## V I R T U S

#### INFORMATICS



#### The need is the beginning of the story

Patients admitted to a critical care area typically are very ill and require frequent assessments by nurses, physicians and other health professionals. They receive numerous medications and undergo frequent blood testing. This high volume of data needs to be documented accurately and efficiently in the patient record. As a result, there are typically numerous different paper forms with several thousands of data elements in the critical care units. Nurses and physicians need to make quick decisions and have information available at their fingertips.

#### About the Module

It is a Comprehensive stand-alone solution for bedside automation of ICU patient documentation and workflow. It organizes high-volume device data, lab results, calculations, orders, medications and clinical documentation for physicians, nurses and other members of the multidisciplinary team. It supports all types of critical care environments including neonatal, pediatric and adult intensive care units. Capabilities include, Flowsheet Automation, Fluid Management / Fluid Balance Calculation, Advanced Scores, Automated Workflow, Care Protocols / Reminders, Assessments etc.

This automated solution organizes high-volume device data, lab results, calculations, orders medications and

clinical documentation for physicians, nurses and other members of the multidisciplinary team. Critical Care Manager enables seamless information sharing across the continuum of care to everyone on the clinical team. This is essential for supporting efficient workflow and immediate access to reliable patient information where it is needed most — at the bedside.

The automation of clinical documentation, for all types of critical care environments including neonatal, pediatric and adult intensive care units, enables physicians, nurses and therapists to view complex and diverse data in a single application.

### **Module Highlights**

- 01 Connectivity to medical devices and intravenous pumps
- 02 Standard and configurable case templates
- 03 Intuitive ICU documentation
- 04 Advanced fluid management
- 05 Shared data across the perioperative suite and into the ICU
- 06 Proactive tracking and reporting of care compliance
- 07 Audit trail and high-level security
- 08 Clinical Context Object Workgroup based (CCOW)
- 09 Standard operational reports and quality reporting
- 10 Remote access to clinical record



#### **Key Features**

- Critical Care manager cater to all the clinical documentation requirements for the Intensive Care Units ICU, PICU, NICU
- The system is a comprehensive solution for bedside automation of ICU patient documentation and workflow.
- Integrated remote access application enabled for full access to high resolution patient data collected at the ICU bed side.
- Provides intensivists with web-native remote access to key ICU data that helps support informed clinical decisions, including colour highlighted and low thresholds that are clinician configurable by age group.
- The demographics module document basic information about the patient and the encounter in a series of specialized forms.
- Patient identification data like name, age, gender, address, ethnicity, phone number, emergency contacts etc. are captured.
- Critical medical data are captured like patient home medication, allergies and precautions.
- Patient health details like blood type, BMI,BSA, weight, ambulatory status at the admission time are captured. A patient information band displaying patient's vital information is provided.
- A miniature care beacon next to a name indicates the current status of documentation on that patient's chart.
- A standard flow sheet contains 4 basic data types:physiological variables, medications, fluids and laboratory data.
- Custom flowsheets are available like laboratory and diagnostic testing, assessments, scores, nursing care and respiratory.

#### **Benefits**

Picis Clinical Solutions provides clinicians with one contiguous record that spans the ICU, the operating room (OR) and the post anesthesia care unit (PACU), making the flow of information seamless and ensuring that a patient's progress is automatically tracked and documented from one high-acuity area to another.

This online record can be easily reviewed at the patient's bedside or from any remote location. With such powerful capabilities, clinicians have the flexibility to

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# PICIS CLINICAL SOLUTIONS

• A time bar is provided at top of all flow sheets that show time and dates.

- Memos are provided on the flowsheet items like time column, data in flowsheet, order labels and physiological variable labels.
- Graphical grid showing trends of patient parameters like physiologic variables, medications, fluid intake and output, and laboratory results.



review patient care data and make decisions based upon the complete picture.

These data-driven decisions can help clinicians improve care and dramatically reduce costs. Continuity of clinical documentation saves time and reduces the risk of communication errors when transferring patients between care areas or clinicians. It supports quality assurance efforts, since the impact of an event in the OR and PACU can often be seen as an outcome in the ICU.



