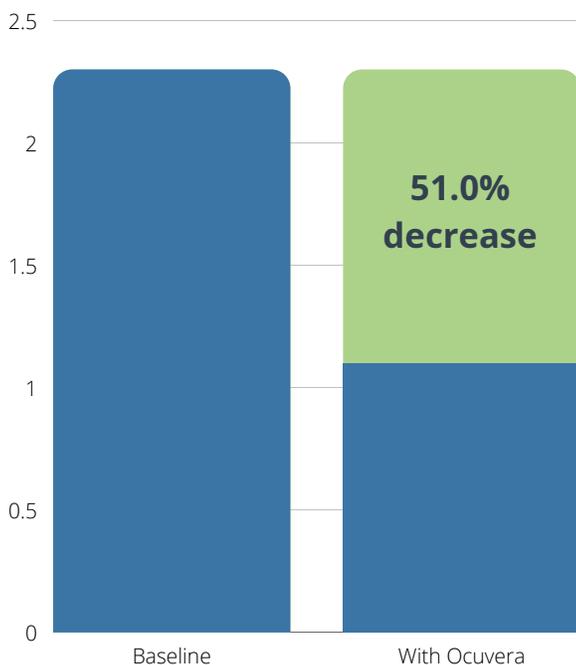


## STATISTICAL SIGNIFICANCE

of Fall Rate Reductions with the Ocuvera System

MERCY HOSPITAL JEFFERSON

Unassisted Bed-Origin Falls  
per 1000 patient days



Unassisted, bed-origin fall rates before vs. after Ocuvera system was implemented.

### ABOUT OCUVERA

The Ocuvera system is designed to reduce the risk of patients falling from their bed or chair. Using artificial intelligence, the system automatically monitors patients and sends a video alert to nursing staff if a patient tries to get up on their own. These predictive alerts let nurses respond to patient needs.

### PURPOSE OF THE REPORT

We analyze whether Mercy Jefferson's Med2 unit achieved a statistically significant reduction in falls originating from the bed or chair with use of the Ocuvera system.



## STATISTICALLY SIGNIFICANT

### Reduction in Unassisted, Bed-Origin falls

	Events	Patient Days	Fall Rate (per 1000 pt. days)	P Value
<b>Before Ocuvera</b>	20	8788	2.2758	NA
<b>After Ocuvera</b>	11	9860	1.1156	0.0467



#### Data

Ocuvera performed this analysis based on fall data from Mercy Jefferson. This data included falls from Before Ocuvera (June 2020 - May 2021) and After Ocuvera (June 2021 - May 2022).



#### Methodology

Looking at bed-origin, unassisted falls, the data was separated into two categories: before and after the Ocuvera system was implemented. The one-tailed Mann-Whitney-Wilcoxon rank sum test was performed to analyze the difference between the two groups.



#### Hypothesis

The claim is that Mercy Jefferson Med 2 has achieved a statistically significant decrease in their unassisted, bed-origin fall rate with use of the Ocuvera system.

#### RESULTS

From the results in the table above, with a p-value of  $< 0.05$ , we reject the null hypothesis and conclude that the fall rates are statistically significant with a claim of a statistically significant decrease in unassisted, bed-origin fall rates after the Ocuvera system was implemented.

#### CONCLUSION

Subsequent calculations reveal that unassisted bed-origin falls have decreased by 51%. Although a statistically significant decrease in chair-origin falls was not found, these falls still decreased by 25% after use of the Ocuvera system. The Ocuvera system continues to improve, further reducing fall rates.