Pilot study shows Wispr Digital Otoscope reduces antibiotic prescriptions and enhances patient care

Background

The design of traditional analog otoscopes presents several challenges for physicians when examining the tympanic membrane. Consequently, physicians often have only a brief or obscure view of the eardrum, which can lead to incomplete diagnoses, repeat exams, and the frequent prescription of antibiotics as a precaution.

Improved otoscope designs with better diagnostic capabilities in theory can reduce unnecessary antibiotic use and increase patient satisfaction, but supporting data has been limited.

Objective

To evaluate if an improved otoscope design can measurably decrease the number of antibiotics prescribed during ear exams and reduce the occurrences of repeat ear exams.

Methods/Design

A pilot study was conducted in partnership with a major integrated hospital system. Over the course of 8 weeks, 621 patients seeking care for ear problems were placed in either a control or pilot group. The control group consisted of 586 patients and received care from physicians using traditional otoscopes. The pilot group consisted of 35 patients and received care from physicians using Wispr Digital Otoscopes. The number of antibiotics ordered per patient and the number of visits per patient were measured and compared between the pilot and control group. A survey was also distributed to patients and providers in the pilot group to gather qualitative feedback about the usability and quality of care provided with the Wispr Digital Otoscope.

Key Findings

35% Reduction in Antibiotic Orders

On average, 0.57 antibiotic orders were prescribed per patient who received ear exams with a Wispr compared to 0.88 antibiotic orders per patient in the control group

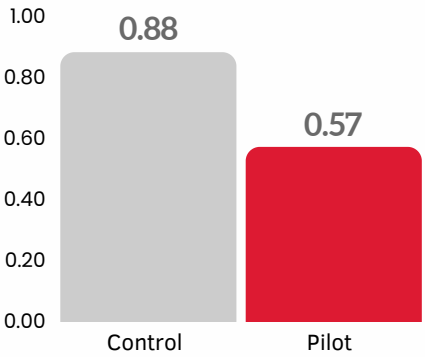
12% Reduction in Visits per Patient

On average, treatment of ear problems required 1.00 visit per patient when receiving care with a Wispr compared to 1.14 visits per patient in the control group

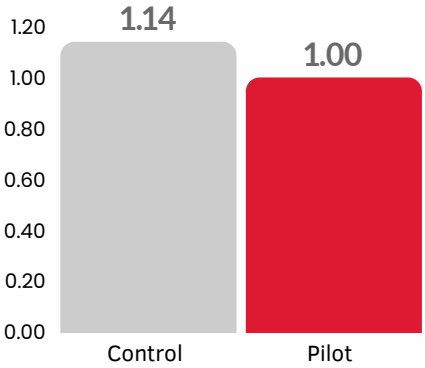
94% Positive Patient Experience

16 out of 17 patients surveyed from the pilot group rated their overall experience receiving an ear exam with the use of a Wispr as “excellent” or “good”

Average Number of Antibiotic Orders per Patient



Average Number of Visits per Patient



15/17 patients surveyed from the pilot group reported that the Wispr enhanced ear exam comfort compared to traditional otoscopes

13/17 patients surveyed from the pilot group reported that the Wispr enhanced their understanding of their ear condition and doctor discussions

Conclusion

The usage of an otoscope with improved diagnostic capabilities relative to traditional otoscopes enhanced the patient experience and resulted in a measurable decrease in the number of antibiotics prescribed and number of visits required to treat ear problems.

Wispr DIGITAL OTOSCOPE

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