

# EHR Ease of Use Defined

*Study of 8 Ambulatory EHR Vendors*



Business Advisors for the Healthcare Industry

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## OBJECTIVE

How many times have you heard the phrase “EASY TO USE” when hearing about the capabilities of an EHR system? Often this phrase is based off a subjective opinion by the vendor or their end users, but there is typically no industry standard of measurement applied to substantiate these claims.

In other industries, there are hard data elements (facts) to substantiate performance claims. For example, in the auto industry it is common to see measurements like miles per gallon, time to go from zero to sixty, horsepower, etc. The personal computer industry will use words such as processing speed, memory size, and battery life. The airline industry will use on-time departures/arrivals, lost luggage rates, number of destinations offered, etc. The examples are endless - so why are there no similar industry standard metrics for measuring EASE of USE when it comes to EHRs? This should not be difficult when you consider most EHRs provide similar capabilities, yet different methods to achieve the same results. For example, some systems inherently include electronic charge capture built into the program, whereas others may require a third-party bolt-on solution to achieve the same functionality. Technically, both vendors can claim they offer electronic charge capture, but one may require additional interfacing and set-up efforts, whereas the other is built in. The speed to document a note can also vary if the system allows for charting by exception capabilities and/or has pre-built templates.

Heretofore, the industry has generally used uncontrolled surveys filled out by users to measure their performance. Vendors have been known to manipulate the results by offering incentives to their clients to fill them out and/or would fill them out for their clients. While surveys can provide some useful information, the data can be significantly skewed because the survey is uncontrolled and it rarely segments the variables, nor can it distinguish between users who are properly trained and those who are not. For example, there was a recent EHR usability study conducted by one of the major trade associations that included thousands of providers using EHRs. They were asked to rank the vendor using emotions such as negative or positive feelings.

**Example: Do you feel like the EHR has increased productivity? A) strongly positive, B) positive, C) neutral, D) negative, C) strongly negative.**

It was baffling to see some vendors score an equal amount of positive and negative answers on the same question. How is this possible if the software is the same? Not surprisingly, when we drilled down into the data, we discovered employed providers with income guarantees were reporting higher positive feelings towards their EHR compared to those in private practice who would take a financial hit if the system slowed the provider down. We saw higher positive feelings for groups with certified in-house super users compared to those who exclusively relied upon an external helpdesk for support and/or a vendor call center. So again, while this is useful information, it is very subjective and can vary significantly based upon who (or what type of practice) is responding. In fairness to the vendor, they have no way of controlling if the person responding to the survey is properly trained or has adequate in-house support or even a reliable computer.

While Coker is in no position to mandate the measurement standards for defining EASE of USE, we have seen many EHR systems and we have participated in thousands of demos. We are often asked to provide our non-biased assessment of vendor capabilities to help our clients make informed decisions. To better serve our clients, healthcare practices and clinics, we set out to define an objective approach to assessing ease of use.

## METHODOLOGY

Understanding the fast-paced environment our clients live in, we realized that the appropriate measure for ease of use is the amount of time it takes to complete a given task. The less time to complete said task, the faster and easier the solution.

The first step was to define the key tasks involved with EHR usage. Based on our experience working with clients, we identified twelve (12) critical and commonly repeated tasks that drive the vast majority of EHR usage. Of course, there are other tasks for which EHRs are used and depending on individual scenarios, may be critical to evaluate in addition to those discussed in this report.

To protect the integrity of the time study, we used the same demo script for each vendor to create a level playing field. Recognizing most vendors use demo versions of their software when presenting, we gave them the demo script in advance so they could prepare accordingly. (No, this is NOT giving them any advantage, most systems must be configured to perform tasks and we do not want them to show up unprepared.) Accordingly, we leveraged this information, as well as gathered input from users of a variety of different leading EHR/PM systems to compile some industry averages for measuring “EASE OF USE.” We used time to complete a task as our baseline because most providers view time spent in an EHR as their top complaint or request for improvement.

*To complete this study, Coker used the following methods:*

- Coker’s internal vendor demonstration score cards
- Available industry averages and best practices
- Requested vendor demonstrations
- Client feedback and reporting
- Prior vendor vetting engagements

*Areas of measurement based upon US Standard Time (seconds):*

- New patient registration
- New patient appointment
- Eligibility (Walk-in)
- Eligibility (Scheduled)
- Prior authorization
- Documenting a patient visit
- Electronic charge capture
- Prescription writing/ordering
- Referral
- Claim submission
- Working a denial
- Posting a payment

*Assumptions / Disclosures:*

- All systems tested were fully integrated, but many used third party clearinghouse vendors for claims, eligibility, electronic payment posting.
- Vendors were provided demo scripts in advance to allow for proper planning and configurations of demo/system.
- Each task was looked at individually as opposed to a complete encounter from start to finish.
- All testing was done without interruptions.
- System was functioning properly at the time of testing.
- Users performing the tasks were properly trained.
- Internet speed (or lack thereof) was not factored into this study.

