**"** We have moved into an exciting era of electronic or computer crossmatch. **"**



# SANBS
## South African National Blood Service

**Your Blood Saves Lives**

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# Electronic Crossmatch (EXM)

## What is Electronic crossmatch?

We have moved into an exciting era of electronic or computer crossmatch. The issuing of blood without full crossmatching and using a computer interface to assign a unit of blood to the patient. A blood sample is drawn only to confirm the blood group and antibody screen.



## Why EXM?

- Improved turnaround times (TAT)
- Small volume blood sample for testing
- Reduced human error (automated testing platform) – improved blood safety
- Improved efficiency

To introduce SMART FRIDGES in future: Blood vending machines placed at hospitals and interfaced with SANBS IT system.

EXM is done; doctor receives confirmation and code to collect blood from smart fridge (blood vending machine)

## When can we not perform EXM?

High-risk groups are excluded:

- All patients with positive antibody screen and history of clinical antibodies
- Inconclusive ABO and RH grouping
- Emergency un-crossmatched blood
- Patients younger than 1 year
- Patients who had incompatible haemopoietic stem cell transplant; had incompatible organ transplant
- Patients with Sickle Cell Anaemia
- Patients having Bypass surgery

## What is required to perform EXM?

- Current sample
- Patient identification
- Historic data
- Clinical information or diagnosis.
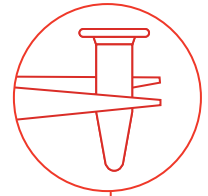
## How is EXM being monitored?

- Turnaround Times (TAT)
- Adverse events or transfusion reaction reported by Haemovigilance team

## Future steps?

1. Doctors blood request via an app
2. EXM done
3. Confirmation and access code sent to the requesting doctor
4. Collection of blood from smart fridges (operating like a vending machine) using the code