



Bar Code Medication Administration (BCMA) Contingency

What Is The BCMA Contingency System?

A tool to maintain the availability of time-critical medication administration data to clinicians in the event of a planned or unplanned VISTA or network downtime.

BCMA Contingency Relies On

- Inpatient Pharmacy
- Kernel
- HL7

BCMA Backup Features

- Updated via HL7 messages from VISTA, a real-time inpatient record is maintained on contingency workstation
- Unidirectional with built-in potential for bi-directional communication
- Provides 3-7 day Medication Administration Record (MAR) and Medication Administration History (MAH) info to screen or printer
- Multidivisional support
- NEW PERSON synchronization

What Data Is Captured?

- **Inpatient Pharmacy Activities**
 - Unit Dose and IV
 - Active, Pending and Historical
- **Medication Administration Record**
- **Medication Administration History**
- **Patient's Allergies**
- **Patient's Location**

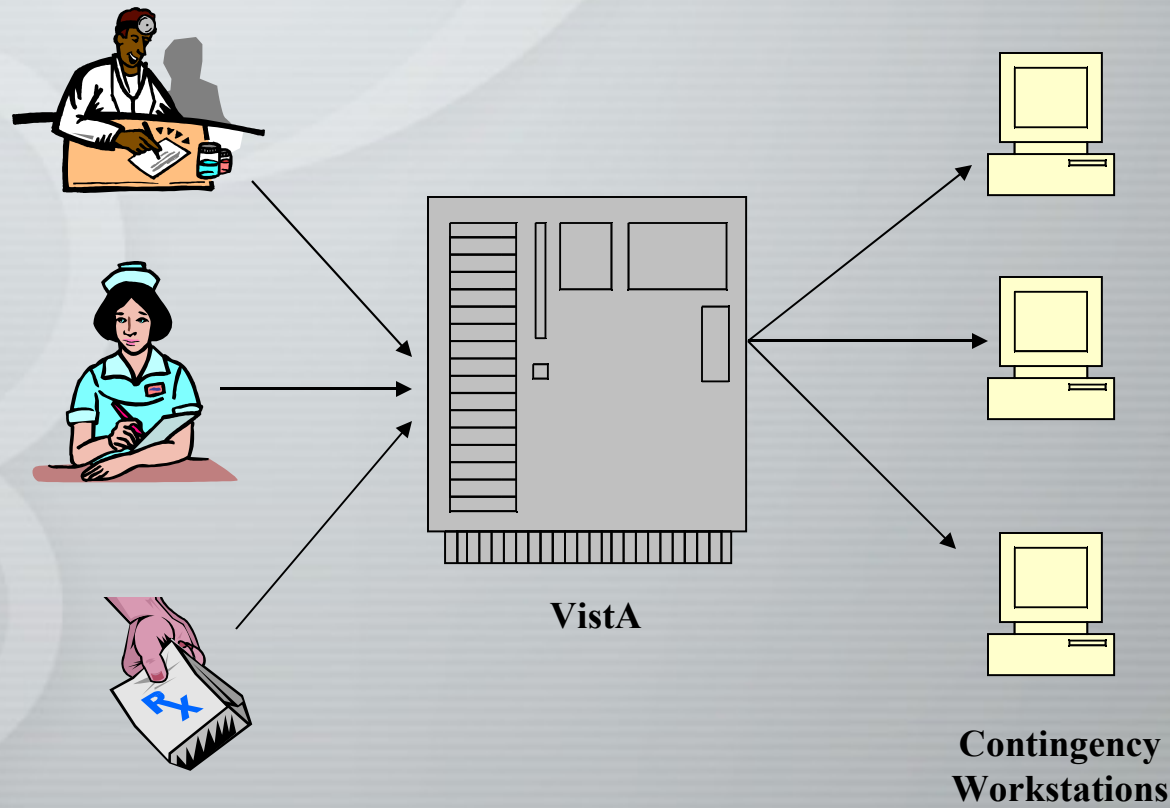
Operating Systems & Mumps Platforms

- **Windows 98/Cachè**
- **Windows 2000/Cachè**
- **Windows NT/Cachè**
- **Red Hat Linux v8/GT.M**

How Does It Send Data?

