

## Africa Emerges As A Leader In Life-Saving Deliveries By Drone

In a first for our country, the South Blood Transfusion Service (SANBS) will soon start delivering life-saving units of blood by drone. This ground-breaking pilot project will see drones loaded with two kilograms (up to four units) of blood and piloted remotely to areas where normal road delivery is difficult. The drones have a range of about 100kms and can travel up to 160km/hr, meaning blood can reach its destination far more quickly than has previously been possible.

This amazing initiative firmly entrenches the SANBS, an independent non-profit organisation, as one of the leaders in the discipline of blood transfusion. Supplying over one million blood products annually, the organisation is rated among the top blood services in the world - and this new drone project perfectly highlights why.

The project uses Tron Unmanned Aerial Vehicles (UAVs) - a highly specialised aircraft that, just like a helicopter, can take off and land vertically. They can fly at an altitude of 100 metres, and actively cool the blood while its being transported.

"The SANBS is determined to improve rapid access to life-saving blood products in rural areas through the use of drone technology," says Dr Jonathan Louw, CEO of the SANBS. "The concept is globally unique in that we will provide two-way logistics; patients can receive emergency "O negative" blood from one of our blood banks via drone. The same drone can then take that patient's blood sample to the blood bank for comprehensive cross-matching, and then safely and rapidly deliver compatible blood back to the patient."

# Blood is in the Air



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## Africa Leads The Way With Medical Use Drones



Africa is grossly underserved with “last century” infrastructure, such as trains and roads, so it’s ripe for the adoption of drone technology. And South Africa isn’t the only African country using drones to help save lives. American company Zipline is already operating medical delivery schemes in Rwanda, Tanzania and Ghana, revolutionising communities’ access to healthcare.

In Rwanda, a mountainous country with limited infrastructure, drones deliver

life-saving blood to remote clinics within just 15 to 30 minutes of receiving an emergency call.

Since the project launched in 2016, over 2 400 units of blood have been successfully delivered in this way. Most of the blood goes to mothers suffering from post-partum haemorrhage. Children with anemia caused by malaria are the second-largest group of recipients.

“Blood is challenging,” says Zipline CEO Keller Rinaudo. “It has a very short shelf life and it’s really hard to predict demand before patients need it. You are always trading off waste against access. To solve waste you want to keep the blood [or medicine] centralised. If you want to have lots of access, you keep lots of medicine at clinics. But if it expires, it wastes a lot of money.”

In Tanzania, the government announced it is also going to use Zipline to distribute blood and medicine by drone, serving 10 million people in some of the hardest to reach parts of the country.

In Ghana, Zipline’s drone medical delivery service is the largest in the world, with over 12 million people set to benefit. The service operates out of four hubs, each one of which has 30 drones. Up to 600 flights are made each day, delivering

blood supplies, vaccines and other life-saving medicines to 2 000 health care centres and clinics around the country.

“The service is a major step towards giving everyone in this country universal access to life-saving medicine,” says Ghanaian president Nana Akufo-Addo. “No one in Ghana should die because they can’t access the medicine they need in an emergency.”

“Africa can be a disruptor,” says Rinaudo. “This groundbreaking innovation is not happening in the usual centres of the high-tech world. Zipline represents a paradigm shift in the thinking that all artificial intelligence will start in rich countries and trickle down to poor countries. African nations are showing the world how it’s done.”

At Kaelo, we believe in quality healthcare for all, no matter who you are or where you live. This is why we’re so excited by innovations such as these, that bring life-saving medicine to areas usually bypassed by this kind of technology. To find out about how we’re helping to provide more South Africans with access to quality healthcare, [contact us](#) today.

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