Respondents	Krippendorff's Alpha Coefficient	Level of agreement
PEM Attendings		
0 scans	0.630	Unacceptable
1-24 scans	0.728	Moderate
≥25 scans	0.740	Moderate
PEM Fellows		
1-24 scans	0.757	Moderate
≥25 scans	0.811	Good
All Respondents	0.735	Moderate

Table 3.

24 Utilization and Cost Savings of an Emergency Department Acetaminophen Route Pathway

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Objectives: To evaluate the cost savings of an acetaminophen route pathway in patients presenting to the emergency department.

Background: The use of intravenous acetaminophen (IVA) has been increasing since it was approved by the Food and Drug Administration in 2010. However, the cost of IVA is orders of magnitude more than the oral version with significant cost variation based on hospital formulary. Despite the cost difference, multiple studies have shown that the IV version is not more effective than enteral forms. By implementing an Acetaminophen Route Pathway (ARP), we hypothesize a reduction in unnecessary use of IVA and significant cost savings.

Methods: A prospective, before-after controlled study was conducted. ED ARP was designed by expert/consensus opinion and rolled out with a discussion at faculty and resident staff meetings followed by reminder emails. The electronic medical record logged every instance of IVA administration 12 months before and after implementation of an ED ARP (with a 90 day washout period) along with total ED volumes. The absolute number of doses as well as per patient utilization of IVA were calculated. Fisher's exact test was used to assess for significance.

Results: During the pre ARP phase (03/01/18-02/28/19), a total of 54,533 presented to the ED with 2,703 doses of IVA given (4.96%). In the post ARP phase (06/01/19-05/31/20), a total of 48,278 presented to the ED with 582 doses of IVA given (1.21%). At $689.29 per dose, this corresponds to a cost of $1,863,151 ($34.16 per ED patient registered) in the before group compared with $401,166.80 ($8.31 per ED patient registered) in the after group. This corresponds to more than $1.2 million dollar in savings, when adjusted for the lower volume post ARP. Fisher's exact test was significant at $p < 0.001$, indicating that the decrease in IVA use and cost were significant.

Conclusion: A straight forward set of guidelines regarding when IVA should be used versus enteral versions was able to drastically reduce unnecessary pharmaceutical cost in the ED. While the magnitude of cost savings will vary based on the hospital, this is a simple implementation that will increase value without loss of effectiveness.