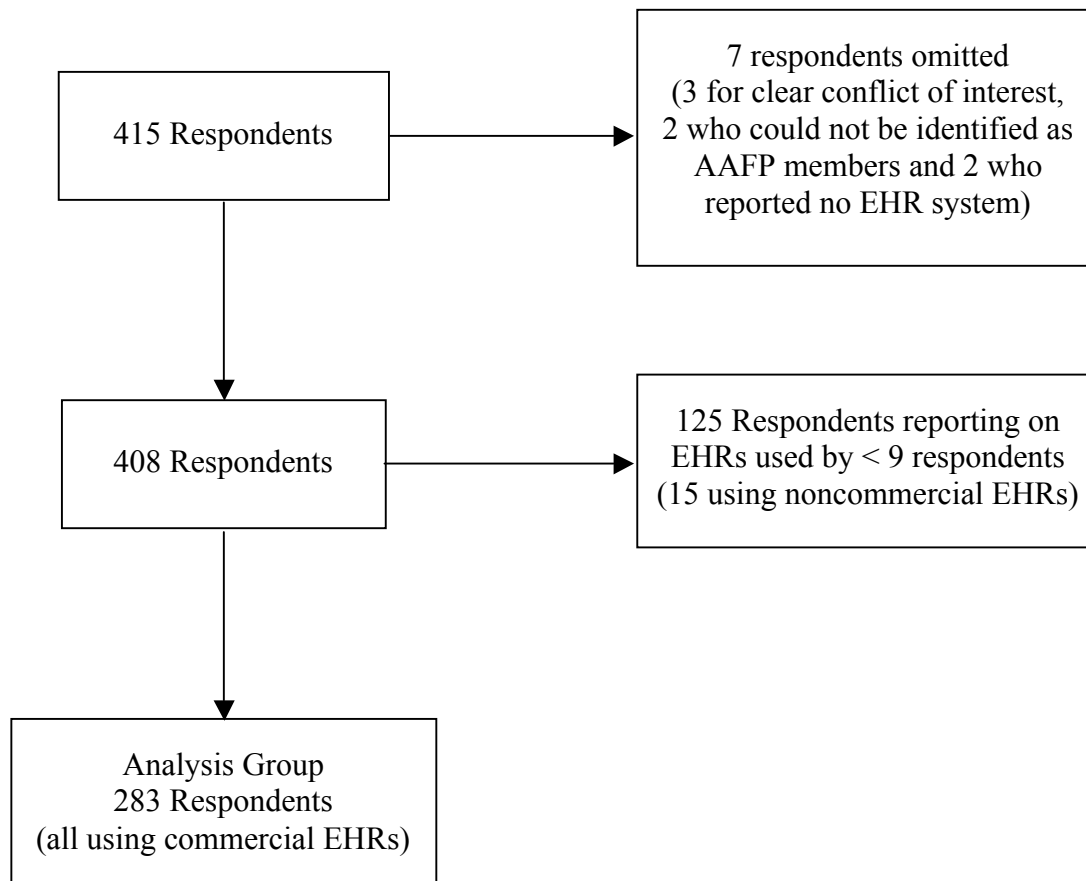
Appendix to “An EHR User-Satisfaction Survey: Advice from 408 Family Physicians”

Edsall RL, Adler KG. *Fam Pract Manag.* October 2005:29-35. Available online at www.aafp.org/fpm/20051000/29aneh.html.