Picis is a global provider of clinical information solutions that automate the entire perioperative experience with one continuous patient record, from preop to anesthesia through PACU. Picis continues to focus and specialize the integrated suite of solutions in life-critical areas of the hospital where the patients are the most vulnerable, the care process is the most complex, and an increasing majority of hospital costs and potential revenue are concentrated. The software enables rapid, sustained delivery of clinical documentation, and financial and operational results. From department performance to patient case costing, hospitals benefit from the ability to interact with the data needed to help clinicians improve patient care, engagement and hospital revenue goals. Picis Clinical Solutions, a wholly owned subsidiary of N. Harris Computer Corporation, is headquartered in Wakefield, Massachusetts with licensed systems for use at more than 400 hospitals worldwide.

### System Capabilities | Critical Care

A Patient Summary window is provided that displays reports that combine selected data with notes entered by caregivers. These reports are to serve as documentation for shift changes, patient rounds and other situations where quick overview of patient progress over a specific period.

Timers are provided in the patient chart that could include up to 10 stopwatches for timing procedures such as cardiopulmonary bypass.

Users are able to preview, print and save hospital-defined reports, which could also be used as a hospital discharge summary.

All information in a patient's chart are to be available for view and printed after the patient has been discharged.

The medication system facilitates users to update clinical database using medication dosage, form, administration schedule and route.

Medication summary window shows all medications that have been documented, including those administered as drips.

Doses are shown in columns with the date and time at the top.

Scheduled doses for intermittent infusions are indicated with an initial red cell followed by pink cells to cover the duration of each dose on the flowsheet.

Fluid flow sheet contains fluid name along with the administration details such as volume, medication dosage, concentration, pump rate, administration schedule and infusion site.

Any fluid component in a medication order are shown on the fluids flowsheet

Automatically calculates total intake and output for fluids documented on flowsheets and display the results graphically in the fluid balance window. Total volumes for all fluids are shown in the same window.

User shall have facility to view data for any of the available shifts, days, weeks, or encounters of the currently admitted patients in the form of bar graphs.

Capable of receiving results from the laboratory information system (LIS) automatically and in the absence of LIS, manual entry is possible.

Demographics data entered in a hospital information system (HIS) automatically appears in the software suite

Ability to export pre-configured combinations of report sections to the  $\ensuremath{\mathsf{HIS}}$ 

Upon starting the application, the system prompts user to log on with username and password. It record users' activities in audit trail.

When no user is logged on, the patient chart disappears from the screen leaving only the patient name and the Vital Signs bar.

The system is configured to log off automatically after a certain interval with no user input.

If data for a variable is not supplied by a device, there is an

option to enter it manually on the flowsheet.

Edited values appear in a contrasting colour on flowsheets

Change of each value on the flowsheet have an associated audit trail.

A physiologic variables summary window is provided in order to monitor device data.

Patient care is documented by setting up items on flowsheets, and recording the actions performed for each item. The items are to be present on flowsheets when the user begin work and also ordering any item needed during a session is possible.

Customizing and editing of an order is also be enabled.

Ordering shall add treatments to the patient chart to schedule activities in advance and documenting the actions performed by the care giver.

The system is capable of printing the following statistical reports such as Length of stay, Mortality report, Bed report, Doctor's report, Matron's report etc.

Multi bed workstations are provided for working with a group of patients. Data for this workstation are entered manually.

Full access to information of all multi bed patients listed in the Census window is provided including the ability to transfer and discharge patients.

Has drivers to connect through RS232 interface (serial connection) medical devices from various manufacturers such as: patient monitor, ventilator, cardiac output monitor, cerebral oximeter, blood gas monitor and transcutaneous monitor.

Has drivers to connect through HL7 network interface to medical devices such as patient monitors, ventilators and capsule.

Connects with any information system that is capable of sending physiological data to the network in HL7 format. The data is delivered to the bed side workstations via real time data interface.

Web-based technology to provide improved accessibility and extended availability of patient information beyond the bedside is to be provided.

Numeric and trended views of significant physiologic data gathered through patient monitoring devices, including colour-highlighted high and low thresholds is to be provided that are configurable by age group.

Users are able to personalise the patient list in order to be more productive.

User are able to access ICU data over the web in a secure manner using a virtual private network connection.

Automatically refreshed detailed patient summary & trended data are available to the user.

Patient summary shall also be printable through this application.

The software is compatible through commonly used browsers