

Are you feeling the COVID-19 effect on blood availability?

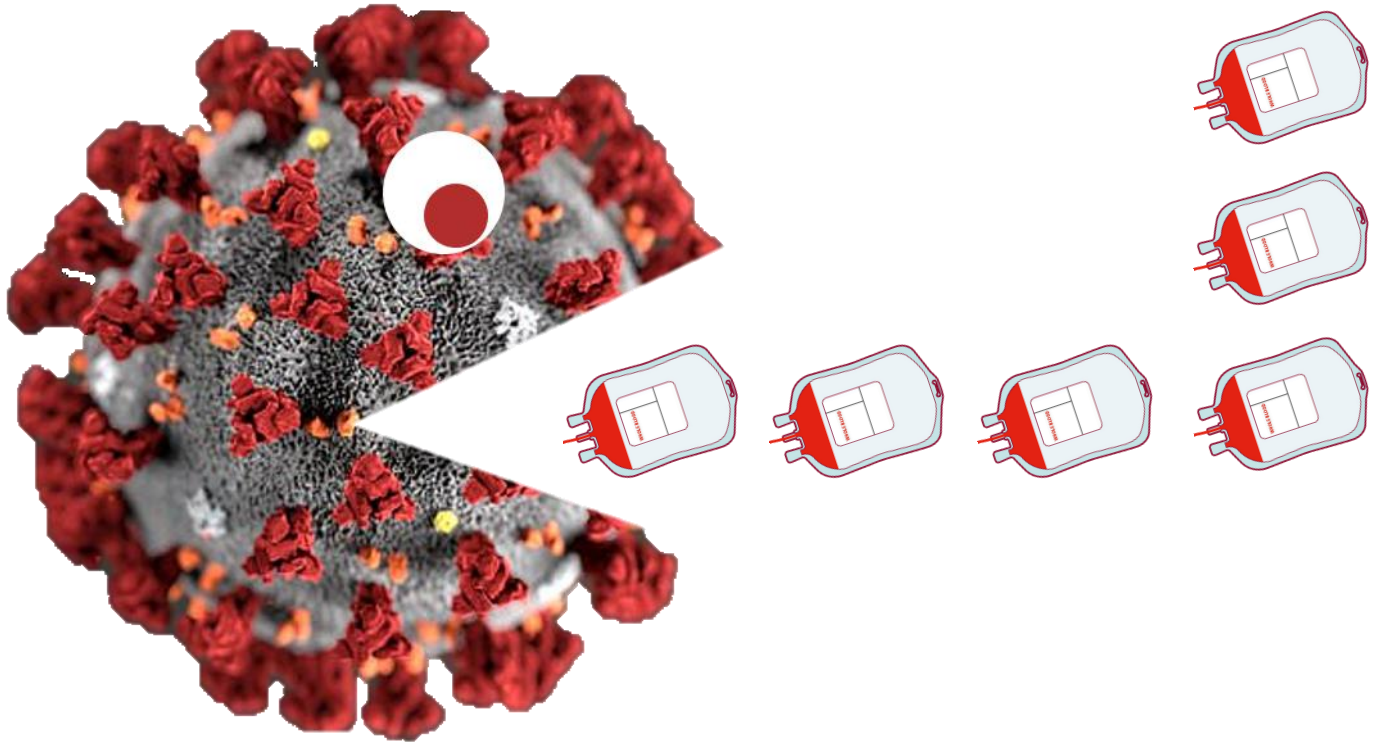
Would you like to know how new technology has helped several European hospitals to maximize their blood availability?

By doing that, they have relieved pressure on blood organizations and donors.

