

Ambulatory Electronic Medical Records for Large Practices

Jared Peterson and Stacilee Whiting

Recently, KLAS studied ambulatory electronic medical record (EMR) solutions for practices with 100-plus physicians. While KLAS has previously studied EMR solutions, this was the first study focused on practices with over 100 physicians. The results provide thought-provoking insight into physician adoption, common obstacles, workflow issues and overall physician satisfaction.

Physician Use

Among other interesting facts, KLAS found that overall physician use is at 85%. This means that only 15% of physicians are doing their work as though they do not have an EMR (not documenting, reviewing results, ordering or prescribing electronically, or some combination of the four). These results are encouraging and indicate that providers and vendors alike are gaining ground in adoption of EMRs.

There is still progress to be made, however. Deeper exploration reveals that vendors have a long way to go in getting all their contracted physicians live. On average, only 65% of a vendor's contracted physicians are actually up and running with any given EMR module included in the KLAS study (Figure 1):

- ePrescribing (defined as a physician entering the medication order electronically, regardless of transmission method)
- Non-medication orders

- Clinical results review
- Physician documentation

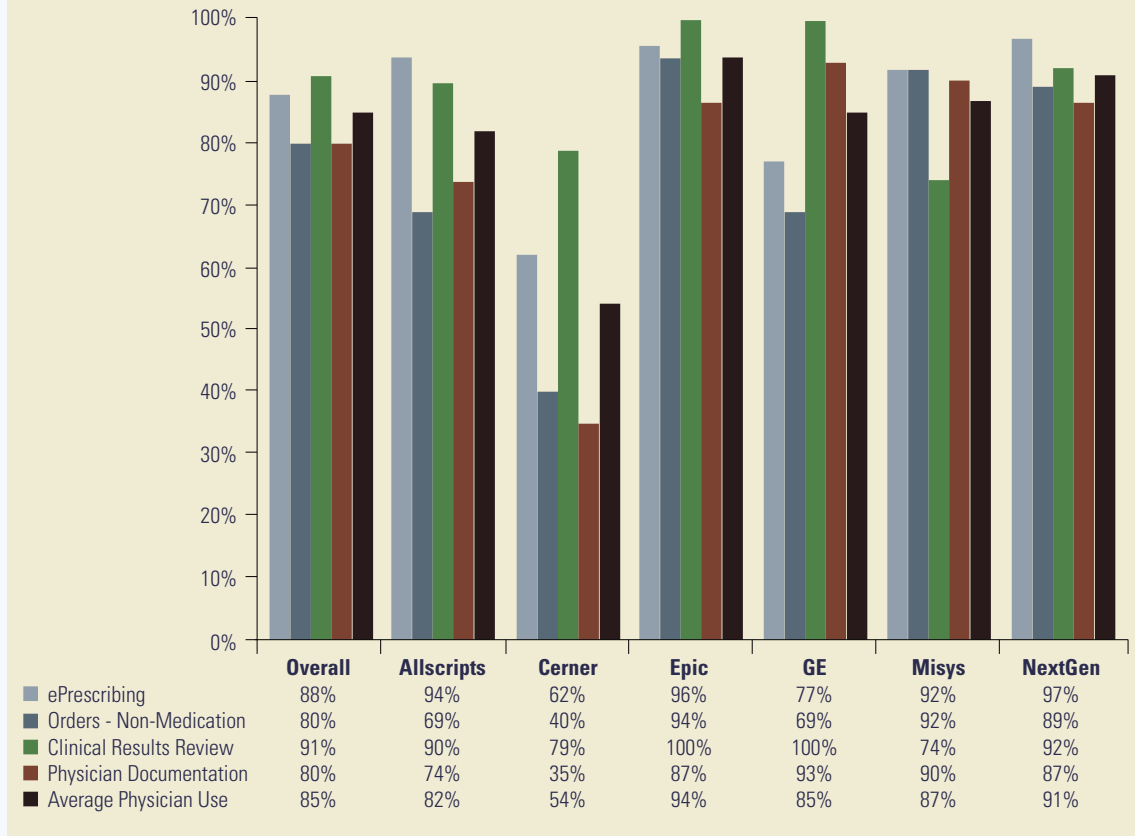
In fact, when measuring whether an organization achieved at least 75% physician use for *all four* modules, it was found that only 45% of providers achieve this level of EMR use. Even fewer (37%) have 100% physician use for all four modules.

