

Building Capacity for the Medical Home: Managing Acute and Chronic Conditions in the Primary Care Setting

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BACKGROUND

- An essential aspect of the Medical Home model of care is to support the effective management of chronic conditions in the primary care setting.
- For many pediatric practices there is a tension in accommodating both acute and chronic care needs of patients in a timely fashion.
- Visits for acute pharyngitis are common in primary care pediatrics and it is estimated that about 75% of pharyngitis in children is of viral etiology.
- Managing pharyngitis on the telephone can be difficult and time consuming especially when parents feel pressured not to miss work, and schools require testing for GAS for children with pharyngitis before returning to classes.

GOAL

- To decrease unnecessary acute visits for pharyngitis while increasing capacity for the management of chronic conditions.

METHODS

INTERVENTION:

- Mailed 2000 rapid strep test kits to parents of children 6-12 years old in two sites of a suburban general pediatrics practice during the period of 1/2/2009 – 3/31/2009.
- Mailing contained introductory letter and instructions of when to use the kit, how to use the kit, and how to interpret the results.

INSTRUCTIONS FOR PARENTS:

- Asked parents to use detection kits for home testing when GAS pharyngitis was suspected.
- Instructed parents to use kit if their child had pain with swallowing and a temperature of 101.5 or greater, never to swab a child that had no symptoms, and to wait 48 hours if child has a sore throat and a fever less than 101.5.
- Education cards explained how to perform the test in detail including swabbing the child’s throat (Figure 1).
- If the test is positive families are instructed to come into the office for evaluation.
- Antibiotics were not given over the phone.
- All positive results at home were repeated in the office.
- Informed parents their child did not have to be seen if the test was negative and the sore throat and fever resolved in less than 48 hours.

REPLACING UNNECESSARY VISITS WITH CHRONIC CONDITION MANAGEMENT:

- Obesity is a significant health condition affecting many patients in this community. About 24% of all patients in this practice had a BMI above the 85 percentile.
- An Obesity Management Program was developed, formalized, and launched two months before the kits were distributed.

SETTING:

- Pilot practice has
 - ~11,000 patients
 - ~36,000 visits per year
 - ~50% of all visits are for acute non-urgent complaints
- Sore throat is the 2nd most common non-urgent complaint leading to acute visits in the office, with otitis media being the most common.