The workstation is connected to the Main *VISTA* system using the local area network (LAN). Any activity done on the main *VISTA* system will be reflected on the workstation.

Data Flow



Admission Workstation

PATIENT NAME: TEST,PATIENT JR

PATIENT SSN: 000002222

PATIENT DOB: JAN 01, 1950

PATIENT SEX: M

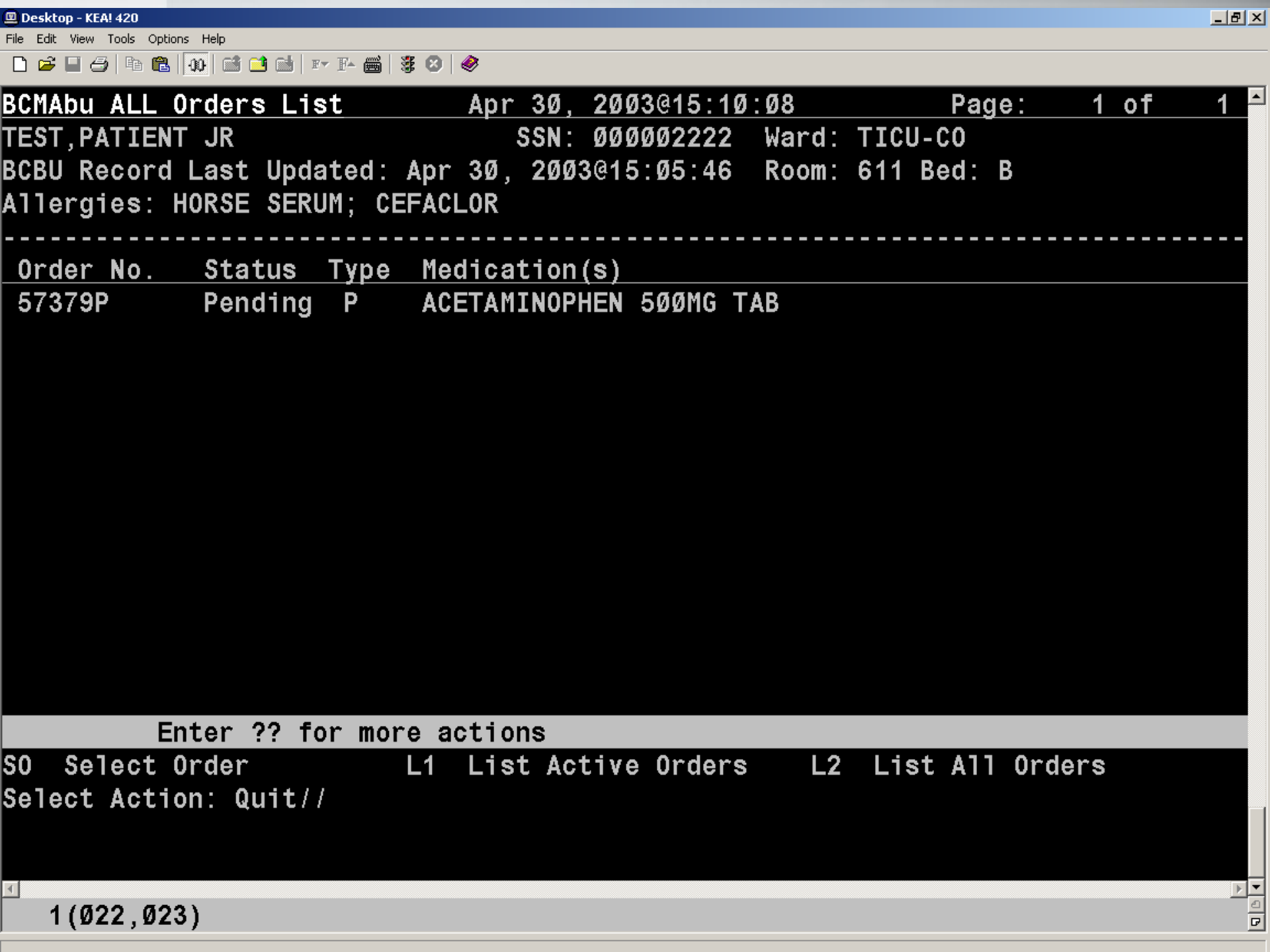
WARD: TICU-CO

ROOM: 611 BED: B

RECORD LAST UPDATED: APR 30, 2003@10:27:30



Workstation Order Data





BCMAbu Selected Order(s) Apr 30, 2003@15:10:38 Page: 1 of 1

TEST,PATIENT JR SSN: 000002222 Ward: TICU-C0

BCBU Record Last Updated: Apr 30, 2003@15:05:46 Room: 611 Bed: B

Allergies: HORSE SERUM; CEFACLOX

Order Number: 57379P Start: <not on file>

Type: PENDING Stop: <not on file>

Status: IP~pending

Drug: ACETAMINOPHEN 500MG TAB

Give: 500MG ORAL BID

Provider: DANE,SID E

RPh/Entry by: DANE,SID E

Admin. Times:

CAUTION! THIS IS A PENDING ORDER :: CHECK WITH PROVIDER!

Enter ?? for more actions

Select Action:Quit// ☐

Workstation Order Data - UD



