

## Progress in Transplantation

### Mobile application for communication increases the efficiency of organ procurement and transplantation

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Abstract:	<p>Background: Donor organ recovery is a complex process involving organ procurement organizations and multiple surgical teams from various transplant centers. Nearly 30% of discarded organs are wasted due to reasons related to improper coordination and communication.</p> <p>Problem statement: Lack of real-time communication results in many hours of preventable delay between procurement and transplant teams resulting in the high volume of organ waste, clinical frustration, and critical delays.</p> <p>Methods: A Plan-Do-Study-Act performance improvement methodology was utilized to design and implement a dedicated mobile communication application (app). Critical time points in the organ offer, procurement, and transplant processes were analyzed from the report of organ offers and relation coordination metrics were measured.</p> <p>Processes addressed: Members of procurement and transplant teams in Iowa were interviewed and a dedicated smartphone application was implemented to replace phone calls, emails, faxes, and text messages during upcoming kidney offers from 7/31/17 - 7/31/18.</p> <p>Outcomes: Teams reported a substantial increase in clinical productivity and case progress awareness, including a noteworthy reduction in phone calls. The relational coordination data indicated substantially higher relationship and communication quality with the app. The report of organ offer data revealed a 35% increase in organs transplanted and a 50% reduction in time from initial organ offer to transplant during the use of the mobile application.</p> <p>Implications for practice: The use of a dedicated communication application reduces clinical frustration and delays during the coordination of organ offer, procurement, and transplant. Technologies that improve communication have the potential to improve organ utilization.</p>