QTA

TRACER SYSTEM[®]

QUALITY - TRACEABILITY - ACCESSIBILITY



COVID-19 is eating in the world's blood availability

On February 12, 2020, Hong Kong Red Cross Blood Transfusion Service reported that COVID-19 had affected their blood availability, and blood banks are running low. It is problematic to collect even the minimum amount of blood needed due to the plunge in donors arriving to donations. [1]

March 6, 2020, Dr. Louis Katz refers to COVID-19 as "It's a threat to the blood supply. We'll lose donors that are afraid to come out in public." Dr. Louis Katz, is leading the response to the outbreak for AABB, a nonprofit transfusion medicine association. [2]

March 7, 2020, Los Angeles Times reports that "Blood donations have started to dwindle as cases of novel coronavirus continue to rise" [3]

Blood organizations around the world are planning for a worst-case scenario in their region, a significant corona outbreak. There is today no clear evidence that Coronaviruses can be transmitted through transfusion. However, blood donors will not be able to donate for 28 days if; returning from a Coronavirus risk area; has been in contact with Coronavirus infection; has recovered from coronavirus infection or possible infection [4]

Countries around the globe are experience drops in donors showing up at donation centers.

The problem will arise when an outbreak occurs in your area, like Hong Kong or Milan. So how could QTA Tracer System help to secure blood availability when inventory and donations might drop related to, as an example, a Coronavirus outbreak?

[1] <https://news.rthk.hk/rthk/en/component/k2/1508174-20200212.htm>

[2] <https://www.fiercebiotech.com/medtech/blood-drives-and-donors-fall-off-as-coronavirus-worries-grow>

[3] <https://www.latimes.com/california/story/2020-03-07/amid-coronavirus-concerns-officials-call-on-public-to-donate-blood>

[4] <https://www.transfusionguidelines.org/dsg/wb/guidelines/coronavirus-infection>



KNOCK KNOCK

....

Blood, a Perishable Inventory

Blood and blood components remain a scarce and precious resource. Patients in need of blood transfusion are still dependent on donations from the heroes and heroines, the donors. As a general and simplified description of the blood supply chain, blood availability, consists of the 1) Donors, 2) Blood Centers, 3) Hospitals, and 4) Patients. Wastage of blood at the hospital level will create a KNOCK-ON effect on the upstream supply. And vice versa, a shortage of supply, i.e., donors not coming to de donations, will create a KNOCK-ON effect on the hospitals. [1]

Wasting blood units in the hospital has wider consequences and a knock-on effect on the upstream supply chain, as this unit of blood must be replaced and could have been used for transfusion. The supply chain relies on voluntary donors, and hence every wasted unit of blood in hospitals is also a waste of donors' time and effort in giving blood. The extent of hospital demand and wastage, therefore, impacts on donor recruitment upstream in the supply chain. [1]

So what might happen when, as an example, your region is experiencing a COVID-19 outbreak? Well, the first thing the upstream supply will ask the hospitals is to be very cautious and restrictive using blood, especially certain blood groups. The upstream supply will try to create larger inventories and ask you to stock blood. Minimizing wastage will become crucial.



[1] What drives perishable inventory management performance? Lessons learnt from the UK blood supply chain. Sebastian H.W. Stanger, Richard Wilding and Nicky Yates, Sue Cotton

Reduced wastage increases blood availability



Cruces University Hospital, Bilbao

Has reduced their wastage by 90% since their QTA implementation in 2016. Primarily, blood sent to surgery that now is monitored and saved. QTA Tracer Systems AI gives them a decision whether the product is OK or not. The system is so simple that it was the hospital's porter who could give the happy message to the responsible manager of the first 2 blood bags saved instead of being discarded. The net financial savings today are just over €100,000 a year, compared to before the artificial intelligence of QTA Tracer System was implemented. More important is that over 500 RBCs are saved every year

University Hospital Southampton

NHS Foundation Trust

Southampton General Hospital are using QTA Tracer System for the pre-hospital blood handled by Hampshire and IOW Air Ambulance. Compared to previous 3 simpler and cheaper data loggers used, they have managed to reduce their wastage by 60% in this process, which generates an annual saving greater than £16,000. But above all, they now save 140 units of O-negative RBCs. They are currently validating other processes where QTA can help them with additional profits

North Bristol NHS Trust

Southmead Hospital, Bristol, uses QTA for their Major Hemorrhage Protocol within the hospital. The first year's savings are forecasted to £21,00 (based on one quarter), i.e. about 170 O-negative RBC units that do not need to be discarded.



