

Division of Urology

Renal Trauma in Pediatric Patients Transferred to Tertiary Care Center

SCHOOL OF MEDICINE

UNIVERSITY OF COLORADO
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BACKGROUND



Pediatric patients with severe kidney injuries who present to hospitals often need transport to tertiary trauma centers



Initial imaging, management, and outcomes have not been closely studied in transferred patients versus those who presented directly to a tertiary care center

Hypothesis: Transferred patients will have received diagnostic imaging outside of trauma protocols, and a greater distance from a tertiary care center will correlate with increased complications.

METHODS



Chart review of 35 pediatric renal trauma patients of any AAST grade at single institution



Compared transfer status and distance with diagnostic imaging used, immediate complications, number of follow-up visits, and long-term sequelae.

RESULTS



26/35 patients were transferred from outside hospital: No difference in initial imaging, immediate complications, follow-up, or number of follow-ups between groups



13 patients transferred from >=50 miles away: Immediate complications non-significantly greater when compared to those transferred from <50 miles away (risk difference: 0.3, p=0.16).

CONCLUSIONS



Immediate complications may be increased in patients transferred from >=50 miles away compared to <50 miles



Future, larger studies needed to establish standardized management protocols

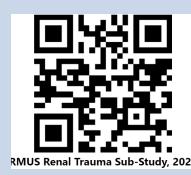
KEY POINTS

Protocol challenges may arise in pediatric patients with kidney injury requiring transport that may affect clinical outcomes.

While diagnostic imaging appears to be similar between transferred and non-transferred patients, immediate complications may be increased in patients being transferred from hospitals >=50 miles away.

Further studies are needed for generalizable results in order to establish standardized management protocols.







DATA & ANALYSIS

Table 1

Variable Tested		Not Transferred	Transferred	p-value
# Initial Diagnostic Renal Images Taken				0.54
	1	7	22	
	2	2	4	
# Repeat Images During Initial Diagnosis				0.55
	0	9	22	
	1	0	4	
# Immediate GU Complications				0.30
	0	9	20	
	1+	0	6	
Mean # Hours Between Injury and Tertiary Care Arrival		2.6	9.8	0.006*
Follow Up Visit with Urology?				0.10
	N	5	6	
	Υ	4	20	
Mean # Follow Up Visits with Urology		1.3	1.9	0.31

Table 2

Variable Tested		<50 Mile Transfer	>=50 Mile Transfer	p-value
# Immediate GU Complications				0.16
	0	12	8	
	1+	1	5	
# Long-Term Sequelae				>0.99
	0	12	11	
	1+	1	2	
Mean # Hours Between Injury and Tertiary Care Arrival		9.6	10.0	0.09
Follow Up Visit with Urology?				>0.99
	N	3	3	
	Y	10	10	
Mean # Follow Up Visits with Urology		1.7	2.2	0.67

*Statistically Significant

DISCLOSURES

No financial disclosures