

**INNO  
VATIV E  
SOLU  
TION**

**transforming the  
blood banking  
world**

PANACEA



A COMPANY WITH A MISSION  
TO **TRANSFORM** THE  
BLOOD BANKING WORLD  
WITH **INNOVATIVE SOLUTIONS**  
ENABLING DELIVERY OF  
**SAFE BLOOD**  
INDEPENDENT OF THE  
**HUMAN DEVELOPMENT INDEX**

**TABLE OF  
CONTENTS**

**01**

**OUR  
PHILOSOPHY**

**03**  
**DISTINCTIVE  
FEATURES**

**LICENSING  
SOLUTION**

**05**

**PANACEA  
STRUCTURE**

**07**

**PANACEA  
COMPLIANCE**

**15**

**17**

**HARDWARE  
REQUIREMENTS**

**19**

**TRAINING  
SOLUTION**

**21**

**PANACEA  
EXTENSIONS**

**23**

**ACCEPTANCE  
TESTING**

# OUR PHILOSOPHY



PANACEA is a  
Blood Banking  
Expert System  
designed with a  
compulsive  
philosophy

## DELIVER QUALITY EN MASSE

**PANACEA** is a Blood Banking Management Information System, designed with a compulsive philosophy to ensure compliance to blood banking standards. It has a blood banking rules based engine that emulates the decision-making ability of an expert blood banker, reducing errors to near zero.

Conceived and designed by blood bankers, who were cognizant of the formidable challenge of “human errors” in blood banking. The solution

minimizes errors to negligible levels, without compromising high throughput. Blood banking logic has been embedded into the critical control points enabling PANACEA to identify violations in real time. It blocks the functioning and generates alerts, thereby converting an impending event into a mis-event.

Hence PANACEA ensures adherence to the blood banking rules, providing ultimate safety with productivity, delivering quality en masse.

# DESTINCTIVE FEATURES

## SECTION 02

### THE “REAL” PAPERLESS SOLUTION FROM VEIN TO VEIN

- ◆ Single solution for national transfusion services, blood centers, donor centers and hospital blood banks.
- ◆ Central data transfer enabling data aggregation from blood centers to regional and national headquarters.
- ◆ Embedded blood banking rules prevent deviation from processes, making regulatory compliance easier.
- ◆ Unique realtime error trapping process converting imminent events into mis-events.
- ◆ Identical electronic solution for donor selection and draw in fixed sites as well as mobile drives.
- ◆ Offline paperless backup for donor selection and draw maintaining integrity of your data.
- ◆ Universal accessibility enabling you to effectively manage your team wherever you are.
- ◆ Optimum flexibility for your institution through dynamic customization of setups by master admin.
- ◆ Open system, does not tie you into specific hardware.

# LICENSING SOLUTION

SECTION

03



LICENSING

## SINGLE SITE LICENSE PROVIDES

- ◇ Unlimited users.
- ◇ Unlimited workstations.
- ◇ Connectivity with unlimited blood banks.
- ◇ Online User Manual.
- ◇ Real-time, case based e-Training solution tailored to your institutional configuration.
- ◇ Free lifetime PANACEA V1 upgrades.
- ◇ Free 24/7 Online support for one year.
- ◇ One time purchase or rental model.
- ◇ Providing freedom from the fineprint costs of traditional licensing contracts.

# PANACEA STRUCTURE

## SECTION 04



Root cause analysis of all possible “Human Errors” in blood banking enabled meticulous implementation of “Preventative Steps” in the structure of Panacea. These embedded in a modular design, wrapped into a simple intuitive flow, makes PANACEA your “virtual blood banking expert”, constantly guiding each blood banker, in compliance of all regulations. Eliminating the lapses in the “error-prone” repetitive activities of the blood banking world. The quality of each unit is guaranteed, enabling universal accessibility to quality blood, each time, every time, everywhere.