Figure 1. Strep test education cards

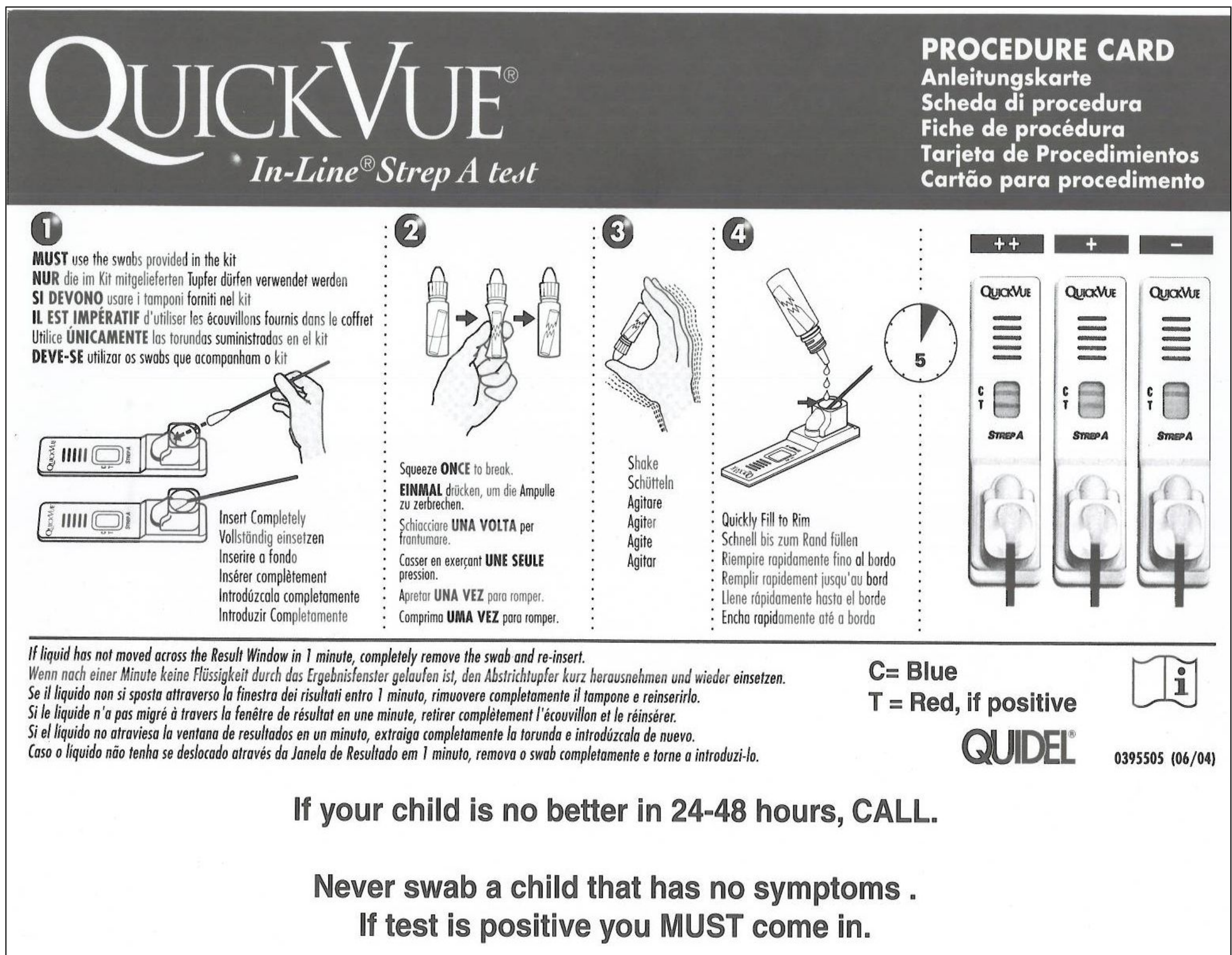
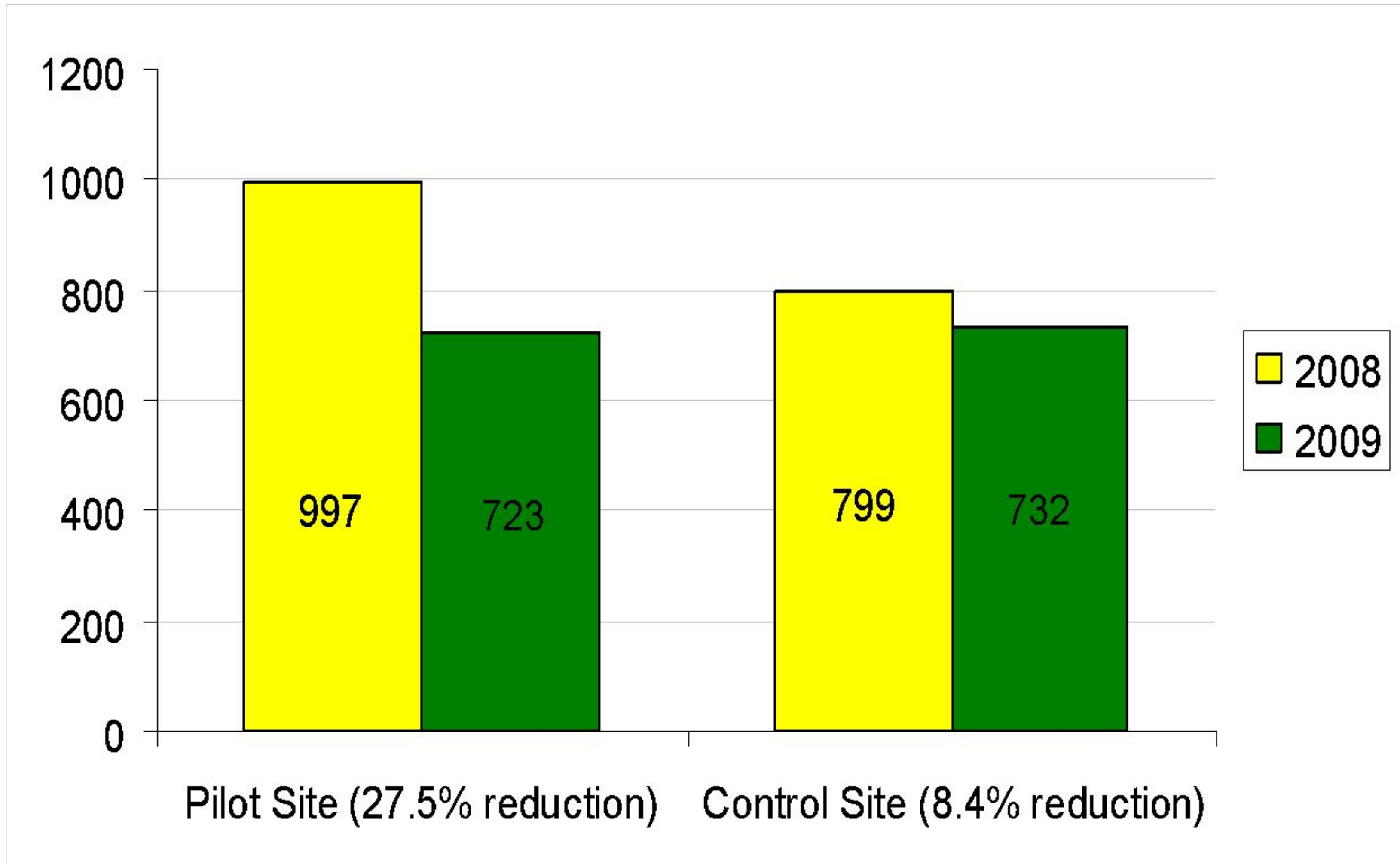