Obstacles

Providers reported several impediments to 100% adoption across all four functional areas. Implementing the solution in a phased approach had a significant impact on adoption at this level. Several providers reported implementing only one or two modules at first and then expanding to others later so as not to overwhelm physicians, or because they did not have the resources to implement all modules at once. Providers that took this approach sometimes reported losing energy on secondary phases, citing reasons such as team leaders leaving, executive turnover, change of focus or a reluctance to relive the pain of the initial installation.

Another major obstacle to adoption was physician resistance. Several providers reported that physicians were “apprehensive” or “old fashioned” and hesitant to use the EMR. Many stated that their physicians preferred to continue dictating rather

Figure 1. Physician usage by vendor and function



than to enter data themselves. Others reported that their physicians were not happy with the workflow and lack of system functionality; however, these comments were not common across the board (providers specifically mentioned the Cerner and GE orders modules).

Other reasons for slow adoption included problems with interfaces (especially with Misys), slowness of the system (Cerner) and specialty physician groups that took a little longer to get on board. Overall, the ePrescribing and clinical results review modules had the highest percentages of physician users, at 88% and 91%, respectively. Non-medication orders and physician documentation modules had physician use of 80% each. Interestingly, the usage for the various functional areas varied widely by vendor (see Figure 1).

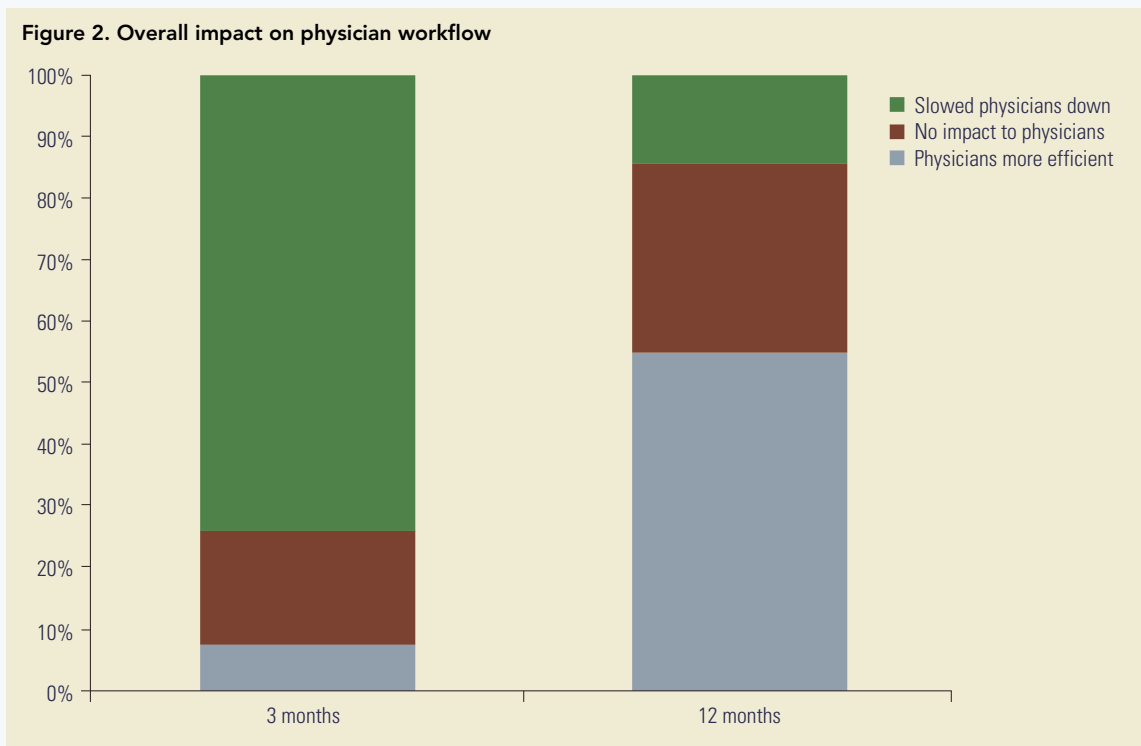
Workflow Slowdown

During the first three months following implementation, 74% of organizations reported that the new EMR slowed physicians down. After a year, however, only 15% reported a slowdown, and 55% of providers reported that their physicians were more efficient (Figure 2).