HOW OUR ARTIFICIAL INTELLIGENCE WORKS



QTA Tracer System, a classified Medical Device 2a product, measures temperature and calculates shelf-life in real-time according to customizable configurations. Information is stored and readily available for at any time, anywhere in our cloud service, the QTA Web Portal.

The powerful QTA Tracer is completely autonomous; after the start, the integrity/stability of the product can be visually controlled at any time, by anyone. The green light means the product is OK and red light the opposite.

For the user, it is so easy to start the process. Select the specific configuration (product), scan the product's barcode/barcodes, scan the QTA Tracer, apply the Tracer to the product and let it do the rest, makes sure you comply with the regulations.



QTA Tracer System communicates with Bluetooth; this allows anyone to become part of the logistics process. Apps (free of charge) for Android and Apple devices automatically transfer data from QTA Tracer to QTA Web Portal. In addition to product information, geographical traceability is also obtained.



AI PRODUCT THAT ALARMS YOU BEFORE IT IS TO LATE



With the help of a network of QTA nodes (mobiles, tablets, PCs), data is automatically uploaded to your cloud-based QTA Web Portal. For example, you can get real-time information from your carrier, or how the blood is handled at the surgery department etc.

Thus, the system can alert you on any deviations even before the product expires.

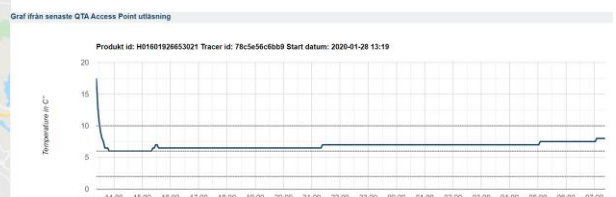
Blood bag logs

Donation identification no: Advanced search

Donation identification no	Start date	Product description	Blood group	Product code	Configuration	Last status
S0012100000502	2020-01-26 07:48		2800, AB RHD negative	E3846V00	View	● Product valid
S0012100000502	2020-01-26 07:47		2800, AB RHD negative	E3846V00	View	● Product valid
S0012100000502	2019-12-26 11:03		2800, AB RHD negative	E3846V00	View	● Product not valid
S0012100000602	2020-02-19 08:24				View	● Waiting for shelf life calculation
S0012100000502	2020-02-05 17:00		2800, AB RHD negative	E3846V00	View	● Product not valid
StickyTracer	2019-06-06 10:39	Ontop of the blood bag			View	● Product not valid
UCHW	2020-02-05 16:09	Coventry			View	● Product valid
S0012100000502	2020-01-26 07:49		2800, AB RHD negative	E3846V00	View	● Product valid
test	2020-01-28 12:56	test			View	● Product valid
S0012100000502	2019-12-26 11:04		2800, AB RHD negative	E3846V00	View	● Product valid

Via the QTA Web Portal, managers can view comprehensive and detailed information about monitored products from their office, on their way to/from an office, or in any other location.

Traceable notes are easily created and stored.



START SECURING BLOOD AVAILABILITY!



- This is the only thing you need to start saving blood,
- **We have it ready to ship**

- All Setup and Training activities can be done remotely and you will have your web portal ready to use.

The QTA Tracer System blood saving kit

- 1, PC with QTA Access Point
- 1, 2D Hand scanner
- 1, QTA USB Bluetooth Dongle
- 25, QTA Tracers



This kit will allow you to quality protect 2500 plus blood bags per year. If you require more QTA Tracers we have no problem extending the kit with the additional QTA Tracers.

Tridentify follows, and acts, according to what governments agencies recommends.

The kit above allows us to provide you our state of the art QTA Tracer System without travels and hence, maximizing use of your blood.

Contact: johan.snis@tridentify.se

+46 70-511 18 03