BCMAbu ALL Orders List May 02, 2003@10:35:28 Page: 1 of 1

TEST,PATIENT JR SSN: 000002222 Ward: TICU-C0

BCBU Record Last Updated: May 02, 2003@10:26:45 Room: 611 Bed: B

Allergies: HORSE SERUM; CEFACLOR

Order No.	Status	Type	Medication(s)
1U	Active	UD	ACETAMINOPHEN 500MG TAB
57380P	Pending	P	DIGOXIN (LANOXIN) 0.1MG CAP
57381P	Pending	P	AMPICILLIN NA 1GM/VI INJ

Enter ?? for more actions

S0 Select Order L1 List Active Orders L2 List All Orders

Select Action: Quit//

1(022,023)



BCMAbu Selected Order(s) May 02, 2003@10:36:30 Page: 1 of 1

TEST,PATIENT JR SSN: 000002222 Ward: TICU-C0

BCBU Record Last Updated: May 02, 2003@10:26:45 Room: 611 Bed: B

Allergies: HORSE SERUM; CEFACLOR

Order Number: 1U Start: Apr 30, 2003@16:05:36

Type: UNIT DOSE Stop: May 13, 2003@14:00

Status: CM~finished/verified by pharmacist(active)

Drug: ACETAMINOPHEN 500MG TAB

Give: 500MG ORAL BID

Provider: DANE,SID E

RPh/Entry by: DANE,SID E

Admin. Times: 0900-2100

Enter ?? for more actions

Select Action:Quit//

1(023,022)

