Improving Plain Language Usage in Hospitalist Discharge Instructions

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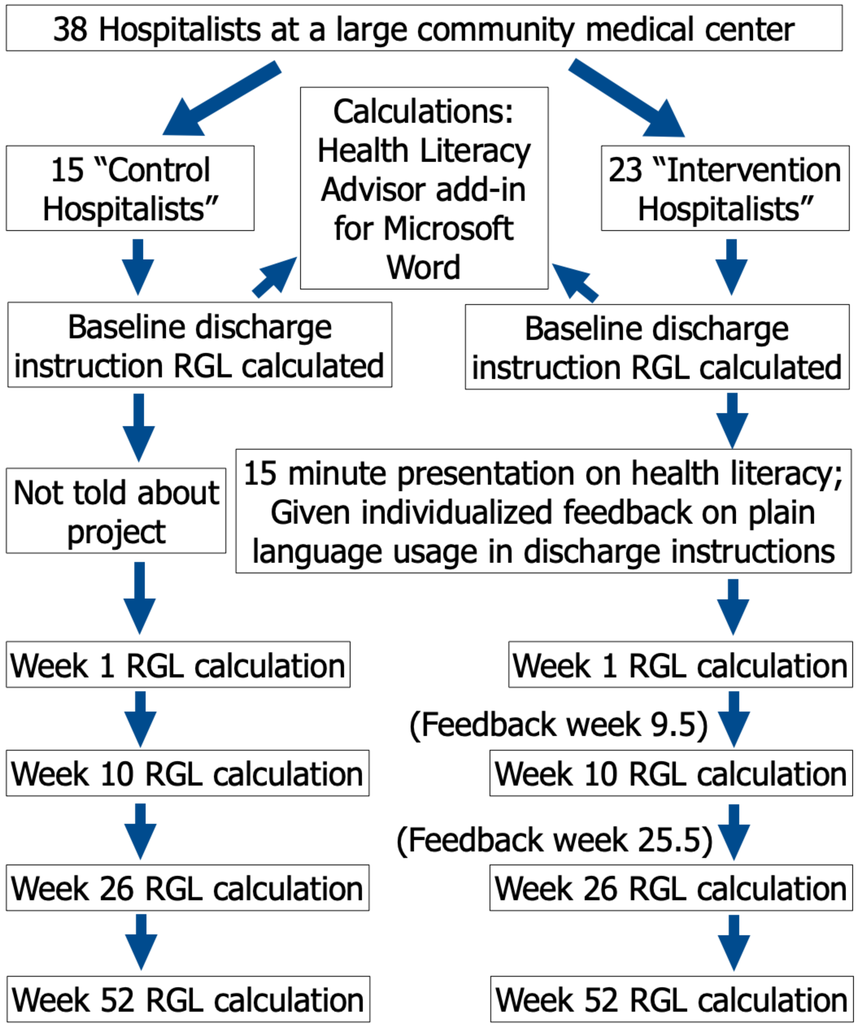
INTRODUCTION

Limited health literacy affects 88% of English-speaking adults. It has been associated with a higher incidence of medication errors, preventable emergency department visits and hospital admissions, and overall mortality. Doctors frequently use language that is confusing to patients, and patients may hide their limitations in health literacy due to shame about their skill level. Research has shown that standardized outpatient physician education and personalized feedback can help doctors use plainer language in after visit summaries.

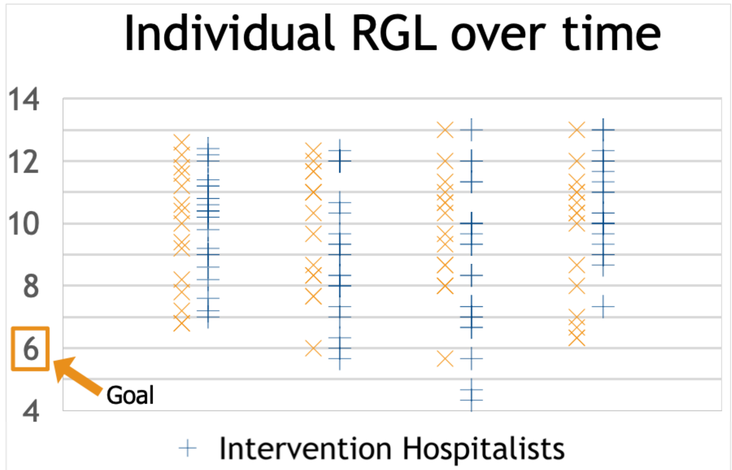
In an effort to improve doctor-patient communication in the inpatient setting, I launched a hospitalist education initiative which included personalized feedback at a large community medical center. My goal was to have over 75 percent of "intervention" hospitalists writing at or below a 6th grade Fry-based reading grade level (RGL) in their discharge instructions by week 26 of the project.