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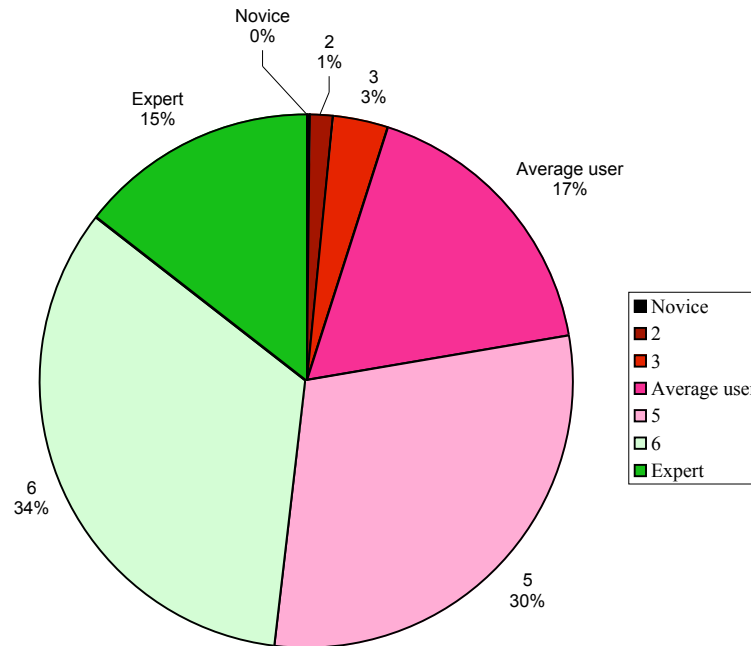
Respondent flowchart



Of 408 usable responses, 49 records included no phone numbers, but of the rest, no more than two shared any one area code and telephone exchange, suggesting that no more than two of the responses with phone numbers came from any one practice location.

Chart: Self-reported skill level

Responses to the question, "In general, and not just in terms of this EHR system, how would you rate yourself as a computer user?"



Respondents' experience with the EHR systems reported (months)

	Minimum	Average	Maximum
Practice Partner (N = 58)	2	60.1	192
Centricity (Logician) (N = 55)	3	47.6	107
e-MDs (TopsChart) (N = 36)	1	27.3	60
EpicCare (N = 28)	6	42.2	132
SOAPware (N = 27)	2	34.9	94
HealthMatics (N = 17)	3	27.4	92
NextGen EMR (N = 16)	3	25.8	69
Misys EMR (N = 16)	5	23.1	51
Amazing Charts (N = 11)	3	23.0	49
eClinicalWorks (N = 10)	1	10.7	18
Alteer Office (N = 9)	9	23.9	48
All 408 Responses	0	39.2	300