Figure 2. Number of in-office strep tests



p=0.0009 by Chi-Square

RESULTS

- During the period of 1/2/2008 – 3/31/2008 there were 997 strep tests done in the practice at the pilot site and 799 done at the control site (approximately the same size in number of patients and in number of visits per year, and a mix of urban and suburban families). During the period of 1/2/2009 – 3/31/2009 there were 723 strep tests done in the practice at the pilot site and 732 done at the control site (Figure 2).
- There were 388 Obesity Management visits during the period of 1/2/2009 - 3/31/2009, up from 267 visits from the same time period the year before.
- Revenues collected for Obesity Management were 30% higher per visit than for a strep visit.
- The cost to the practice for kits, staff time, and mailing of 2000 kits was \$15,000.

POTENTIAL CONCERNS ABOUT THE USE OF STREP KITS BY PARENTS:

- Increase treatment for GAS due to parental overuse and detection of children who were carriers.
 - To prevent this, parents were sent the education materials by mail and email and all positive tests were confirmed with an office visit. There was an observed reduction on the number of visits for sore throats.
- Tests performed by parents could have a high false negative rate and true cases of GAS pharyngitis would be missed leading to complications due to delay of treatment.
 - Instructions mailed to parents explicitly emphasized to seek care if symptoms failed to improve after 48 hours.
 - There were no observed cases of GAS complications reported by MDs and NPs in the practice.

CONCLUSIONS

- Use of a GAS rapid detection kit by parents whose children had pharyngitis in a suburban pediatric practice was associated with a decline of 27.5% in acute non-urgent visits for sore throat.
- This provided needed capacity for increased management of obesity with a formalized clinical visit.
- The reduction in visits for strep has allowed for an additional 1000 visit slots for our obesity management program.
- Despite this shift from management of acute to chronic disorders, there was no concomitant loss in revenues for the practice.
- The significance of these findings is limited by the small sample size involving suburban practices only.
- We did not measure the number of tests parents utilized though we tracked the number of tests purchased.

NEXT STEPS

A prospective randomized controlled trial could offer greater insights about the sensitivity and specificity of GAS rapid testing done by parents at home and its impact on decreasing unnecessary medical visits for self resolving uncomplicated illness.

DISCLOSURES

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