

MED TECH

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OUTLOOK



Antigon



The annual listing of 10 companies that are at the forefront of providing In Vitro Diagnostic solutions and impacting the industry

Antigon

Guaranteeing the Utmost Safety in Blood Transfusion

Blood transfusions essentially deliver vital therapeutic aid in medicine, but conversely, are one of the most common high-risk procedures. The challenge that hospitals face today in the field of transfusion safety arises from the complexity of the manual system that is still being used to check for ABO compatibility at the patient bedside. While the first verification is carried out at the lab in the blood bank, a number of errors can potentially creep in at the bedside transfusion care unit. The reason being that not only do nurses not have time to dedicate to diagnostic tests at the bedside, but with significant nursing turnover in hospitals, they end up not well-trained enough to carry out this manual process, leading to possible human interpretation errors in ABO tests.

This visible gap between the patient, the transfusion bag ID check and the ABO blood group check caught the attention of Prof. Francis Corazza and Prof. Hanane El Kenz, who was then a PhD researcher at the Free University of Brussels. They promptly began developing a simple, automated error-free solution for ABO point-of-care-testing (POCT) at the bedside. This led to the birth of innovative MedTech startup Antigon, with Thierry Baltus joining the team as CEO. Through their combined efforts, the Antigon team brought forth ISABO™, a completely automated solution empowered with disruptive POCT technology for a combined double verification of ABO compatibility and patient ID at the bedside. "Our development really comes from clinicians for clinicians," says Baltus.

At the onset, the Antigon system double-checks patient information from the electronic ID of the patient and the blood bag. It simultaneously performs the ABO compatibility check by analyzing samples of blood from the patient and the blood bag. This not only enables a fast and intuitive experience for the transfusion staff but also encourages safety for both patients and healthcare institutions by eliminating bedside errors. All this information provides

additional traceability as the data linked to the transfusion process can be fed back into the blood bank through the hospital's laboratory information system. As the only solution that allows full tracking from the central lab of the hospital to the patient bedside, Antigon helps blood bank managers and healthcare institutions overcome the key challenges of safety, compliance and hemovigilance.

According to Baltus, there is no comparable solution today to what Antigon is proposing as, "ISABO™ is the only system combining both electronic ID checks and ABO biological testing, in an automated way." The unique system has been designed in terms of ergonomics to be used in daily practice by nurses and doctors in transfusion units at the bedside. Not only is the device completely safe and easy to set up, but ISABO™ is also further capable of managing a minimum of 10 patients simultaneously with associated blood bags. Antigon's device promotes the digitization of healthcare in the sense that transfusion data can become more easily trustable in time by patients and decentralized centers attached to a central blood bank.



Thierry Baltus

"The global vision for Antigon is to become the specialists in rapid IVD testing using POCT connected devices for safety improvement," says Baltus. With this vision in mind, the company intends to first establish their work within Europe and the UK, while planning to enter the USA and the Canadian market in the future.

After Antigon's opening chapter commencing with ISABO™'s compatibility testing, the company has gone ahead and submitted patents for other applications of the device. In addition to working on new applications for the Antigon system in immunohematology transfusion for hospitals, the company has its sights set on developing applications for sectors including the military and NGOs. "Antigon's applications playing a bigger role both within and outside the hospital will be the key to our future development," says Baltus. 