

Analysis of the Benefit of Implementing a Helipad for Rotation and Resupply of Low Titer O Whole Blood to Prehospital Entities

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Background/Case Studies:

Our blood center provides low titer O whole blood (LTOWB) to prehospital entities (air and ground) over a wide geographic region of over 26,000 square miles. The furthest prehospital entity is located 174 miles from our main distribution center and the LTOWB units are rotated twice per month

with each entity. With the high cost of couriers, our center sought a novel solution for rotation and resupply of LTOWB units to our prehospital entities. In September of 2021, we unveiled a helipad on our main campus to allow distant air medical units the ability to quickly rotate and/or resupply while enroute.



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Study Design/Methods:

The cost for construction of the helipad was calculated from facilities ledgers. The cost of the traditional route of LTOWB rotation and/or resupply was calculated using current courier rates and distances to each facility serviced. Finally, the current usage of the helipad for LTOWB rotation and/or supply was obtained from our inventory management software.





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Results/Findings:

Since the opening of our center's helipad, there have been over 50 helicopter landings for resupply that have taken the place of a needed courier visit. Helipad access allows for the immediate resupply of an air medical unit after a patient has used the units enroute to a local level I trauma center. The cost of the helipad was just under \$10,000 which included windsock installation, leveling and paving the asphalt, solar reflective lights, and the painting of the markings. The amount of money our center has saved in courier fees for the landings that have occurred to date equal \$7,121.95. Our center has been activated for multiple mass casualty events since the creation of the helipad. In one mass casualty event, our center delivered 15 units of LTOWB and 10 units of O negative packed red blood cells to the mass casualty site 85 miles away within 67 minutes of activation.



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Conclusion:

At the current rate of utilization, our center will start to see a financial return on investment around 28 months after implementing the helipad. In addition, development of a helipad at our blood center has reduced travel time to remote air medical units, allowed for quicker resupply after patient use, and allowed for quicker delivery of large amounts of blood products in a mass casualty event in a remote location.



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