Workstation Order Data - IV



BCMAbu ACTIVE Orders List May 06, 2003@15:32:11 Page: 1 of

TEST,PATIENT JR SSN: 000002222 Ward: TICU-C0

BCBU Record Last Updated: May 06, 2003@15:11:12 Room: 611 Bed: B

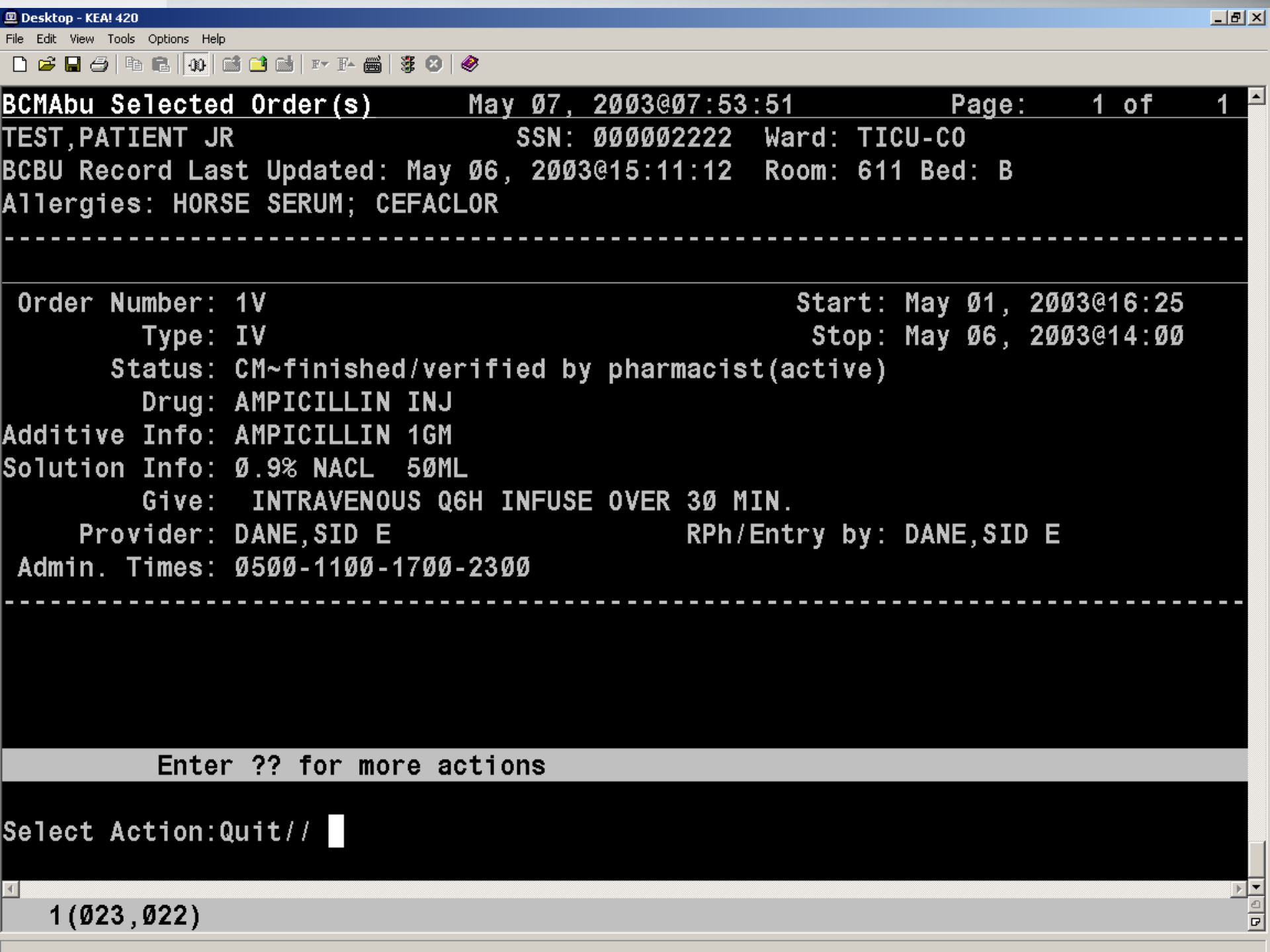
Allergies: HORSE SERUM; CEFACLOR

Order No.	Status	Type	Medication(s)
1U	Active	UD	ACETAMINOPHEN 500MG TAB
1V	Active	IV	AMPICILLIN INJ AMPICILLIN (Additive) 0.9% NACL (Solution)
2U	Active	UD	DIGOXIN (LANOXIN) 0.1MG CAP

Enter ?? for more actions

S0 Select Order L1 List Active Orders L2 List All Orders

Select Action: Quit//



BCMAbu Selected Order(s) May 07, 2003@07:53:51 Page: 1 of 1

TEST, PATIENT JR SSN: 000002222 Ward: TICU-C0

BCBU Record Last Updated: May 06, 2003@15:11:12 Room: 611 Bed: B

Allergies: HORSE SERUM; CEFACLO

Order Number: 1V Start: May 01, 2003@16:25

Type: IV Stop: May 06, 2003@14:00

Status: CM~finished/verified by pharmacist(active)

Drug: AMPICILLIN INJ

Additive Info: AMPICILLIN 1GM

Solution Info: 0.9% NACL 50ML

Give: INTRAVENOUS Q6H INFUSE OVER 30 MIN.