Chart: Practice-size distribution for 11 EHR systems

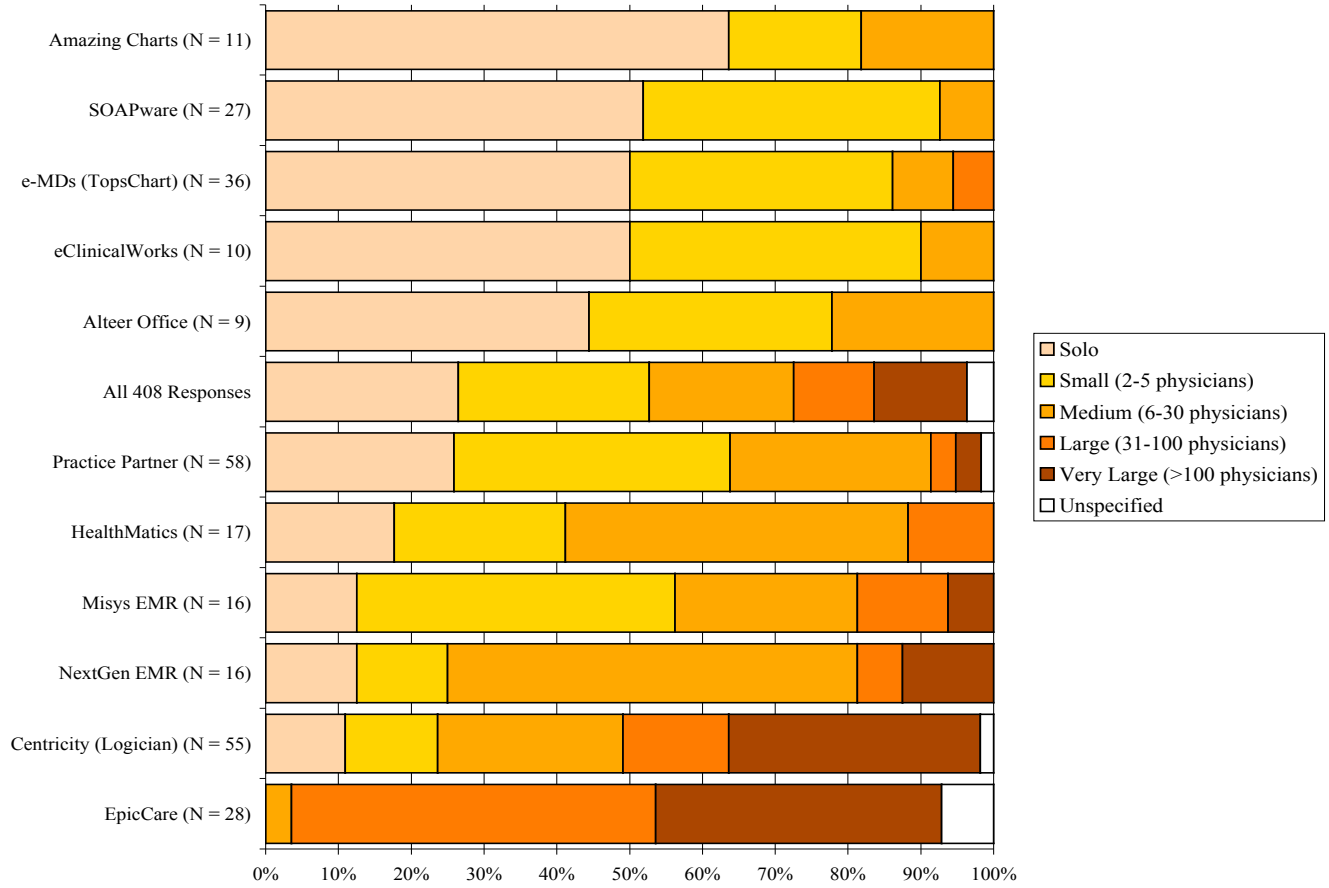
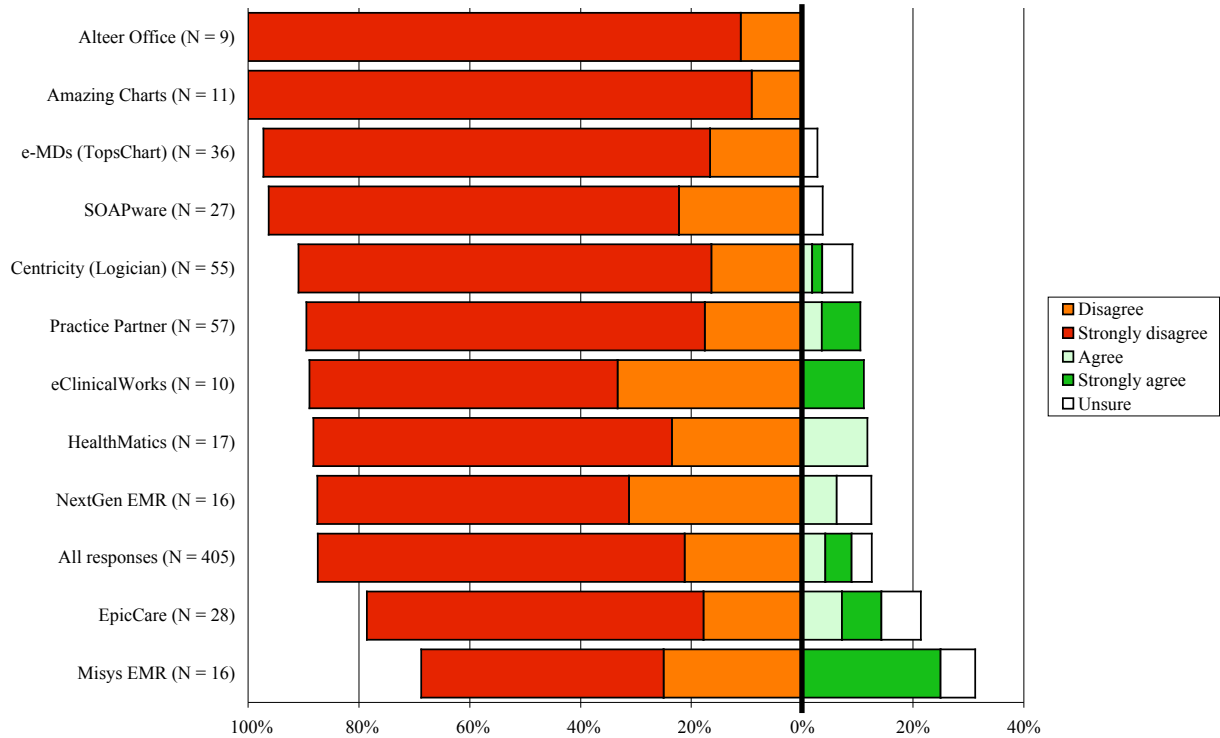


Chart: Going back to paper records

If I could go back to paper-based records with no financial penalties, I would do so.