**FROM AUSTRIA  
TO ZAIRE**

**PERFORMANCE  
ASSURED**

## Donor Selection



Designed to ease a memory intensive process enhancing the efficiency of your staff

- Detailed registration and interview
- Does not allow previously deferred donor to be drawn
- Automatic recall of previous demographic records, saving time
- 4 in 1 solution employing touch screen tablet technology enabling:
  - Questionnaire with a decision tree of sub-questions
  - Donor Photograph for positive ID
  - Electronic Consent Signature
  - Barcode scanning of Donation Identification Number
- Dynamic Customization:
  - Questionnaire with drug and vaccine lists, physical exam, donor eligibility period and age.
  - Type of bag used, volume of bag for draw and draw duration.

## Donor Draw



Hands free environment for your Phlebotomists using smart phone

- Retrieval of donor photograph enabling “Positive Identification”
- Rigorous donor draw record for: Phlebotomist, bag type, bag volume, draw duration, date and time stamp.
- Automatic verification of volume and draw duration
- Tagging of unit for “Product not allowed” and “discard unit” with notifications

## Bonding



Enhance your links through customized SMSs and emails to your donors and corporate partners

- Post donation “Thank You” SMS
- Email of infectious disease results
- Acknowledgement to donor on issue of each blood product
- Birthday wishes, holiday greetings and many more

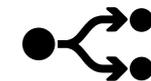
## Receiving



Designed to maximize your efficiency

- Units from blood drives and donor centers, with container and cold chain traceability
- Donor samples for apheresis and pre-draw infectious disease testing
- Blood products at hospital blood banks via Online Blood Ordering System
- Patient samples

## Component Management



Efficiently manage your production consistent with standards and timelines

- Real time cross check of component expiry against draw date
- Prevent pasting of incorrect expiry label
- FFP production not allowed beyond preparation timelines
- Facility to prepare “Plasma Frozen within 24 hours (PF24)”
- Ensures “platelet resting time”
- Register “Thawed Plasma” in system with 24 hour expiry
- Provision of modification, division and apheresis products

## Serology



Fulfills all your Immunohematology and regulatory requirements

- Interfacing with Automated Immunohematology Analyzers
- Electronic Crossmatch
- Manual Testing for:
  - Routine Serology
  - Serologic Problem Solving
- Case Review by Supervisors and Haematologists
- Keep track of patient sample date, received by and sample expiry
- Potential errors prevented by cross checks against previous testing
- Physical and functional quality control of reagents
- Auto verification of QC results according to institutional setup
- Maintain records of QC failure and corrective actions

## Infectious Disease Screening



Achieve error free large volume throughput by interfacing and auto interpretation of results

- Compatible with both standards of interfacing:
  - ASTM E 1381-91
  - ASTM E 1394-91
- Manual Assays
- Option of Sequential / Non Sequential Infectious Disease Screening

## Print Module



Versatile self contained print module for all your printing needs

- ISBT 128 compatible label printing
- Mass printing of donor infectious disease reports
- Bulk printing of donor appreciation certificates on a single touch
- Unit compatibility testing report printing
- In-house manufactured reagent label printing
- Setup facility to cater for all your label requirements

## e-Unit Verification



3 scans, 20+ checks ensure safest possible inventory without compromising high throughput

Checks Include but not limited to:

- Correct name of donor tagged with DIN
- Blood Group with reconfirmation performed on specific DIN
- Correct blood group label is applied
- All infectious disease testing results are non-reactive
- Correct product is prepared
- Product is not expired
- Product is not hemolysed
- Product is not Lipemic
- No air bubbles found in the product
- No clots and fibrin found in the product
- No discoloration found in the product
- No leakage found in the bag
- FFP unit is not damaged
- No platelet clumps found in platelet unit
- No red cell contamination is found in product
- Date of expiry of modified product is calculated from modification time as per services setup

## Inventory Management



View all your component details on a single screen

- Product quarantine
- Issuable stock with expiry status
- Allotted units
- Unit return
- Units pending verification
- Units in process
- Total demand
- Inventory reconciliation

## Unit Issue



Deliver the right blood to the right patient by 2 scans performing 10+ cross checks

Checks include but not limited to:

- Unit cross matched with correct patient
- Sample draw date and expiry
- Compatibility testing completed
- Identical / compatible product issued
- Product has not expired
- Standard physical checks of the unit

