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## Background

- IV insertion is a common painful pediatric procedure in the ED.
- Painful IV experiences can have long-term impacts: needle phobia, decreased medical adherence, and negative nurse / physician satisfaction.
- Fast-acting interventions to reduce IV insertion pain are available.
- **SMART Aim: Increase the proportion of "less ouch" non-critical IVs placed from a baseline of 8% to 50% within 12 months**

## Interventions

- A multidisciplinary team of nurses, physicians, child life specialists, and pharmacists created evidence-based age-dependent "less ouch" algorithm for IV insertions.

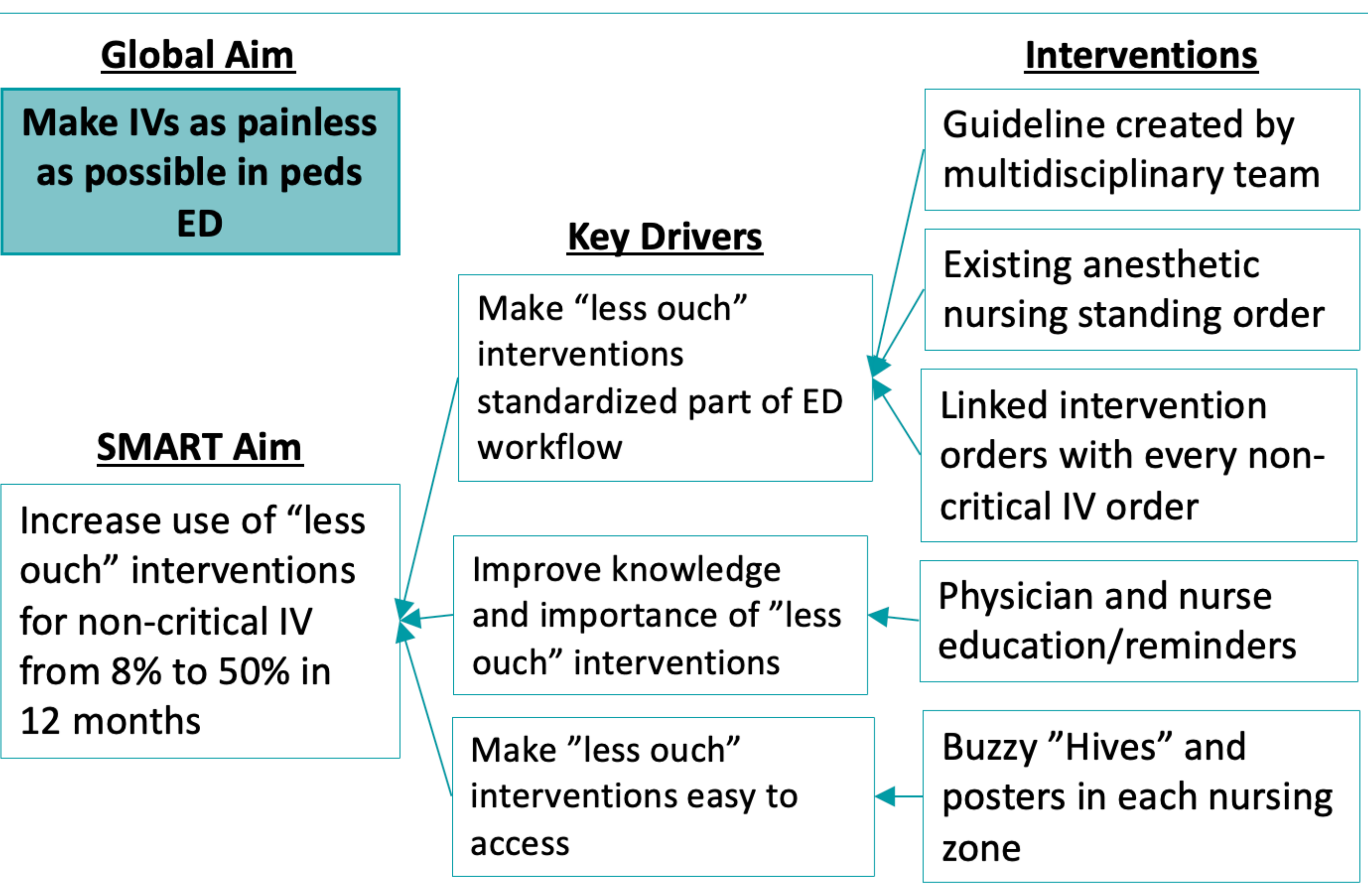


Figure 1: "Less Ouch IV" Key Driver Diagram

## Results

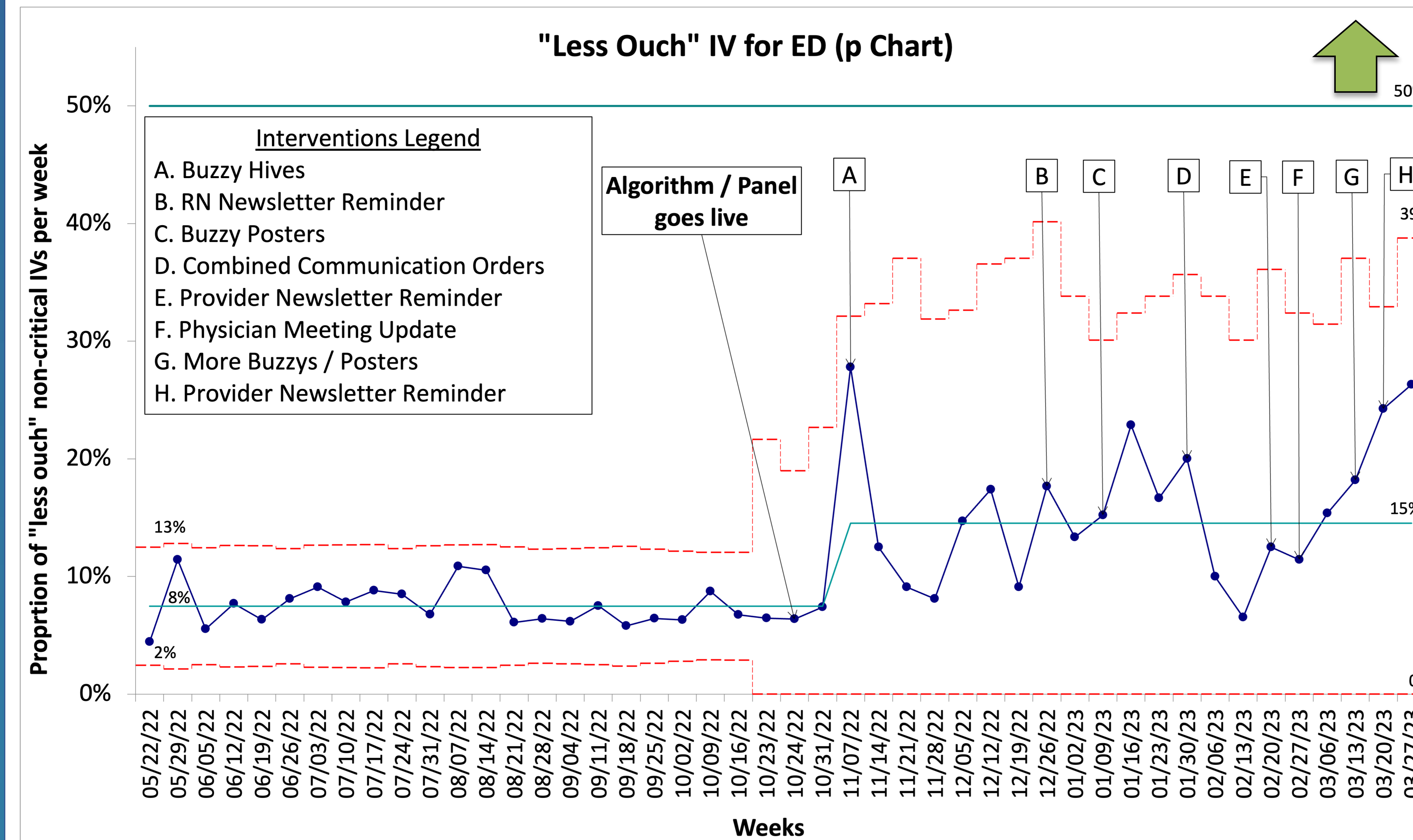


Figure 2: Proportion of non-critical IVs using age-appropriate pain reducing interventions during the baseline period (5/22/22-10/23/22) and after the initiative was introduced (10/24/22-3/31/23)