Software interfaces

The survey asked about five software interfaces – automatic connections between the EHR system and other potentially related systems: The practice management system (PMS), a laboratory system, a radiology system, a hospital information system and the information systems of commercial pharmacies. Every such interface has the potential to eliminate duplicate data entry and increase efficiency of operations. From the “interface not present” responses, it appears that only the PMS interface and lab interface are present in a majority of the EHR installations reported. Approximately 55 percent (224) of respondents say they do not have an interface with a radiology system, 65 percent (264) have no hospital system interface, and 72 percent (294) have no commercial pharmacy interface. By contrast, only 30 percent of respondents (123) have no PMS interface, and only 33 percent (133) have no lab interface. The number of interfaces present varied considerably from system to system among the 11 we analyze here (see “Average number of software interfaces present,” below). EpicCare was the EHR with the most reported interfaces; the average number installed in the 28 EpicCare installations reported on was 3.7 out of the possible 5. At the other end of the scale, SOAPware and Amazing Charts each averaged less than one interface per installation. Fifteen of the 27 SOAPware installations had no software interfaces, as did eight of the 11 Amazing Charts installations. This is not surprising, given that these two programs are relatively simple and inexpensive, and seem often to be installed as stand-alone systems.

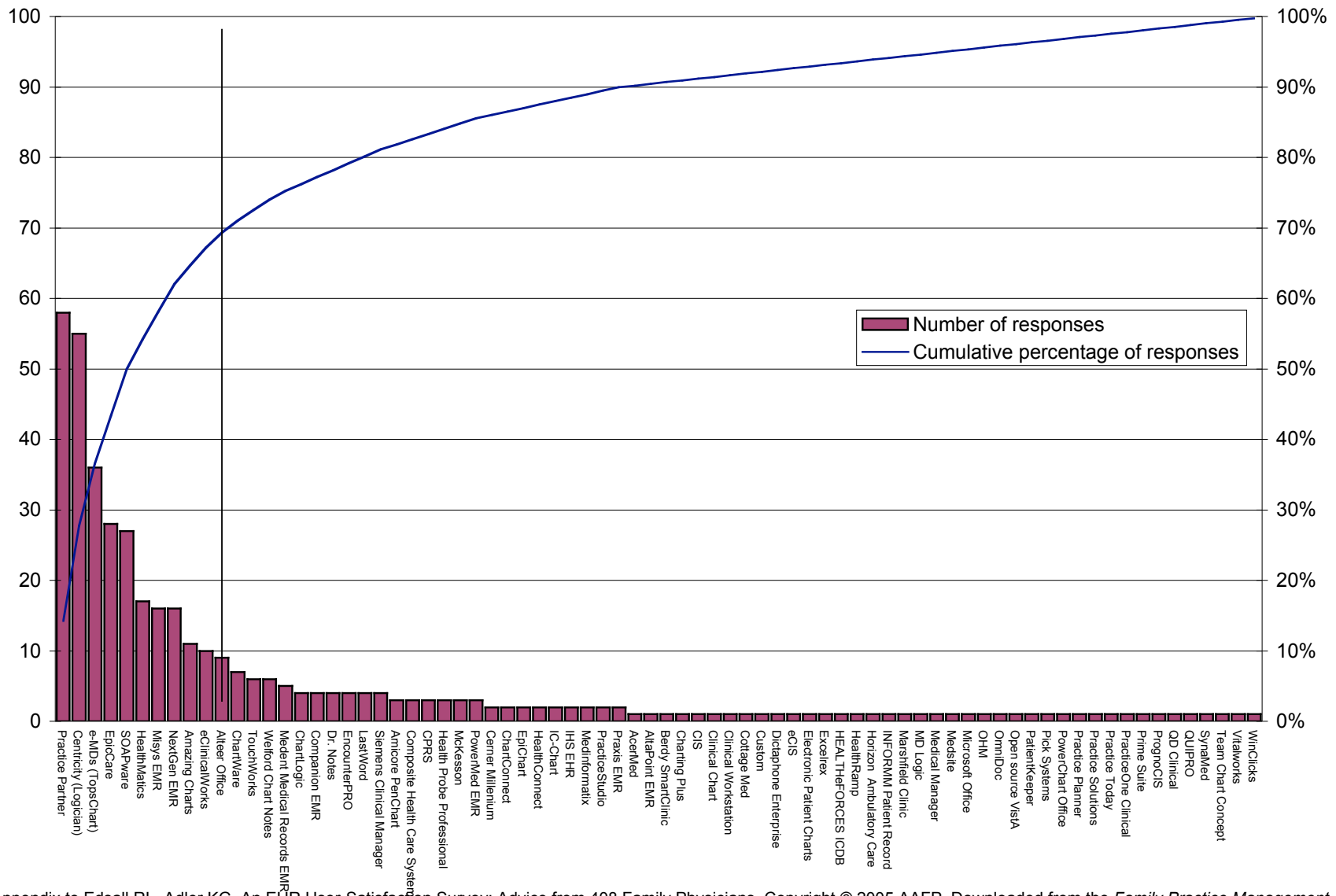
Average number of software interfaces present

