

CASE STUDY

Children's Hospital Achieves Zero Blood Culture Contaminations (BCCs) using Kurin Lock®

Oishei Children's Hospital, Buffalo, NY.

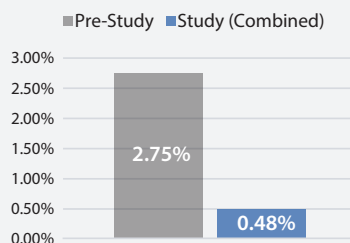
SITUATION

Oishei Children's wanted to reduce blood culture contaminations (BCC) and improve on historical rates that were closer to 3%.

With Kurin, they collected almost 1200 cultures without a single contamination. This data was presented at APIC in 2021.



Overall BCC Rate Comparison Pre-Study vs Study Period



Staff collected almost 1200 cultures with **ZERO** contaminations when using Kurin.

FPBCs that remained in the trial periods occurred only when Kurin was not used.

KEY TAKEAWAYS

- This was the first published clinical study in a pediatric hospital demonstrating the impact of Kurin's PIV product.
- During the two phases of the trial, the ED staff collected almost 1200 cultures with ZERO contaminations when using Kurin. The overall rate during the trial was ~0.5% (0% with, 8.4% without).
- Clinical results showed ~80% decrease overall in the BCC rate compared to their historical average.

BASELINE PERFORMANCE

As in most facilities, false positive blood cultures (FPBCs) were an ongoing problem. Rates were generally near 3% but occasionally reached 5% or more. Blood cultures were obtained by trained RNs. Leadership provided additional education to nurses who drew FPBCs but 1:1 education yielded only temporary results.

KURIN IMPLEMENTATION AND PROCESS

Kurin was used in the first phase of the trial during the summer of 2018. After comparing data to historical averages, a second trial period was completed during the summer of 2019 with similar results. Hospital policy was to collect cultures from a freshly placed IV, so Kurin's low-volume PIV was the appropriate product to accommodate this policy.

RESULTS

1st Study Period • 2018			
	BC Collections	FPBC	FPBC Rate
Kurin Used	303	0	0.00%
Kurin Not Used	38	4	10.53%
Total (Blended)	341	4	1.17%

2nd Study Period • 2019			
	BC Collections	FPBC	FPBC Rate
Kurin Used	872	0	0.00%
Kurin Not Used	33	2	6.06%
Total (Blended)	905	2	0.22%

TOTAL OF STUDY PERIODS			
	BC Collections	FPBC	FPBC Rate
Kurin Used	1175	0	0.00%
Kurin Not Used	71	6	8.45%
Total (Blended)	1246	6	0.48%

SUMMARY

Rates dropped ~80%, down to ~0.5% during the Kurin trial periods. When measuring rates when Kurin was used, the children's hospital reported a 0.0% rate. The authors reported this result as clinically significant with a p-value of 0.00001.