

# Adherence and the relationship to frequency of infusions in pediatric patients with hemophilia A and B

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Adherence  
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## Introduction and Objectives

- Prophylaxis is the standard of care for pediatric patients with hemophilia A and B in Canada.
- Prophylaxis infusion frequency is prescribed by the hematologist considering several factors including but not limited to: age, bleeding history, family history, venous access, psychosocial issues.
- It has been suggested that prophylaxis regimens with a higher frequency of infusions may be a limiting factor to adherence.<sup>1,2,3</sup>
- The objective is to determine the relationship between adherence and frequency of infusions.

## Methods

- A sample of pediatric patients (n=23) with moderate/severe hemophilia A and B on prophylaxis were included in the analysis.
- Adherence was calculated as a percentage of actual infused dose for prophylaxis divided by prescribed dose.
- Actual infused dose was determined by infusion diaries and factor inventory.
- Descriptive statistics were calculated and a Wilcoxon rank sum test was used to determine the relationship between adherence and frequency of infusions.

## Results

- Refer to the table on the right for a summary of the results.
- There was not a significant difference in the level of adherence between patients receiving two infusions per week (n=4, median adherence 99.5%), and participants receiving 3-4 infusions per week (n=19, median adherence 96.0%), p=0.053.

Infusion frequency	Sample Size	Median	1 <sup>st</sup> and 3 <sup>rd</sup> Quartiles	Rank Sum	Expected
2X/week	n=4	99.5	98.5, 100.0	71.5	48.0
3-4X/week	n=19	96.0	88.0, 99.0	204.5	228.0
			z=1.932 p=0.053		
Variance	Unadjusted variance = 152.00 Adjusted for ties = -4.06 Adjusted variance = 147.94				

## Conclusions

- Adherence to physician recommendations does not appear to be associated with infusion frequency.
- However, it is unclear if the borderline significant results (p=0.053) are because of the small sample size (n=23) or because of a lack of association.
- Future studies should include larger sample sizes which will allow for regression analysis to be used and covariates such as interaction with the comprehensive care team and joint health status as potential predictors of adherence to be explored.
- This study also demonstrates a high degree of adherence which limits further improvement.

## References

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