Vendors with deep physician use reported a greater impact on physician workflow. For instance, Epic typically implements all modules at once and reports a huge initial impact on workflow, whereas Cerner implemented the fewest modules but also had the least initial impact on physicians.

What proved interesting was the way many providers defined *efficiency*. Among the most important gains were better documentation and care delivery but not increased patient volumes and greater bottom-line revenue. One comment, representative of many others, spoke to increased efficiency in terms of big picture gains, stating, “I don’t think [the EMR] improves efficiency on the doctor’s level, but it does improve efficiency at an administration level and a patient level.”

Many expressed that some of the key gains were not made by the physicians but, rather, at the expense of physicians. Several providers reported that the EMR shifted work back to the physician that had previously been done by transcriptionists and others. One provider explained that “physicians do not get more done in the same amount of time, so they are not necessarily more efficient. What they are is more *effective* [emphasis added]. They provide better care with the time they invest.”



While it was clear that the most important efficiencies were gained in better care delivery, providers reported several other efficiencies as well: decreased time chasing charts, decreased need for support staff, decreased patient waiting times, better coding, benefits of having medical records available at their fingertips, access to best practices and operational efficiencies (through tasking and medication orders).

Many providers reported a slowdown for the first four to 12 weeks, after which time they begin to regain their former speed and patient volume. To help physicians adjust, several organizations reduced patient loads and spaced patient visits further apart so that physicians would have more time to document after the appointment. Those organizations gradually began adding more patients, and by 12 months, 85% of providers report either improved efficiencies or no impact to speed or patient volume.

Physician Satisfaction

On the whole, physicians tended to be generally satisfied with EMR solutions, giving an average satisfaction score of 6.7 out of 9. While satisfaction scores vary widely by vendor, they track closely with overall vendor performance scores in this segment. But what determines how satisfied the physicians are?

In general, vendors with high physician *use* earned higher *satisfaction scores* among physicians. This begs the question, Which came first, the chicken or the egg? Do physicians become

happier as they use the EMR? Or are they not using it because they are not happy with it? The answer probably depends on the vendor. However, overall provider commentary suggests that physicians who are engaged and use the system are, or become, more satisfied than those who do not.

Provider comments also suggested that physician satisfaction improves with time as the learning curve slows. As doctors spend more time on the system, they become more comfortable and efficient and satisfaction improves. The same holds true for new implementations and upgrades, as well as additions of new modules.

One organization reported, “It gets better as we get used to it ... the further along we are, the happier we are.” Satisfaction scores tended to be higher among vendors who increased physician efficiency by the 12-month mark – though this was not always the case. Epic had the highest physician satisfaction score, even though GE had the highest percentage of physicians who reported that they were more efficient due to the new EMR. On the other hand, one might expect NextGen, one of the vendors associated with the lowest boost to efficiency, to score below average in physician satisfaction; this was not the case. NextGen scored 6.7 of 9 for physician satisfaction, exactly in line with average.

Summary

In summary, providers and vendors alike have made great strides

in EMR adoption among physicians in large-scale ambulatory practices. However, there is still work to be done in the areas of physician use, adoption obstacles, workflow and physician satisfaction. As vendors continue to enhance EMR technology, advance workflow and solve challenges with integration and physician acceptance, adoption will grow and providers will be even closer to their specific efficiency, safety and effectiveness goals.

About the Authors

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About KLAS

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

How We Serve the Healthcare Industry: KLAS, in concert with thousands of healthcare executives, CIOs, 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 hospitals and 2,500 clinics on more than 750 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, to 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.

Out of Africa, into healthcare.

For Courtyard's Justin Ringer, making a difference is close to home.

