

RELIABILITY OF PARENTAL SELF-REPORT OF INHALED CORTICOSTEROID ADHERENCE IN INNER-CITY MINORITY CHILDREN WITH PERSISTENT ASTHMA

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Background/aims: Physicians often rely on parental self-report of inhaled corticosteroid (ICS) adherence to guide asthma management. We examined reliability of parental self-report in assessing ICS adherence.

Methods: Prospective observational study of parents of young children with persistent asthma. At enrollment, children received a new, marked ICS with a dose counter. Parents were instructed to administer ICS 2 puffs twice daily. If used as directed, 120 actuations suffice for 30-days. Thirty days post-enrollment, we measured ICS adherence by parental self-report and objectively, using the number of puffs left on a dose counter. Parental self-reported ICS adherence was defined as: 100%, administered ICS "every day"; 75%, "almost every day"; 50%, "several times a week"; 25%, "once a week"; and 0%, "less than once a week". Adherence was calculated as the number of puffs used relative to the number of puffs expected to have been used at 30-day follow-up. Wilcoxon signed-rank test compared the two adherence methods.

Results: 40 parents participated (mean age 32.7 (SD 6.6), 66% Hispanic). Parental self-report overestimated ICS adherence (40% of parents reported being 100% adherent vs. 5% being 100% adherent as per dose counter). Parents under-reported nonadherence (3% reported 0% adherence vs. 10% having 0% adherence as per dose counter). Wilcoxon signed-rank test revealed a statistically significant overall difference between parental self-report and objectively measured adherence ($p < .0001$).

Conclusions: Parental self-report proved to be a non-reliable method for assessing ICS adherence. A dose counter that most ICS inhalers are equipped with may be a more reliable alternative measure.