Provider: DANE, SID E RPh/Entry by: DANE, SID E

Admin. Times: 0500-1100-1700-2300

Enter ?? for more actions

Select Action:Quit//

1 (023, 022)

Workstation 3 Day MAR - IV

Office pc - KEA! 420

File Edit View Tools Options Help

MAR Ran: May 02, 2003@14:10:55 Inpatient Pharmacy Orders (Backup) Page: 2

TEST, PATIENT JR SSN: 000002222 DOB: Jan 01, 1950 Sex: M

Ward: TICU-CO Room: 611 Bed: B

BCBU Record Last Updated: May 02, 2003@13:56:19

Allergies: HORSE SERUM; CEFACLOR

Start	Stop	Admin Times	05/02	05/03	05/04
May 01, 2003@16:25	May 06, 2003@14:00	0500			
Order #: 1V	Type: IV	1100			
Status: CM-finished/verified by pharmacist(active)		1700			
AMPICILLIN INJ		2300			

Additive(s): AMPICILLIN 1GM

Solution(s): 0.9% NACL 50ML

Give: INTRAVENOUS Q6H INFUSE OVER 30 MIN.

Provider: DANE, SID E

RPh/Entry by: DANE, SID E

BCMA MEDICATION LOG HISTORY

No Medication Log entries are on file for this order.

1 (024,022)

Workstation 3 Day MAR - UD

Desktop - KEA! 420
File Edit View Tools Options Help

MAR Ran: May 07, 2003@08:15:34 Inpatient Pharmacy Orders (Backup) Page: 2
TEST,PATIENT JR SSN: 000002222 DOB: Jan 01, 1950 Sex: M
Ward: TICU-CO Room: 611 Bed: B
BCBU Record Last Updated: May 06, 2003@15:11:12
Allergies: HORSE SERUM; CEFACLOR

Start	Stop	Admin Times	05/07	05/08	05/09
May 01, 2003@16:25:08	May 13, 2003@14:00	0900			
Order #: 2U Type: UNIT DOSE Status: CM~finished/verified by pharmacist(active) DIGOXIN (LANOXIN) 0.1MG CAP Give: 0.1MG ORAL QAM Provider: DANE,SID E RPh/Entry by: DANE,SID E BCMA MEDICATION LOG HISTORY (since May 06, 2003) No Medication Log entries are on file for this order.					

SIGNATURE/TITLE	INIT	INJECTION SITES (Right or Left)	VA FORM 10-2970
		1. DELTOID	4. MED (ANTERIOR) THIGH 7. ABDOMEN
		2. VENTRAL GLUTEAL	5. VASTUS LATERALIS 8. THIGH
		3. GLUTEUS MEDIUS	6. UPPER ARM 9. BUTTOCK
		10. UPPER BACK	PRN: E=Effective N=Not Effective

1 (024,007)
Start
CPRS TE...
forum - K...
Cache T...
Desktop...
My Docu...
Inbox -
Inbox - Microsoft Outlook
8:54 AM



Drug Administration Workstation



BCMAbu ACTIVE Orders List May 06, 2003@15:32:11 Page: 1 of 1

TEST,PATIENT JR SSN: 000002222 Ward: TICU-C0

BCBU Record Last Updated: May 06, 2003@15:11:12 Room: 611 Bed: B

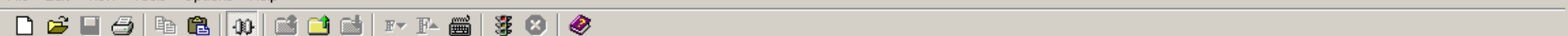
Allergies: HORSE SERUM; CEFACLOR

Order No.	Status	Type	Medication(s)
1U	Active	UD	ACETAMINOPHEN 500MG TAB
1V	Active	IV	AMPICILLIN INJ AMPICILLIN (Additive) 0.9% NACL (Solution)
2U	Active	UD	DIGOXIN (LANOXIN) 0.1MG CAP

