HOW THE PANDEMIC IS USHERING IN A NEW ERA OF AIR AMBULANCES

News / Business aviation



Medical air transport has always played a pivotal role in providing patients with top-notch care during any health emergency. Air ambulances are particularly helpful for transferring critically ill patients to a different city or country. ?

They’re used to transfer patients from remote areas that aren’t accessible via other modes of transport. Similarly, they’re used to move donor organs between hospitals.

While medical air transport has always been crucial in healthcare, it became even more important during the COVID-19 pandemic.

The Challenges of Traditional Air Ambulances

Any standard air ambulance service will equip their helicopters and flights with sophisticated medical equipment, such as IV pumps, heart monitors, external pacemakers, and portable incubators.

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Also, they recruit trained nurses, paramedics, and other healthcare workers to provide patients with quality onboard care. They're experienced in providing preliminary treatment, in the event of mid-air emergencies.

However, the novel coronavirus created a set of unique challenges for air ambulance services. To begin with, there's the issue of protecting the onboard medical staff and flight crew from the virus.

Also, there was an increased demand for international and domestic critical care air ambulance services. Severely ill COVID-19 patients often experience respiratory distress and could be in dire need of an oxygen supply. Also, they could need additional life-saving measures while being transferred from one medical facility to another.

That compelled medical air transport services to equip air ambulances with better onboard facilities.

Prioritizing Cleanliness

Hygiene protocols are crucial to any healthcare setting that deal with critically ill patients. However, regular cleaning materials and practices were proving to be futile during the pandemic.

It has prompted air ambulance services to look for stronger cleaning agents that can kill the novel coronavirus. Surface disinfectant cleaners, such as Dismozon, have become commonplace for sanitizing all the surfaces in an aircraft.

Many air ambulance providers are also using advanced disinfection systems, such as Aeroclave and Nocospray, to keep each aircraft squeaky clean.

Also, they're using non-porous materials to manufacture equipment bags and stretcher restraints. These materials can be easily wiped with disinfectant wipes to prevent contamination.

Specialized Equipment

From isolated neonatal units to non-invasive ventilators - air ambulances are equipped with advanced equipment to protect severely ill patients. These include:

- ECMO machines
- Blood gas analyzers
- Intensive care units
- Blood coolers and refrigerators
- IV fluid warmers

Additionally, air ambulances are using portable diagnostic equipment, such as point-of-contact ultrasound machines and ECG monitors. These devices can be used to monitor a patient's condition mid-air, and relay vital information to ground staff.

They're instrumental in diagnosing life-threatening conditions, such as heart attacks, strokes, and respiratory failure. Also, they can help the receiving hospitals prepare better to treat incoming patients.

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Receiving physicians get real-time updates about a patient's vitals, including O2 and CO2 levels, pulse rate, blood pressure, etc. Depending on the patient's condition, they can instruct onboard nurses and paramedics to administer lifesaving measures.

Moreover, medical staff on air ambulances have access to endotracheal tubes in-built cameras. These devices come in handy for intubating a patient if their health deteriorates mid-air.

Another cutting-edge piece of equipment that's being used to provide life support is a non-invasive ventilation helmet. The device eliminates the need for intubation, thus minimizing a patient's risk of morbidity. It's particularly useful for treating patients with acute respiratory distress syndrome (ARDS) caused by COVID-19.

COVID-19 Isolation Pods

When it comes to transporting COVID-19, even the most meticulous disinfection protocols can't eliminate the risk of exposure. That's why air ambulance services in the US and the world over have procured single-patient isolation units.

These portable isolation pods come with an in-built airflow system. That helps provide patients with a constant oxygen supply. Additionally, they can be hooked to existing life support devices available on an air ambulance.

That helps simplify the process of transferring COVID-19 patients without jeopardizing the safety of their family members, as well as medical staff and flight crew.

The Way Forward

The widespread use of cutting-edge medical equipment in air ambulances will go a long way to facilitate the transfer of severely ill patients over long distances. Effective use of diagnostic tools and life support devices will help the crew deal with any mid-air emergencies.

However, air ambulance services should work in close contact with suppliers of road vehicles, such as critical care cars and land ambulances. The equipment installed in these vehicles must be compatible with those in an air ambulance. It'll ensure the safe transportation of patients, all the way through the last mile.

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