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### Automating a Well Child Visit

Daniel Merrill

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## Automating a Well Child Visit

**Submitting/Presenting Author (must be a trainee):** Dr Daniel Merrill  
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 Resident/Ph.D/post graduate ( $> 1$  month of dedicated research time)  
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**IRB Number:** None

**Describe role of Submitting/Presenting Trainee in this project (limit 150 words):**

Primary Author to improve well child exams in the Red Clinic (med/peds) at University Health

**Background, Objectives/Goal, Methods/Design, Results, Conclusions limited to 500 words**

### Introduction:

Well child visits allow physicians to evaluate developmental milestones, administer vaccinations, and provide age-appropriate screenings for their patients. These screens include providing vitamin D prescriptions for infants up to four months old, fluoride application in children six months to five years old, and screening for lead and hemoglobin abnormalities in children who are one and two years old. Sometimes, a busy physician is appropriately focused on parental concerns and may forget about these important screens. One way to address this issue would be in the creation of a standardized "dot phrase" to be utilized when documenting a patient visit to ensure consistent high quality care. This study evaluated if a dot phrase would be superior to paper charting in regards to providing age appropriate screening measures in a resident run clinic.

### Methods:

Standardized dot phrases were created in the electronic medical record (EMR) and customized to the appropriate screens per age of a child as recommended by the American Association of Pediatrics (AAP). Residents were then educated on how to access these templates and instructed to utilize them with each pediatric visit. We then performed a single center, retrospective chart review of children aged 1-18 who had well child visits from January 2020 to December 2020 which yielded 1,303 well child visits of which 1156 were usable for our study. The charts were then analyzed to determine if adaptation of the dot phrase led to an increase in the performance of the following metrics: Vitamin D prescriptions, fluoride application, and lead and hemoglobin

level screening. The percent adherence of each category was then compared between residents previously using paper charts versus residents now utilizing dot phrases.

Results:

Vitamin D prescriptions were issued in 70% of visits with paper charts and 90% of visits with a dot phrase ( $p < 0.01$ ). Dental fluoride was applied in 65% of visits with paper charts and 63% of visits with a dot phrase ( $p = 0.73$ ). Lead screening was performed in 80% of visits with paper charts and 85% of visits with a dot phrase ( $p = 0.41$ ). Hemoglobin screening was performed in 83% of visits with paper charts and 86% of visits with a dot phrase ( $p = 0.55$ ).

Conclusion:

We show that utilizing a standardized dot phrase led to a significant increase in vitamin D prescriptions. Fluoride application appears to be unaffected which was attributed to residents documenting a visit after the patient leaves clinic. If residents documented during the visit, the dot phrase would have brought this action to their attention and assured compliance. Lead and hemoglobin screens were improved however not statistically significant. We attributed this to the lack of data as only 178 visits were at the one and two month visit. Further chart review of these visits would be beneficial. We propose that residency clinics adopt standardized processes for screening measures to ensure proper care of their patients.