## RESULTS

Coker compiled data from eight (8) leading vendors:

	Azalea Health	A	B	C	D	E	F	G	Avg.	Variance
<b>Function</b>										
Adding a New Patient	80	120	95	360	85	80	125	205	143.75	-63.75
Scheduling a New Appointment	30	50	120	90	120	90	60	120	85	-55
Checking Eligibility (if walk-in)	10	12	14	12	60	8	10	10	17	-7
Checking Eligibility (if scheduled)	0	0	0	0	10	0	15	0	3.125	-3.125
Entering a Prior Authorization	120	125	120	422	98	110	140	116	156.375	-36.375
Documenting a Patient Visit	240	288	296	512	247	234	311	589	339.625	-99.625
Capturing a Charge	60	45	61	69	99	30	67	72	62.875	-2.875
Entering a Prescription	45	120	90	187	198	62	201	219	140.25	-95.25
Sending a Referral	120	123	148	149	183	110	198	206	154.625	-34.625
Submitting a Claim	10	10	15	18	10	0	29	23	14.375	-4.375
Working a Denial	60	61	78	102	99	59	109	156	90.5	-30.5
Posting a Payment	60	95	87	111	172	67	178	181	118.875	-58.875
<b>Totals</b>	<b>835</b>	<b>1049</b>	<b>1124</b>	<b>2032</b>	<b>1381</b>	<b>850</b>	<b>1443</b>	<b>1897</b>	<b>1326.375</b>	<b>-491.375</b>

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## CONCLUSIONS

- Vendors operating in a cloud, multi-tenant environments received faster times.
- Task linking, auto-pull forwards, trigger keys, and auto-tasking were present on all systems with faster task completion times.
- The industry average for competing all twelve (12) tasks takes 22.1 minutes.<sup>2</sup>

Azalea Health completed all 12 tasks with an average 13.91 minutes, significantly faster by nearly forty percent (40%). One other vendor achieved a similar score of 14.15 minutes.

- Practices operating on Azalea Health would have the capacity to manage thirty (30) patients per day with one half the effort of most systems on the market, thereby lowering overhead and payroll costs.

Our conclusions and findings are based upon the experience Coker has had of completing comparable reviews utilizing specific information and representations provided by vendors/users during the study. Coker has functioned as an independent party inherent to this review.

<sup>1</sup> Time measurement is in seconds. "0" indicates fully automated process.

<sup>2</sup> One vendor seemed to be a significant outlier at 34 minutes to complete all twelve (12) tasks. Removing the highest scoring vendor and the lowest scoring vendor normalizes the industry average to eighteen (18) minutes. In our opinion, eighteen (18) minutes would represent a more accurate reflection of the true industry average. Utilizing the 18-minute industry average, Azalea Health is 23% faster at completing all 12 tasks.

We have no financial affiliation or operational interest with any of the vendors, suppliers or any other individuals included in this study<sup>3</sup>, including Azalea Health, nor have our conclusions been impugned by anyone.














We have remained independent in thought and expression and have also utilized the information, data, and representations provided from the requested vendors to formulate our conclusions and recommendations.

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<sup>3</sup> Vendors participating in this study will remain confidential. Coker has not shared the names with anyone outside of Coker, including Azalea Health.

## APPENDIX

### SUMMARY

 Time to Complete Task... (seconds)	Industry Avg.	Azalea	Variance
 New Patient Registration	143	80	-63
 New Patient Appointment	85	30	-55
 Eligibility Check (Walk-In)	17	10	-7
 Eligibility Check (Scheduled)	3	0	-3
 Prior Authorization	156	120	-36
 Documenting a Patient Visit	339	240	-99
 Electronic Charge Capture	62	60	-2
 Prescription	140	45	-95
 Referral	154	120	-34
 Claim Submission	14	10	-4
 Working a Denial	90	60	-30
 Post Payment	118	60	-58

### REPORT DISCLAIMER

This Ease of Use Study (“Study”) was completed by Coker Group Holdings, LLC, d.b.a. Coker Group (“Coker”) for Azalea Health Innovations, Inc. (“Azalea Health” and/or the “Client”) to provide industry insight on electronic health record (“EHR”) performance standards.

Coker utilized our own internal time tracking studies while performing vendor assessments and end-user feedback. Time tracking results are subject to change based on future improvements, enhancements and/or the skills and knowledge of the operator performing the tasks.

All conclusions and go-forward recommendations are presented as an expression of our expert judgment and independent opinion. These have been made based upon the facts and data obtained from all sources as well as our experience in having completed similar reviews for other comparable entities.

Coker assumes the compilation of all data and other resources provided by our sources is accurate and reliable.

The professional fees for this review are not contingent upon the results reported.