Enter ?? for more actions

S0 Select Order L1 List Active Orders L2 List All Orders

Select Action: Quit//



BCMAbu Selected Order(s) May 06, 2003@15:31:12 Page: 1 of 1

TEST,PATIENT JR SSN: 000002222 Ward: TICU-C0
 BCBU Record Last Updated: May 06, 2003@15:11:12 Room: 611 Bed: B
 Allergies: HORSE SERUM; CEFACLOR

Order Number: 1U Start: Apr 30, 2003@16:05:36
 Type: UNIT DOSE Stop: May 13, 2003@14:00
 Status: CM~finished/verified by pharmacist(active)
 Drug: ACETAMINOPHEN 500MG TAB
 Give: 500MG ORAL BID
 Provider: DANE,SID E RPh/Entry by: DANE,SID E
 Admin. Times: 0900-2100

BCMA Medication Log History since

Log Date	Message	Log Entry Person
05/06/03@16:07	GIVEN	COWNIE,KEVIN
05/06/03@16:09	GIVEN	COWNIE,KEVIN
05/06/03@16:11	GIVEN	COWNIE,KEVIN

Enter ?? for more actions

Select Action:Quit//

Workstation 3 Day MAR

Desktop - KEA! 420

File Edit View Tools Options Help

MAR Ran: May 06, 2003@15:34:31 Inpatient Pharmacy Orders (Backup) Page: 1

TEST,PATIENT JR SSN: 000002222 DOB: Jan 01, 1950 Sex: M

Ward: TICU-CO Room: 611 Bed: B

BCBU Record Last Updated: May 06, 2003@15:11:12

Allergies: HORSE SERUM; CEFACLOX

Start	Stop	Admin Times	05/06	05/07	05/08
Apr 30, 2003@16:05:36	May 13, 2003@14:00	0900	_____	_____	_____
Order #: 1U	Type: UNIT DOSE	2100	_____	_____	_____
Status: CM~finished/verified by pharmacist(active)					
ACETAMINOPHEN 500MG TAB					
Give: 500MG ORAL BID					
Provider: DANE,SID E					
RPh/Entry by: DANE,SID E					
BCMA MEDICATION LOG HISTORY (since May 06, 2003)					
Log Date	Message	Log Entry Person			
05/06/03@16:07	GIVEN	COWNIE,KEVIN			
05/06/03@16:09	GIVEN	COWNIE,KEVIN			
05/06/03@16:11	GIVEN	COWNIE,KEVIN			

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Start | Inbox - Microsoft ... | CPRS TEST - KEA! ... | forum - KEA! 420 | Cache TRM:1460 | Desktop - KEA! ... | Document1 - Micr... | 3:34 PM

What Is The Backup Used For?

- **Planned or Unplanned downtime**
 - Ability to look at inpatient med orders for the past, current and pending activity
 - Ability to print out a MAR worksheet for medication administration

What Is The Backup Used For?

By placing a box in the Pharmacy, the Pharmacy staff would have the ability to look at the same inpatient medication activity as the wards.

What Is The Backup Used For?

By placing a box in a location accessible to providers, they would also have the ability to look at inpatient medication activity during system down time.

Security Issues

Multiple Levels of Security:

- Windows/Linux log-on
- **VISTA** log-on
 - VISTA** sign-on security synchronized with NEW PERSON information from production **VISTA**
- **VISTA** option security keys

Future Enhancements

- **Bi-directional functionality**
 - Data entered on the Contingency workstations will automatically update the *VISTA* system when it is back on-line.
- **GUI interface for the workstation**
- **Expanded to include additional clinical data on the Contingency workstations**