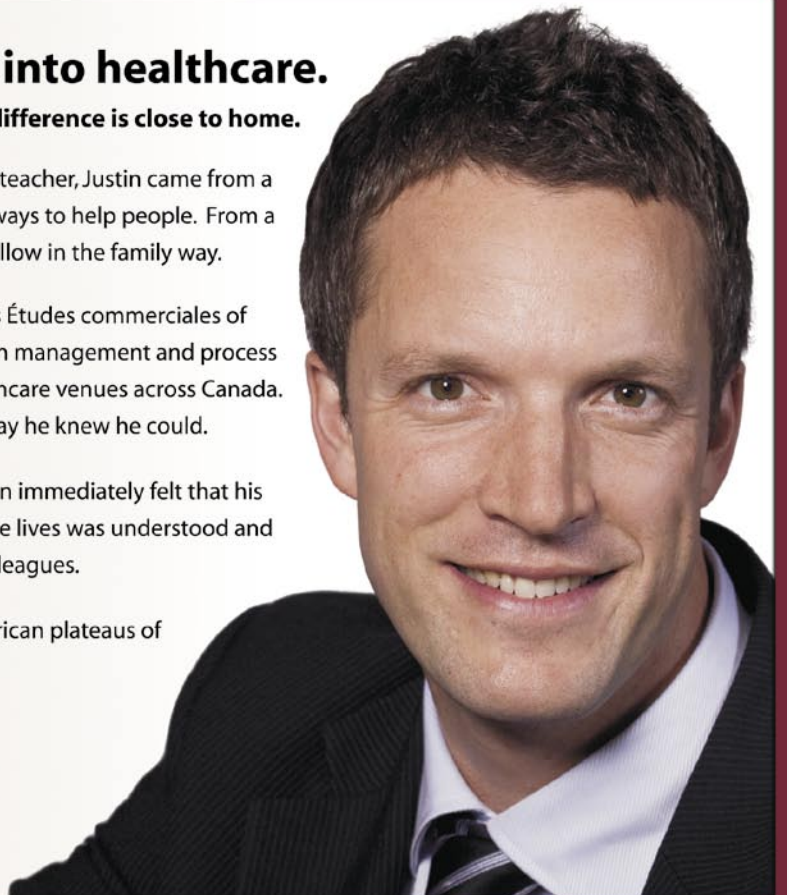
Born in a small Nigerian town to a nurse and a teacher, Justin came from a family that used its skills in practical, tangible ways to help people. From a very young age he knew he was destined to follow in the family way.

After obtaining his MBA from École des Hautes Études commerciales of Montréal, Justin gained valuable experience in management and process redesign in a variety of commercial and healthcare venues across Canada.

But he wasn't impacting people's lives the way he knew he could.

And then along came Courtyard. Justin immediately felt that his personal story and his drive to change lives was understood and echoed in the experiences of his colleagues.

Though miles away from the West African plateaus of his childhood, Justin was home.



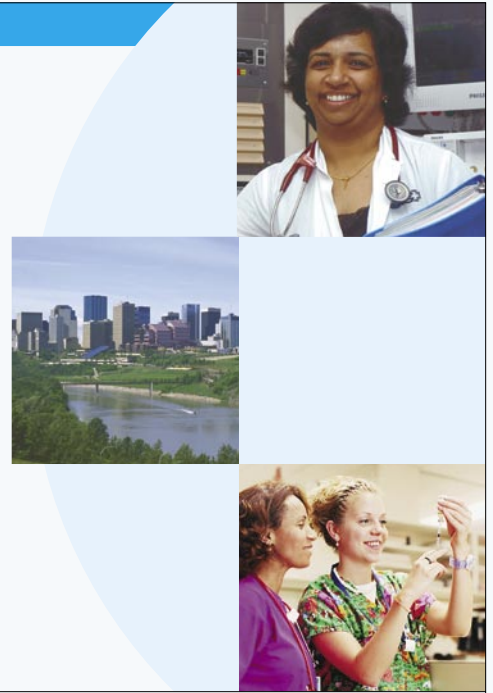
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