

# Effects of a Clinical Nursing Protocol on Intravenous Piggyback Infusion Practice



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## Background

- At a 483-bed tertiary urban facility, nurses did not have a standardized practice for administering Intravenous Piggyback (IVPB) antibiotics prior to March 2023
- Practice variability could lead to violation of medication rights and nurses practicing outside of their scope, and cause potential harm to patients
- Literature identifies that best practice for administering IV antibiotics is done by utilizing primary infusion tubing with secondary tubing set up as an IVPB to ensure the full dose of medication is administered

## Purpose

- To review if the introduction of a nursing protocol policy impacted adherence to best-practice in utilizing IVPB set up for the administration of IV antibiotics

## Methods

- This project involved review of IV pump data of the top ten antibiotics administered in the six months before and after policy implementation in March 2023
- The Wilcoxon rank-sum test was used to compare the proportions of primary and secondary infusions

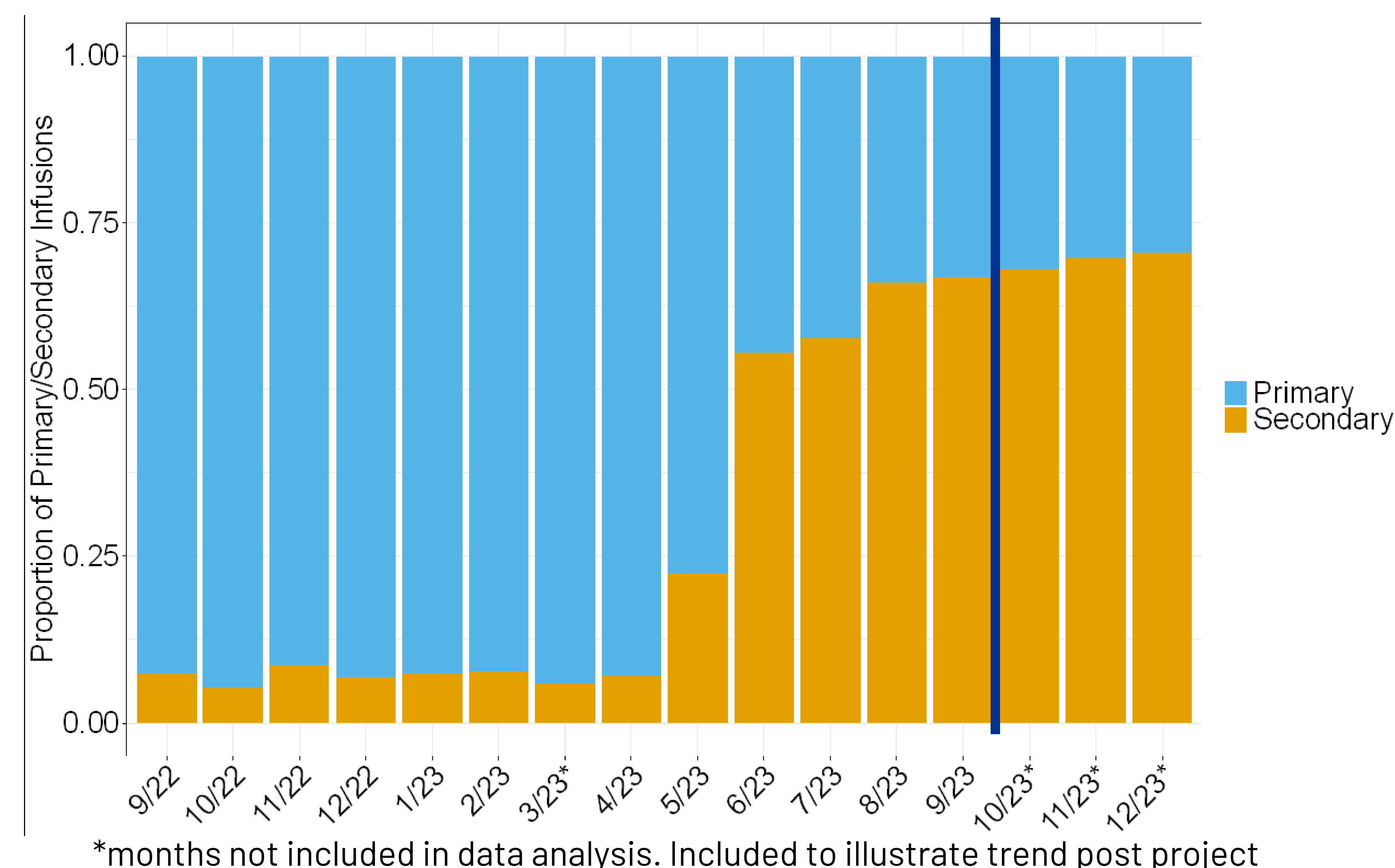
## Results

- Significant increase in the proportion of total secondary infusions post-policy was detected ( $p=0.026$ ), indicating adherence to the clinical nursing protocol
- Figure 1 shows proportions of all antibiotics infused per month, including three months past the study timeframe

## Discussion

- Post-policy implementation, 45.6% of the total antibiotics were programmed as secondary infusions compared to 7% of the total in the pre-policy timeframe
- No other potential variables of this nursing practice were evaluated in this project

**Figure 1. Proportion of primary and secondary infusions per month in the study period.**



## Implications for Practice

- There are opportunities for further studies into policy adherence and clinical nursing protocols
- The scope of this practice gap, along with the impact on overall patient outcomes is largely unknown as evidenced by a lack of publications on this topic

## Acknowledgments

Koratney Speidel, BSN, RN, CCRN  
Jaime Dunn, MBA, CHC, CPPS, CPHQ  
Grace Oda, BS

**For references and additional information, please use the QR code above to view the electronic poster online.**