



## INTRODUCTION

- As a tertiary care hospital with pediatric specialists, UCDMC receives many pediatric transfers from community hospitals every year, and some of these are likely to be Potentially Avoidable Transfers (PAT).
- Definitive pediatric care is increasingly dependent on referral centers, causing care to become highly regionalized, even for common conditions. As a result, from 2006-2011, pediatric transfers increased by 24.6% in 4 states, including California (1).
- Studies have found that up to 39% of pediatric transfers are PAT (2).
- PAT are costly for hospitals, and incur risks to patients.
- Younger age was found to be independently associated with transfers from community EDs to a tertiary care ED that did not result in specialized tests, interventions, consults, or admission (3).

## OBJECTIVES

- In order to better understand pediatric PAT, we described the characteristics of these patients as well as their pre-transfer location.
- We hypothesized that a considerable proportion of pediatric transfers to UCDMC would be PAT. Furthermore, younger children would be more likely to be PAT, and gender and insurance status would not have a significant influence on the proportion of PAT.

## METHODS

- Cross-sectional analysis using EMR. Patients aged 0-17 years who were transferred to UCDMC 10/2015 - 10/2016.
- PAT were defined as patients discharged home within 24 hours who didn't receive specialized tests, interventions, consultations, or diagnoses.
- Analysis: Descriptive statistics performed for each variable, comparing PAT versus non-PAT. For each categorical variable, a univariate logistic regression analysis was performed to generate a p-value based on a likelihood ratio test for variation among levels. Proportion PAT was calculated as the ratio of transfers categorized as PAT to the total number of transfers. Analysis was done using STATA 13.

## RESULTS

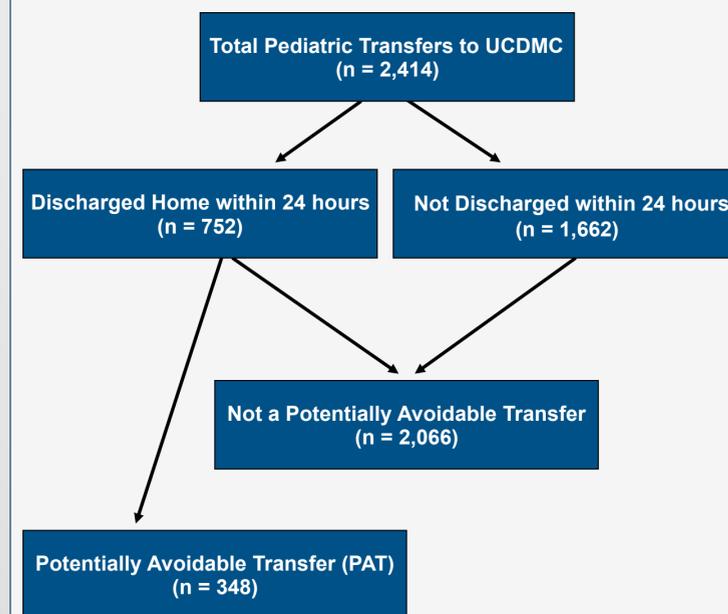


Figure 1: Of pediatric transfers to UCDMC, 14.4% were PAT.

## RESULTS

	PAT	Non-PAT	Total	Proportion PAT, %	p
<b>Age group</b>					<0.001
0-1 years	117	763	880	13.3	
2-5 years	109	427	536	20.3	
6-11 years	68	410	478	14.2	
12-17 years	54	466	520	10.4	
<b>Gender</b>					0.99
Female	148	879	1027	14.4	
Male	200	1,187	1,387	14.4	
<b>Insurance</b>					0.33
Private	102	586	688	14.8	
Public	243	1,474	1,717	14.2	
Self-pay/other	3	6	9	33.3	

Table 1: Patient Characteristics

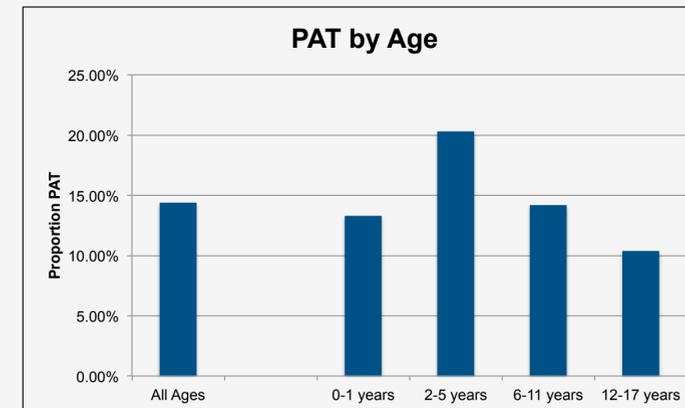


Figure 2: The difference between PAT across the four age groups was significant ( $p < 0.001$ ).

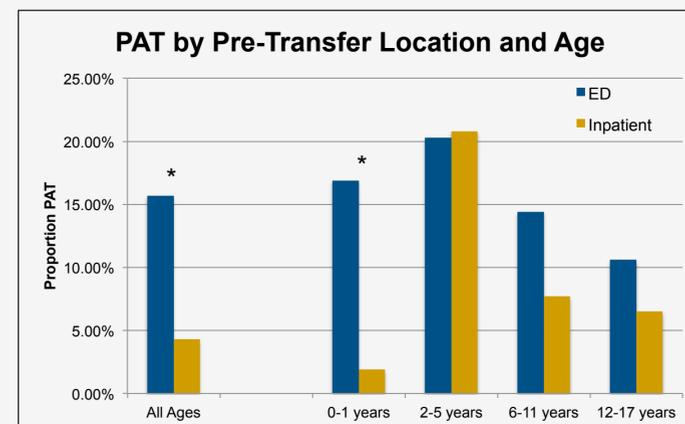


Figure 3: Proportion PAT by pre-transfer location (ED versus inpatient unit), stratified by age. \* $p < 0.001$ .

## DISCUSSION

- A smaller proportion of patients were PAT compared to other studies, but 14.4% is still a considerable proportion, and suggests that we could benefit from telemedicine or more training at transferring facilities.
- Younger children, especially those aged 2-5 years old, are most likely to be PAT, so training at transferring hospitals should emphasize evaluation and treatment of younger patients. As children get older, the PAT proportion decreases. Children aged 0-1 appear to be the exception, since many of them are neonatal patients who require a higher level of care.
- The proportion of PAT is significantly higher in patients transferred from EDs versus inpatient units, indicating that training tailored to ED physicians at transferring hospitals would be effective in decreasing PAT. Furthermore, 0-1 year old patients were the only age group shown to have significantly more PAT coming from EDs than inpatient units, suggesting that trainings tailored to transferring ED physicians should emphasize evaluation and treatment of patients in that age group.

## REFERENCES

- Franca UL, McManus ML. Trends in Regionalization of Hospital Care for Common Pediatric Conditions. *Pediatrics*. 2018; 141(1).
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- Peebles ER *et al*. Factors Associated With Discharge Home After Transfer to a Pediatric Emergency Department. *Pediatric Emergency Care*. 2017.

## CONTACT

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