EHR system	
EpicCare (N = 28)	3.7
Centricity (Logician) (N = 55)	3.1
HealthMatics (N = 17)	3.0
Practice Partner (N = 58)	2.6
eClinicalWorks (N = 10)	2.4
All 408 responses	2.4
NextGen EMR (N = 16)	2.3
Misys EMR (N = 16)	2.1
Alteer Office (N = 9)	1.6
e-MDs (TopsChart) (N = 36)	1.5
SOAPware (N = 27)	0.9
Amazing Charts (N = 11)	0.6

Systems represented in the survey responses, with number of respondents per system

EHR system	Responses		
Practice Partner	58	Dictaphone Enterprise Workstation	1
Centricity (Logician)	55	eCIS	1
e-Mds	36	Electronic Patient Charts	1
EpicCare	28	Excelrex	1
SOAPware	27	HEALTHeFORCES ICDB	1
HealthMatics	17	HealthRamp	1
NextGen EMR	16	Horizon Ambulatory Care	1
Misys EMR	16	INFORMM Patient Record	1
Amazing Charts	11	Marshfield Clinic	1
eClinicalWorks	10	MD Logic	1
Alteer Office	9	Medical Manager	1
ChartWare	7	Medsite	1
TouchWorks	6	Microsoft Office	1
Welford Chart Notes	6	OHM	1
Medent Medical Records EMR	5	OmniDoc	1
ChartLogic	4	Open source VistA	1
Companion EMR	4	PatientKeeper	1
Dr. Notes	4	Pick Systems	1
EncounterPRO	4	PowerChart Office	1
LastWord	4	Practice Planner	1
Siemens Clinical Manager	4	Practice Solutions	1
Amicore PenChart	3	Practice Today	1
Composite Health Care System	3	PracticeOne Clinical	1
CPRS	3	Prime Suite	1
Health Probe Professional	3	Prognosis	1
McKesson	3	QD Clinical	1
PowerMed EMR	3	QUIPRO	1
Cerner Millenium	2	SynaMed	1
ChartConnect	2	Team Chart Concept	1
EpiChart	2	Vitalworks	1
HealthConnect	2	WinClicks	1
IC-Chart	2	WinMeds	1
IHS EHR	2		
Medinformatix	2		
PracticeStudio	2		
Praxis EMR	2		
AcerMed	1		
AltaPoint EMR	1		
Berdy SmartClinic	1		
Charting Plus	1		
CIS	1		
Clinical Chart	1		
Clinical Workstation	1		
Cottage Med	1		
Custom	1		

