

TRENDS IN PHYSICIAN BEHAVIOR WITH SMART RIBBON

Smart Ribbon

For more than half a decade now, hospital leaders have embraced strategies to improve a variety of challenges through technology to help them achieve the goals set forth in the Patient Protection and Affordable Care Act. From quality and patient safety reforms to overhauls in patient satisfaction measures, the health care industry has focused squarely on how to invest in the right tools to get the job done. The Texas Hospital Association has been a part of that investment with an effort to improve patient safety by featuring and promoting best practices and establishing organizations that help hospitals address operations to affect outcomes.

Today, THA's effort is geared around a new endeavor – one that strives to affect physician perception and awareness at the point of care.

Smart Ribbon, a joint venture with IllumiCare, provides a “ribbon” of data to provide key patient details without requiring physicians to conduct deep research. It gives clinicians real-time, patient-specific cost and risk data at the point of care – where it is most needed and influential. Smart Ribbon primarily focuses on:

- Medications;
- Labs;
- Radiology; and
- Observational status.

Currently in operation in several major hospitals and hospital systems, Smart Ribbon and IllumiCare have already identified trends in effectiveness, and physicians have been using the tool through Smart Ribbon's partner, IllumiCare.

Results

IllumiCare users had lower than average cost per admission for medications, labs and radiology testing in the intervention period (Dec-Jan) versus the baseline period (July-Nov). When compared to other physicians with the same specialty at the same hospital, IllumiCare users outperformed their non-user peers by 5 percent to 68 percent. In all instances, IllumiCare user average costs went down. In two instances (Family Practice and Internal Medicine+Nephrology) the non-user peer average costs went up. With hospitalists, average costs went down, but not as much as with the IllumiCare users. And, removing just one IllumiCare user would have made the user peer group reduction -29.23 percent rather than -18.13 percent.

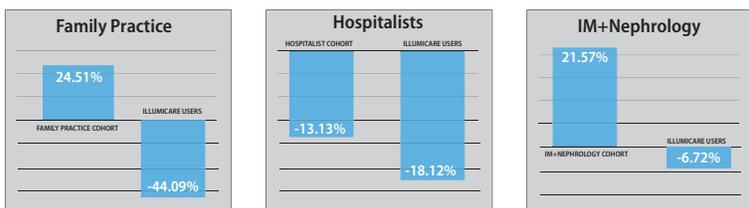


Figure 1 – IllumiCare users become more fiscally efficient in each specialty on an absolute and relative basis.

Method

IllumiCare captures every order for medications, labs and radiology testing via HL7 messages, while noting the ordering provider. IllumiCare computes a cost per day for every scheduled medication order and for lab and radiology tests. Costs per medication, lab and radiology test were held constant during the study period, so that any change observed in costs represented a change in utilization.

For each admission and for each provider, we summed the daily costs of scheduled medicines (only those ordered by that provider) for every day of the patient stay. We also summed the costs for laboratory and radiology tests (only those ordered by that provider) during the admission. We then computed the provider-specific average medication, lab and radiology spend per admission for each month from July 2015 – January 2016.

In each case for IllumiCare users, the average costs were lower in the intervention period (Dec-Jan) versus the baseline period (July-Nov). But, it was possible the lower average costs were the result of seasonal changes or other interventions over the same period. If either of those were the case, one would expect the changes seen in IllumiCare users to be matched by other similar, non-user providers.

Thus, we compared IllumiCare users to a cohort of other providers in the same specialty at the same hospital. In every instance, the changes seen in IllumiCare users was an improvement versus their peers:

	IllumiCare Users	Non-User Peers
Family Practice	↓ 44.09%	↑ 24.51%
Hospitalists	↓ 18.13%	↓ 13.13%
IM + Nephrology	↓ 6.72%	↑ 21.57%





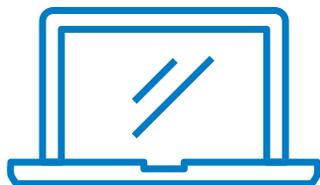
Discussion

IllumiCare return on investment models posit that presenting cost and iatrogenic risk data to providers during the ordering process has the potential to reduce hard dollar spending by three to eight percent. Behavior change is difficult, but many prior studies have confirmed the influential power of cost and risk data, if provided during the ordering process.

We track IllumiCare usage and can tell that providers view and interact with the tool frequently. This early look at outcomes suggests that IllumiCare is having an effect on provider utilization. As in prior studies, providers order fewer and less expensive medications, labs and radiological tests when given hospital cost and iatrogenic risk data at the point of care.

As more providers within this health system gain access to IllumiCare and as more data is collected over the coming months, we plan to risk-adjust every admission by APR-DRG to control for changes in case mix over time and between providers. We can then make comparisons not just on the rate of change but also on the costs themselves.

Providers order **fewer and less expensive** medications, labs and radiological tests when given hospital cost and iatrogenic risk data at the point of care.



Smart Ribbon combines actionable clinical and financial intelligence within a system that has a very light technical footprint.

Background

Smart Ribbon is a non-intrusive “ribbon of information” that hovers over the electronic medical record and gives providers real-time, patient-specific hospital cost and iatrogenic risk data at the point of care. Many prior studies have demonstrated that when providers are presented with cost and risk data during the ordering process, they tend to be more fiscally efficient while also reducing iatrogenic risks.

IllumiCare was founded in 2014 by a visionary physician and a team behind him with a combined 67 years of start-up/high growth company experience, almost all of which is in hospital IT.

With deep experience in the clinical, financial and technical aspects of hospital operation, the IllumiCare leadership has resulted in a tool designed to provide real insight by combining actionable clinical and financial intelligence within a system that has a very light technical footprint.

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