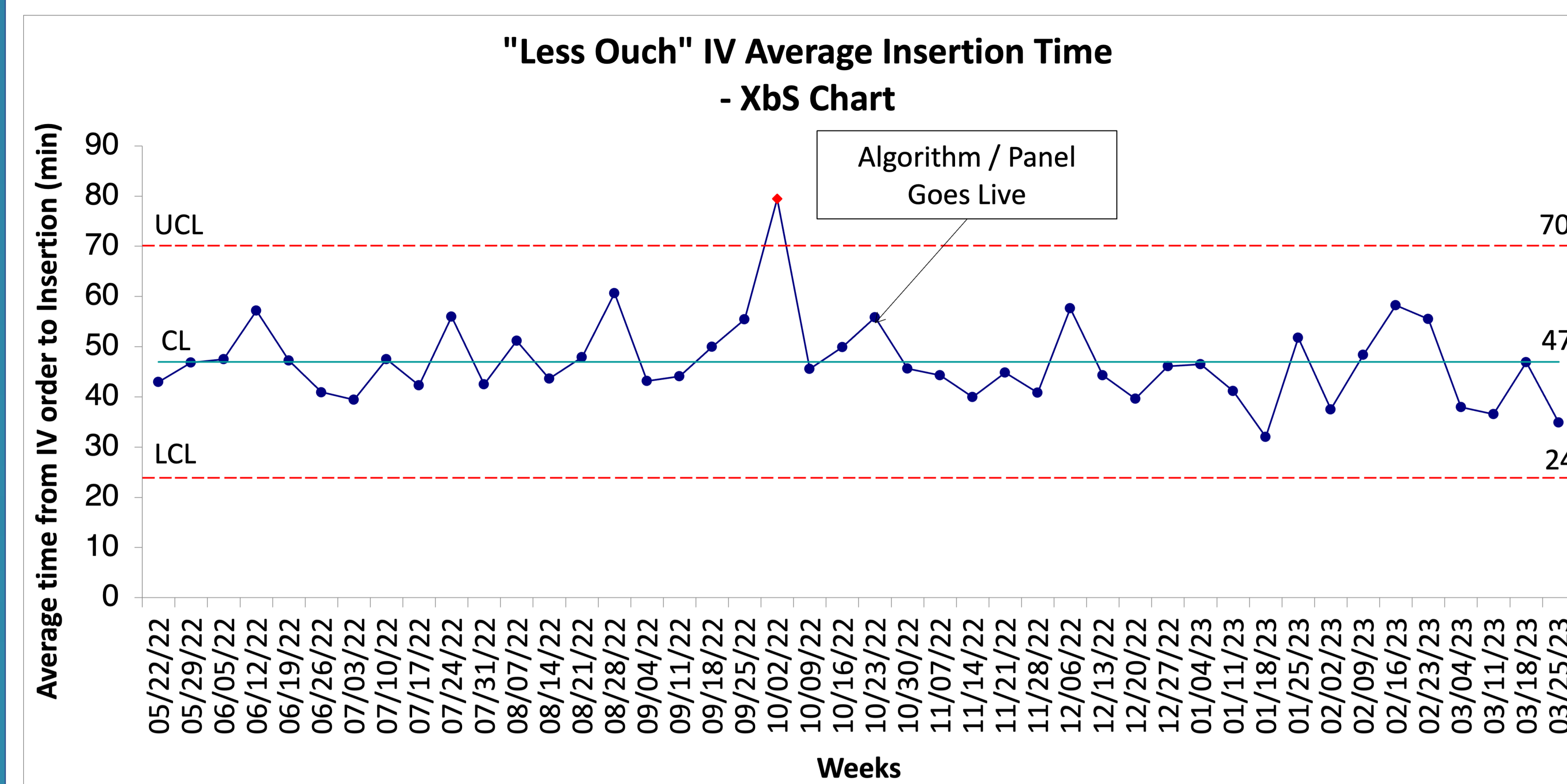


Figure 3: Average time from order to insertion of non-critical IVs during the baseline period (5/22/22-10/23/22) and after the initiative was introduced (10/24/22-3/31/23) remained unchanged