Chart: Systems represented in the survey responses, with cumulative percentage



EHR versions represented in the survey

EHR system	Versions reported	Number of reports
AcerMed	5.25	1
AltaPoint EMR	6	1
Alteer Office (N = 9)	4.8	6
	4.82	1
	4.9	1
	No version given	1
Amazing Charts (N = 11)	1.1.2	1
	1.2.6	1
	2.0	7
	No version given	2
Amicore PenChart	No version given	3
Berdy SmartClinic	No version given	1
Centricity (Logician) (N = 55)	2003	2
	5.5	13
	5.6	15
	No version given	25
Cerner Millenium	2002	1
	8.0	1
ChartConnect	6.2	1
	No version given	1
Charting Plus	4.0	1
ChartLogic	6	1
	6.0	1
	No version given	2
ChartWare	16	1
	7.0	1
	7.7	2
	No version given	3
CIS	No version given	1
Clinical Chart	No version given	1
Clinical Workstation	7.1	1
Companion EMR	7.1	3
	No version given	1
Composite Health Care System	II	2
	No version given	1
Cottage Med	1.9.1	1
CPRS	No version given	3
Custom	No version given	1
Dictaphone Enterprise Workstation	No version given	1
Dr. Notes	1.8	1
	No version given	3
ECIS	No version given	1
eClinicalWorks (N = 10)	6.09	1
	6.5	5
	No version given	4
Electronic Patient Charts	No version given	1
e-MDs (TopsChart) (N = 36)	4.1	1
	5.0	2
	5.2	24
	5.3	7

	No version given	2
EncounterPRO	2.4	1
	4.0	1
	No version given	2
EpicCare (N = 28)	1999	1
	2001	2
	2002	1
	2003	1
	2004	4
	2004 IU 2	1
	MU 3	1
	MU 5	1
	No version given	16
EpiChart	4.0	1
	4.1	1
Excelrex	No version given	1
Health Probe Professional	8.0	2
	SQL version	1
HealthConnect	No version given	2
HEALTHeFORCES ICDB	No version given	1
HealthMatics (N = 17)	4.7	3
	4.8	2
	7.8	1
	No version given	11
HealthRamp	12.4.3	1
Horizon Ambulatory Care	No version given	1
IC-Chart	No version given	2
IHS EHR	No version given	2
INFORMM Patient Record	No version given	1
LastWord	4.1	3
	No version given	1
Marshfield Clinic	No version given	1
McKesson	7.6	1
	ER9	1
	No version given	1
MD Logic	No version given	1
Medent Medical Records EMR	12	1
	14	4
Medical Manager	No version given	1
Medinformatix	No version given	2
Medsite	No version given	1
Microsoft Office	No version given	1
Misys EMR (N = 16)	6	1
	6.10	1
	6.11	1
	7	1
	7.0	6
	No version given	6
NextGen EMR (N = 16)	3.9.3	1
	3.9.4	2
	3.9.5	1
	3.9.6	1
	4.9.4	1
	5.0	2
	No version given	8

OHM	5.1	1
OmniDoc	3.7.0	1
Open source VistA	No version given	1
PatientKeeper	2.3	1
Pick Systems	No version given	1
PowerChart Office	No version given	1
PowerMed EMR	6.3	1
	6.4	1
	No version given	1
Practice Partner (N = 58)	6.x	1
	7.2	6
	7.4	1
	7.5	5
	7.6	9
	7.x	3
	8.0	2
	8.1	11
	8.1.2	1
	8.1.3	1
	8.2	1
	No version given	17
Practice Planner	No version given	1
Practice Solutions	No version given	1
Practice Today	No version given	1
PracticeOne Clinical	No version given	1
PracticeStudio	No version given	2
Praxis EMR	2.19	1
	3.0	1
Prime Suite	3.5	1
Prognosis	No version given	1
QD Clinical	No version given	1
QUIPRO	No version given	1
Siemens Clinical Manager	2.55	1
	No version given	3
SOAPware (N = 27)	2004	1
	4.21	1
	4.58	1
	4.7	1
	4.74	1
	4.7x	1
	4.8	3
	4.81	2
	4.82	5
	4.821	2
	4.85	2
	4.9x	1
	4.x	1
	No version given	5
SynaMed	No version given	1
Team Chart Concept	No version given	1
TouchWorks	9.2	2
	10	1
	No version given	3
Vitalworks	No version given	1
Welford Chart Notes	4.7N	1

	4.8	1
	4.8n	1
	No version given	3
WinClicks	No version given	1
WinMeds	No version given	1
