

What experts think about us?

Luxembourgish Red Cross, Luxembourg

B | medical systems



Through these short conversations, we try to understand what our customers think about us. Today we are going to Luxembourg, to discuss with M. Nicolas Malvaux, Pharmacist in charge of Production, about his activities at the **Luxembourgish Red Cross**. The Luxembourg Red Cross is a non-governmental organization that contributes to saving human lives or improving living conditions of sick and injured people in the country and abroad. The Luxembourgish Red Cross is a key player in the blood collection and processing. The organization is using our blood management solutions to handle haematological components they receive.

A. Could you explain what your activity consists of? I have been working with the Luxembourgish Red Cross since 2003. I am the pharmacist in charge of the production, i.e. the preparation of labile blood products for the entire Grand Duchy of Luxembourg. I oversee the transformation of blood donations into different blood products: red blood cells concentrates, as well as plasma and platelet products. I follow the process daily and make sure that everything is going well. Moreover, I set up new preparation and modification processes and supervise them while also being responsible for other activities related to measuring the integrity of the instruments we use, in particular the one we cannot use without having verified that it meets the criteria for which it was purchased.

I am also in charge of all the plasma management. While part of it is used to manufacture medicines, the other is treated and sent back to Luxembourg to be used in transfusions. Furthermore, I am the contact point for the different stakeholders.

B. Why is there a need of blood storage solutions in your business? We use many different storage products at the Red Cross. Blood products are biological substances that are very sensitive and cannot be stored in conventional/domestic refrigerators. In particular, the red blood cell concentrates must always be stored between 2°C and 6°C. This is a very small temperature range compared to drugs which generally require a refrigeration temperature ranging between 2°C and 8°C. The storage temperature is therefore extremely important for us and the reason why we require specialized equipment: in the case of a domestic fridge, we can have a very large temperature gap between the bottom shelf and the top one. In addition, the fridges must have particularities in terms of vibrations. If you have a household refrigerator, when the generator starts up, for example, there are vibrations that can cause haemolysis (the degradation of red blood cells), so we really need delicate equipment adapted to the storage of red blood cells.

We are the only organization in Luxembourg in charge of the collection, preparation, and distribution of blood products, which means that if our products are poorly stored, we will be obliged to throw them away and we will no longer be able to supply the hospitals. So this means that we have a mission of national importance to carry out.

Hence, we are looking for cooling equipment that can provide a homogeneous and stable temperature in the cabinet, therefore avoiding significant variations in temperatures. We only use professional products that have been proven and validated to achieve our goal.

For the blood plasma, the freezing process is extremely important. If it takes a long time to reach -30°C, the proteins and coagulation factors that we use to create medicines will degrade. It is very important to have an extremely fast and efficient process. This is the reason why we use fast freezers for the rapid freezing of blood plasma, and we don't store the plasma in domestic freezers which would put our samples at risk.

Speaking of freezers, we also have those as long-term storage solutions for the -30°C temperature range, but it is also important that they avoid big temperature variations during door openings. Therefore, we require efficient storage freezers that can maintain the right temperature in all circumstances, especially in the case of a breakdown.

We also must store platelets, which are a product that needs to be kept at 20-24°C. It is extremely important to keep the temperature in this range to avoid problems with the function of the platelets in terms of coagulation, activation and to avoid the proliferation of bacteria.

As you can see, temperature is a criterion that we must consider at each step of the process.

C. Which products did you buy from B Medical Systems? For which purpose? For the rapid freezing of plasma, we have some MBF21 models and the CSF61. We also have some blood bank refrigerators, and some older BR750GG models for the storage of blood. Last year, we bought the F701 plasma storage freezers with which we are very happy. They are extremely efficient, especially when considering that upright usually struggle to maintain a stable temperature during door openings. This is not the case with these models.



Plasma
Storage
Freezer

F 701

We also have transport boxes from B Medical Systems for long term transports: for example, they are used to move the blood products we sometimes have to go and get during shortages, or when we need to import pharmaceutical products. We have the MT4 model.



Medical Transport Box

MT 4

D. What are the features that you liked the most? Could you please talk about the performances of the devices? We do our own temperature mapping regularly and when we receive a new blood bank equipment. We have a qualification program for such equipment and what we see is that if the devices are pre-parameterized, we don't have to play with their settings and, as they are medical devices, they can be employed immediately after our own qualification. We see in the performance results of B Medical Systems' products that regarding the stability and temperature homogeneity there are no issues at all, as we are always within the ranges. For this reason, all the equipment we have acquired from the company is accepted. We do the same thing for plasma freezers, although it is more challenging as it is checked by our audits (pharma, MOH) every year as rapid plasma freezing is one of the most critical step in the process for the good quality of the raw material. We must have equipment that go down in temperature very quickly and that have good productivity. What I appreciate about B Medical Systems' contact shock freezers is indeed the fast temperature descent and the blood bag capacity of the model. We have been able to successfully respect the required freezing times and for the optimal preservation of the samples.

For the blood banks refrigerators, I appreciate their homogeneity and stability when it comes to the temperatures offered. These are devices that do not fail over time and in addition can be connected to our monitoring system.

In conclusion, the B Medical Systems' products are reliable, have a high performance and we can count on the robustness of the equipment to last over time.

E. How are you using the B Medical Systems' product and how does it benefit your institution? They help guarantee the quality of the final products and their safety. If a red blood cell concentrate is stored incorrectly, for example, there may be a risk of haemolysis (degradation of the product) and this may cause serious problems for the recipient. B Medical Systems' devices help guarantee the quality of our products (e.g. samples with enough proteins to make medicine).

F. Have you found B Medical Systems to be a trustworthy partner? Yes, what is important is the quality of the manufactured products, the after-sales service, and the interactions with the company. We are never safe from a breakdown, so it is also important to have a support service that can quickly help us. It is important to buy a product that is compliant with regulations, reliable and of a company that if you face a problem, you can count on it. It is important for us that the manufacturer understands our problems and the applications for our own products. It's more than a business relationship, it is an exchange.

G. How did you learn about B Medical Systems? Luc Provost came to visit us in 2003 and introduced us to the only company in Luxembourg which manufactures medical cold chain equipment. We are happy to have a local partner here as there aren't many manufacturers in the nearby regions. For us it is important to have this proximity. The relationship however has been built up over time.

H. How long have you been a B Medical Systems' customer? Since 2005.

I. Are you satisfied with the equipment? Yes, very satisfied. We have fridges that are over 15 years old that are still working perfectly.

J. Would you recommend B Medical Systems? Yes, it is a supplier to consider when choosing medical equipment. B Medical Systems has a wide range of products, so yes, I would recommend them. Having a dedicated transfusion segment is really good.