## Algorithm

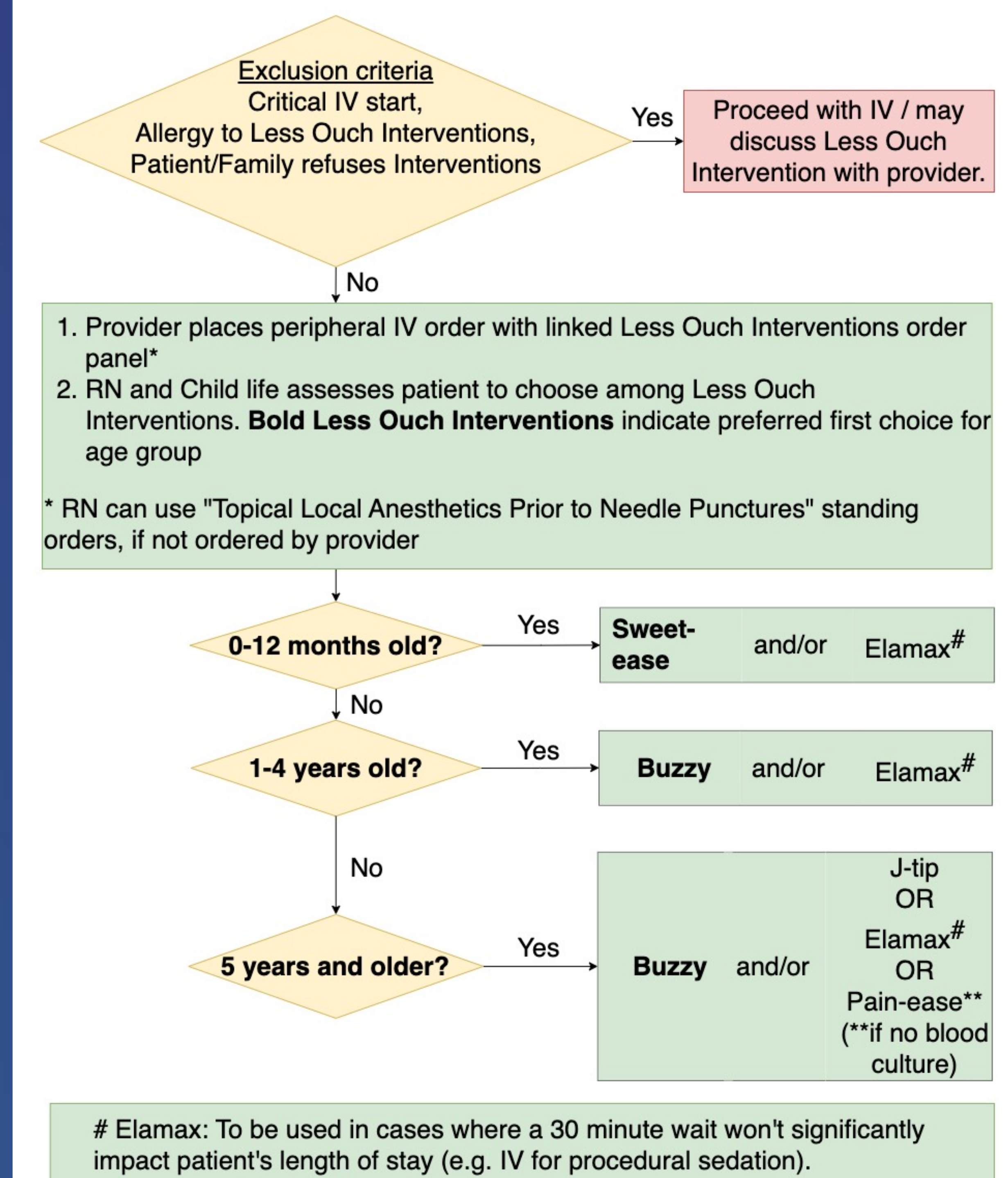


Figure 4: Implemented evidence-based age-dependent "less ouch" algorithm for IV insertions

## Conclusions

- We increased the proportion of non-critical IVs placing using age-appropriate pain reducing interventions without increasing time to IV insertion with this age-based algorithm, IV order panel, and periodic education.
- Future efforts will focus on increasing and sustaining adherence.