

Medical drones for accident and emergency

July 12 2019, by David Bradley

Remote or computer-controlled aircraft, commonly referred to as "drones" could revolutionize the way in which emergency medical supplies, such as bags of blood plasma, are delivered to areas hit by disaster, accidents or other life-threatening situations. Of course, drones are costly and require skilled operators. Writing in the International Journal of Business Continuity and Risk Management, a team from the U.S. has undertaken a cost analysis of using drones for this purpose.

The team hoped to show that the delivery of emergency supplies using drones is economically viable in the context of road-traffic accidents. By looking at a range of scenarios where drones might be used the team's cost analysis supports their hopes, especially as the timely use of drones rather than ground vehicles could ultimately be a matter of life and death. Their particular focus could readily be generalized to other emergency situations given adequate additional data and the construction of appropriate scenarios for other types of emergency.

The team's analysis focused on two locations in Florida, one near Tampa, the other near Orlando. Both areas have at least one fatality every week due to a <u>road traffic accident</u> and so an improvement in the medical response in those areas could have a significant impact on total lives lost each year in the state. Of course, a road traffic accident will inevitably increase the level of congestion on already congested road networks and make it more difficult for paramedics and ambulances to reach the accident quickly. The use of drones could allow equipment and supplies to get to a site where paramedics may well have arrived on a motorbike, for instance.



More information: Sushil Raj Poudel et al. Drone transportation cost analysis for emergency medical products, *International Journal of Business Continuity and Risk Management* (2019). DOI: 10.1504/IJBCRM.2019.100416

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