Prophylactic Tranexamic Acid for Reduction of Intraoperative Blood Loss during Cesarean Delivery: A Retrospective Analysis



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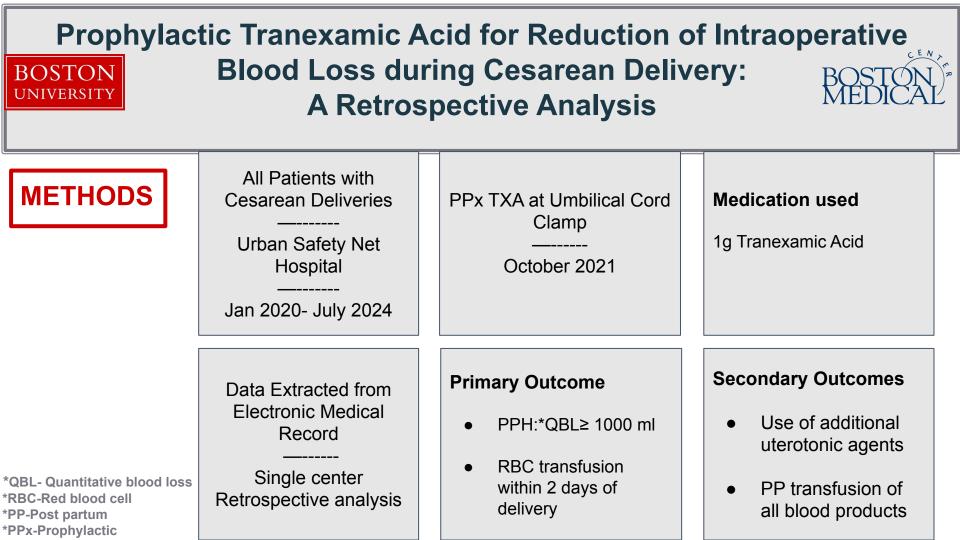
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BACKGROUND

- Postpartum hemorrhage (PPH) is the 2nd leading cause of pregnancy related mortality in the United States
- Although the prophylactic use of tranexamic acid (TXA) during cesarean delivery (CD) has been associated with decreased postpartum blood loss, evidence of this clinical benefit remains conflicting

AIM

• To investigate the efficacy of TXA prophylaxis on PPH and red blood cell transfusion rates during CD at our institution



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MEDICAL

	Outcome	TXA Group	Control Group	Unadjusted Difference	p-value
		(N = 2859)	(N = 1321)	(95% CI)	
RESULTS	Postpartum	1206/2847 (42.4%)	343/1288 (26.6%)	15.7 (12.7 to 18.8)	<0.001
	hemorrhage				
	(QBL ≥ 1000)				
	Additional	1108/2859 (38.8%)	251/1321 (19.0%)	19.8 (16.9 to 22.6)	<0.001
	uterotonic agents for				
	excessive bleeding –				
	#/total # (%)				
	Admitted to ICU –	46/2859 (1.6%)	15/1321 (1.1%)	0.5 (-0.3 to 1.3)	0.295
	#/total # (%)				
	Red-cell transfusion	255/2859 (8.9%)	29/1321 (2.2%)	6.7 (5.4 to 8.1)	<0.001
	by day 2				
		254 (2252 (2.424)			
	Blood transfusion	261/2859 (9.1%)	33/1321 (2.5%)	6.6 (5.2 to 8.0)	<0.001
1.	No. of red-cell units	1.9 ± 1.9	1.3 ± 0.9	0.6 (0.2 to 1.0)	0.003
	transfused				
	Thromboembolism	14/2859 (0.49%)	9/1321 (0.68%)	(-0.0076 to 0.0038)	0.5797

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Conclusion

- At our institution, prophylactic administration of TXA during CD:
 - Did not lead to a lower incidence of PPH or red blood cell transfusion within 2 days of delivery
 - Did not result in a lower incidence of hemorrhage related secondary outcomes
- Previous studies demonstrating improvement in these outcomes administered TXA prior to surgical incision
- Current protocol: Administration of TXA **10-20 minutes prior to surgical incision** with plan to reevaluate primary and secondary outcome measures