## Online Blood Ordering System



“MyCart” for your hospital blood bank clients

- Wide range of order types:
  - Random single
  - Regular standing
  - Emergency orders
- Order “Track and Trace” System
- Receive and return products
- Repertoire of Administrative Reports
- Billing history viewable by clients

## Order Management



Setup based process, integrating client blood banks with centralised blood center

Comprehensive modules dealing with:

- Online Blood Ordering System
- Distribution
- Automated Billing
- Client Management
- Setups

## Billing



Designed to make your processes fast and efficient

- Setup based invoice generation for predefined billing cycles
- Automated invoice generation
- Layered invoicing from order summary to unit details
- Customizable master price list setup
- Customizable charges setup, based on master price list
- Delay alerts to user defined hierarchy for invoice generation and payments

## Permanent Donor Registry



Filtering your reliable donors. Make your loyal donors feel important and special

- Prioritisation based on regularity and frequency of donations
- Facilitate personalized donation cycles
- Loyalty card printing facility
- Scheduling donation appointments
- Lifetime donor profile update on each donation
- Comprehensive search with phenotype

## Alerts and Notification



PANACEA warns users, blocks functioning and informs admin as a mis-event occurs

- Over 40 alerts, spanning the complete process including but not limited to:
- Preparation of “not allowed” products
  - Incorrect expiry label pasted
  - Blood group discrepancy on reconfirmation
  - Pasting of wrong blood group label
  - Patient sample discrepancy
  - Incorrect blood group interpretation
  - Allotment of discarded product

## Setups



Providing flexibility to implement your institutional blood banking policies

- Selection Questionnaire
- Product Preparation Timelines
- Serology QC Panel
- Services Setup
- Client Setup
- And more...

## Quality Assurance



Total control of quality assurance across the complete spectrum of activities

- Customized Serology QA Panels
- HR Productivity and Efficiency Reports
- Incidence Documenting and Tracking
- Scheduling of Customized Quality Audits
- Online SOP's with e-reminders for scheduled review

# COMPLIANCE

SECTION

05

ISBT 128 | HL7 |

AES

PANACEA



# AES

encryption

## Adherence to Industry Standards

- ◆ ISBT 128 Bar Code Labelling System
- ◆ Blood banking standards
- ◆ Integration with your HMIS via HL7 and JSON plugins
- ◆ Most trusted and widely used data encryption protocols

# HARDWARE REQUIREMENTS

SECTION

06

## **Servers**

Hybrid configuration:  
Cloud as well as On-Premises

OS supported on Servers:  
Linux, Windows and MAC

## **Hardware**

Designed for touch screen devices, but equally  
functional on your standard PC's

Bar code scanners and bar code label printers

# TRAINING SOLUTIONS



## COMPREHENSIVE SELF LEARNING e-SOLUTIONS FREEING UP VALUABLE RESOURCES

- ◇ e-User manual,
- ◇ e-Training videos
- ◇ Real time case scenarios
- ◇ Self competency assessments

# PANACEA Extensions - Enabling Vein to Vein Safety

## Providing the ultimate in “Haemovigilance”

<b>Narro:</b> Patient Registration	<b>Certus:</b> Wrist Band Printing	<b>Ordo:</b> Test Ordering	<b>Confio:</b> Sample Collection, Bedside Label Printing	<b>Vitalia:</b> Transfusion Management
Dynamic Customization for your organizational policies, with positive photo identification.	Enables positive patient identification every time, every where, with unique MR number and barcode for ultimate safety.	Simplify blood product ordering and testing from customisable predefined list.	The right sample , the right patient, the right labeling, using smart devices at the bedside. Eliminating all chances of patient sample mix-up.	Transfuse the right patient with the right blood, at the right time, with transfusion vitals and reaction reporting.

## VALIDATION AND USER ACCEPTANCE TESTING



“ PANACEA functionalities verified by over 10,000 test cases. Fully functional at well established regional blood centers and hospital blood banks ”



Z A A V I A

[www.panacea.zaavia.net](http://www.panacea.zaavia.net)  
[www.bloodbanking.zaavia.net](http://www.bloodbanking.zaavia.net)