METHODS



RESULTS

Prior to the intervention, none of the 23 Intervention Hospitalists were writing at or below the goal of a sixth grade reading level. 10 weeks after the intervention, 3 of 23 Intervention Hospitalists had achieved this aim (13%). The average discharge instruction RGL for the Intervention Hospitalist group dropped from 9.99 to 8.75 within 10 weeks from the health literacy presentation, while the average RGL of the Control Hospitalist group's discharge instructions stayed between 9.67–9.82. The RGL drop in the intervention group was statistically significant ($p = 0.0243$). Interestingly, the beneficial impact on RGL in the intervention group did not seem to be retained over time. The random RGL check at week 52 showed the intervention group had rebounded to an even higher average RGL than at baseline.



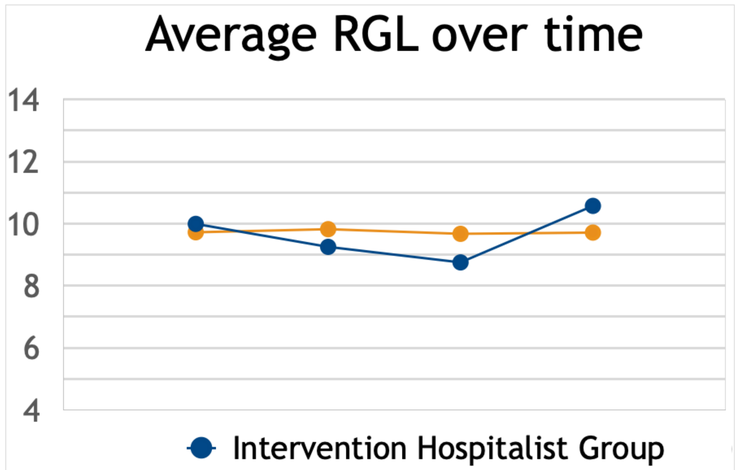


Fig 1. Calculated RGL used by individual hospitalists in discharge instructions over time

Average RGL	Baseline	Week 1	Week 10	Week 52
Intervention Hospitalist Group	9.99	9.25	8.75	10.57
Control Hospitalist Group	9.72	9.82	9.67	9.71

This project encountered many of the common barriers that can afflict quality improvement research. Hospitalist attitude and buy-in were felt to be a bit difficult to influence with a 15-minute presentation. We did not verify whether Intervention Hospitalists actually received or read the written and e-mailed feedback provided to them at different time points. Two intervention hospitalists and three control hospitalists were excluded from data processing because their discharge instructions consisted entirely of smart texts (no inclusion of personally typed material) or because they left the hospital before project completion. While raw data was collected for Week 26 as well, there was insufficient time to process this data prior to this conference. It is notable that despite these limitations, a statistically significant improvement in plain language usage was observed among hospitalists who were provided with education and feedback regarding plain language usage (the Intervention Hospitalists), while plain language usage did not improve among the Control Hospitalists.

CONCLUSION

This project demonstrates that hospitalist education and individualized feedback can improve plain language usage in the discharge instructions they write for patients. Further research investigating the optimal extent of education and frequency of feedback would be helpful. While smart texts for discharge instructions can be quite informative for patients, many of these are written at an 8th-9th grade reading level, which is not ideal. Future quality improvement projects could involve rewriting smart texts to employ simpler language; this could have a repeated and lasting impact on the complexity of language used in patient discharge instructions. Any adjustments to electronic medical record programs enabling real-time RGL calculation of written patient communications could potentially result in increased plain language usage as well.