



Customer Story - Transfusion Medicine Department Kokilaben Dhirubhai Ambani Hospital & Medical Research Centre

Kokilaben Dhirubhai Ambani Hospital & Medical Research Centre is one of the largest blood banks in Mumbai with an average of 1,000 donors per month. The donors are both patient related and unrelated voluntary donors in hospital setting as well as voluntary donors in donation camps outside. About 85% are male and 15% female. The majority (70%) of the donors are 20-40 years old. Today, the center screens their donors with HemoCue, a digital hemoglobinometer.

Choosing quality and quantitative results for donor safety

Dr. Rajesh B. Sawant, is Head of the Transfusion Medicine and has more than 17 years of experience. Several years ago, the Kokilaben blood bank decided to change screening method from copper sulphate (CuSO_4) to a modern point-of-care (POC) technology.

Dr Sawant explains, "The CuSO_4 method is associated with a number of drawbacks, e.g. lack of quantitative results, subjective end-points, temperature sensitivity and evaporation of solution. I was concerned about the lack of standardization and quality control for the method established. For me, donor safety

"Actually, there were not many other options. HemoCue was the only option for us."

Even if there are other photometers on the market, we found that the quality of HemoCue was always better than other available alternatives.

was of high priority and I also wanted to overcome the issues we experienced with high variation in deferral rates. Not to mention the working situation for my team members. The technicians had to prepare stock solutions every day and then we also had the biohazardous waste to consider".

"Daily, we had occasions where a donor could have been tested at two different locations and received conflicting results. This didn't really improve their impression of the whole screening process"

The only option with quality in mind

Dr Sawant wanted a proven, safe, fast and reliable point-of-care testing (POCT) method. Key criteria for selecting a reliable POCT system was repeatability of results, objective reading, ease to operate and high quality results. The HemoCue system provides him and his team with fast and reliable results, accuracy, ease of use and safer disposals.

The donors also feel more confident when they can see their actual hemoglobin (Hb) values on the HemoCue display. It is actual figures and not only a yes or no.

With quantified numeric results the technicians and medical staff can take confident decisions without risk for observer bias. The counselling service to the donors have also been extended with recommendations of nutrition improvements or further investigations if Hb values are out of range.

Benefits of retesting deferred donors

“Low donor Hb is the most common reason for deferral of blood donors. Preventing unnecessary donor deferrals due to inaccurate Hb results is essential for recruitment and retention of eligible donors”, Dr Sawant explains.

To compare performance of the HemoCue method and CuSO₄, Dr Sawant performed a study on 3,210 blood donors deferred with the CuSO₄ method. Dr Sawant investigated if retesting deferred donors with the HemoCue method would help lower deferral rates. With this retesting policy, approximately 27% of the deferred donors could be accepted back for blood donation. He also found that the sensitivity, specificity, PPV and NPV of the HemoCue method was far better than the CuSO₄ method with both capillary and venous samples.

Abstract reference: R B Sawant et al. Evaluation of a policy for retesting the deferred donors hemoglobin: A pilot study. P-092. Vox Sanguinis (2017) 112 (Suppl. 1), 5–295.

Poster reference: R B Sawant et al. Evaluation of a policy for retesting the deferred donors hemoglobin: A pilot study. P-092, Poster at the 27th regional Congress of the ISBT, Copenhagen June 17-21, 2017.

INFO ABOUT THE CUSTOMER

Dr Rajesh B. Sawant (Consultant, Dept. Transfusion Medicine) at Kokilaben Dhirubhai Ambani Hospital & Medical Research Centre, Mumbai, India. Dr Sawants primary areas of expertise involve e.g apheresis and therapeutic apheresis techniques.



Dr Sawant explains, “Considering the vast amount of donations needed in India, every unnecessary deferral of donors should be avoided. One has to remember that even a small percentage of false acceptance or deferrals represent a large number of individuals.”

Dr Sawant continues, “For cost constrained centers implementing the retesting policy using HemoCue method can improve the total number of eligible donors. Furthermore, studies on deferred donors indicate that previously deferred donors are less willing to return. We must also take other dimensions in consideration, e.g. costs for marketing activities to regain donors and loss of credibility”.

Positive impact on donor screening

Dr Sawant concludes that the overall benefit of using a quality controlled, safe and accurate system has been an increase in the number of accepted donors, decrease in false deferral rates, and also an increase in the long term donor pool. The HemoCue system is a ready-to-use POC system which saves manpower and time. It has definitely had a positive impact on the donor screening process in the Kokilaben blood bank where today all donors are tested with the HemoCue system.